

India Case Study

Situation Analysis on the Effects
of and Responses to COVID-19
on the Education Sector in Asia



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October 2021

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Foreword

The pandemic caused a major children's rights crisis: all service sectors being profoundly impacted, with the most disadvantaged being disproportionately affected.

COVID-19 – possibly the largest pandemic the world has ever seen- led to an economic crisis probably more radical and global than ever before; as well as disruption of learning on an unprecedented scale. The pandemic caused a major children's rights crisis: all service sectors being profoundly impacted, with the most disadvantaged being disproportionately affected.

In response, with support from the Global Partnership for Education, UNICEF and UNESCO joined forces with Mott MacDonald, Cambridge Education to carry out a situation analysis, primarily to generate analyses to inform strategic responses to the crisis going forward. While the extension and duration of the pandemic required to invest more time to produce the final analyses and reports, fortunately information had already been discussed through webinars and national conversations with Ministries of Education and other partners across large parts of the Asia Pacific region.

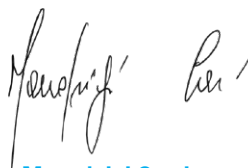
Furthermore, the reports continue to be of utmost relevance given subsequent waves of COVID-19 sweeping across the world in 2021 and very likely in 2022 as well. The task of learning from the crisis and how to mitigate its effects in education is on-going. More than one academic year has now been lost for many children. To ensure continuity of learning whilst schools are closed, the delivery of education is radically changing today through distance education: digital, blended or hybrid learning have become part of the new learning reality which all Governments, teachers and learners will have to adjust to.

While major efforts are needed to mitigate the learning loss of those children who return to school in the post-COVID-19 recovery phase, we must also remember that many children were not learning before the crisis and several million were not even in schools. The reports therefore also explore opportunities to build back better and to re-imagine education; to shift from fact-based didactic methodologies to competency-based approaches, which are more flexible, better respond to the holistic needs and aspirations of all children, and provide opportunities for life-long learning as per the Sustainable Development Goals (SDG) 4 agenda.

While the suite of reports provided within the Regional Situation Analysis are particularly relevant to the Asia Pacific region, contexts of course vary considerably across our huge region. At the same time, the reports may also provide insights that are relevant to other regions around the world. Hopefully the findings, including the country case studies, and regional budget needs analysis will help governments resume and accelerate progress towards SDG 4. The way education is conceptualized and delivered is changing fast, and the transformation journey will be steep and full of challenges. Governments, donors, all partners and the private sector will need to work together, not only to get the strategies and levels of investment right, but to build more resilient, effective and inclusive systems, able to deliver on the promise of education as a fundamental human right for all children, whether schools are open or closed.



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List of acronyms

AAC	Alternative Academic Calendar
ASER	Annual Status of Education Report
CBSE	Central Board of Secondary Education
COVID-19	Coronavirus disease
DIKSHA	Digital Infrastructure for Knowledge Sharing
EdTech	Education Technology
FLN	Foundational Literacy and Numeracy
GBV	Gender-based violence
GDP	Gross Domestic Product
GPE	Global Partnership for Education
ICT	Information and communication technology
MoE	Ministry of Education
MoHFW	Ministry of Health and Family Welfare
MP	Madhya Pradesh
NCERT	National Council for Education Research and Training
NEP	National Education Policy
NGO	Non-governmental organization
NROER	National Repository of Open Educational Resources
OOS	Out of school
PMMVY	Pradhan Mantri Mantru Vandana Yojana
SDG	Sustainable Development Goals
SMC	School Management Committees
SOP	Standard operating procedures
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh
UT	Union Territory
WASH	Water, sanitation and hygiene

Executive summary

Introduction

The effects of COVID-19 around the globe have been both unanticipated and significant. This country case study is part of the broader analysis initiated by UNICEF and UNESCO to provide a snapshot of the education sector responses to the effects of COVID-19 across Asia. It considers the direct effects of school closures and reopening, and identifies the initial impacts on learners, their families and on the education system as a whole. It aims to develop insight based on the variety of responses to the pandemic with a view to assessing their efficacy. It seeks to understanding the contextual factors that may have supported or hindered learning, paying particular attention to the most disadvantaged groups who will be disproportionately affected by the pandemic. The analysis has the following objectives:

- To assess and estimate the various impacts of the COVID-19 pandemic on the education sector and stakeholders in Asia
- To examine the policy and financial implications of progress towards achieving SDG4 (Education) by 2030

- To identify examples of promising responses and strategies in education and associated social sectors which can be shared with other countries.

The Situation Analysis identifies examples of effective country approaches which could be replicated or adapted for use elsewhere. Following the development of the 14 country case studies (including this India situation analysis), the overall study includes an overview of the situation in each of the three Asian sub-regions and finally the region.

This India case study involved a desk-based review of secondary data as well as interviews and focus group discussions with government schoolteachers, teachers' union representatives from various states, and a few organizations working on EdTech. The case study focusses on a 'deep dive' into the challenges faced by teachers in conducting distance-learning activities while schools were closed. Finally, the case study presents lessons learned and recommendations on how to strengthen systems to provide a stronger education sector to bridge the gap between the reality and ambitions of India's education policy.



Context

In India more than 10 million COVID-19 cases have been recorded to date. India is the second most impacted country in the world after the United States but with far fewer recorded deaths. The first case was officially recorded on 30 January 2020; India went into full lockdown on 24 March with little warning to the general public. The sudden lockdown had a severe impact on millions of low-income migrant workers and daily-wage earners. It is estimated that between 2 million and 10 million migrants were impacted by COVID-19.¹ Due to the increasing case numbers, the national lockdown continued until June and was slowly lifted in a phased manner, even though cases were on the rise, due to the economic shutdown that succeeded the public health lockdown.

Since mid-January 2020, the government has issued international travel advisories, ensured mandatory compliance with travel restrictions and quarantines, rolled out mass awareness campaigns on hygiene and social distancing, and imposed a national lockdown to control the spread of infections. Given the complexities of the Indian context and the fears of the devastation the virus could cause, the swift, decisive and strictly imposed restrictions may have contributed to saving lives in the long run. A year after the first case was recorded, on 30 January 2021, India had only 13,000² new cases across the entire country. This is an exponential decrease from almost 100,000 cases per day during the peak of the pandemic in September 2020.

Effects of COVID-19 on the education sector

Access to and participation in learning

All education institutions in India were temporarily closed in March 2020 as most schools were wrapping up the 2019–20 academic year. The new school year would have started in May but, amid the upsurge in COVID-19 cases across the country, it was not possible to resume in-school teaching. In April 2020, the Ministry of Human Resource Development (renamed the Ministry of Education from July 2020 after the National Education Policy (NEP) 2020 was published) presented Alternative Academic Calendar (AAC)³ guidelines on continuing formal education online

in the 2020–21 academic year. As of January 2021, many states were yet to reopen their schools.

Closures have affected millions of learners from pre-primary to secondary levels of schooling. The transition from face-to-face to distance learning has shone a spotlight on the vast inequalities within the education system between and within states. Inequalities are seen in the capacity of teachers, learning outcomes, digital infrastructure provided by the government and access to technology. Although a lot of digital content has been generated and transmitted to help children continue to learn from home, there is limited evidence on the extent to which this content reaches children; whether they are engaging with it; and the impact it is having. The AAC assumes that Indian states have established digital ecosystems where all teachers and students enjoy seamless access to the internet and smartphones. However, a 2019 report found that only 32 per cent of the rural population of 12+ years and 54 per cent of urban population had internet access, and that only 11 per cent of Indian households have computers such as desktops, laptops and tablets (excluding smart phones).⁴

A status report on schools during COVID-19⁵ indicated that children studying in government schools were hit particularly hard, with more than 80 per cent of government school students in Odisha, Bihar, Jharkhand, Chhattisgarh and Uttar Pradesh not receiving any educational materials during the lockdown.⁶ This failure was mostly because families did not have access to digital devices and e-learning tools. In homes that had digital access, WhatsApp was the primary mode (75 per cent) for delivering education in both public and private schools, followed by phone calls between teachers and students (38 per cent). But more than 75 per cent of parents had trouble ensuring WhatsApp lessons because of the lack of an internet connection or the inability to afford it, or because of poor internet speed/signal.

The COVID-19 crisis has meant limited or no education, or falling further behind their peers, for many who already experienced barriers in accessing education – children with disabilities, students in remote locations, children of migrant workers, refugees and asylum seekers or those whose families have lost their source of livelihood and incomes. This could force many children to discontinue their studies even after ‘normality’ is restored.⁷

For children, school is far more than just attending classes. With the lockdown, children miss out on the joy of play and interactions, sports and talking with friends. These

extracurricular activities are equally formative to a child's growth as academic study and are not catered for through distance learning. A school also provides essential basic services (such as midday meals, immunization and health checks) that are difficult to substitute. Time will reveal the non-academic impacts a year-long closure of schools will have on the growth and development of a generation of students.

Health, well-being and protection

Health: India has 120 million children enrolled in the midday meal scheme in over 1.26 million schools across the nation.⁸ This meal is a huge incentive for many children to attend school, but lockdown and COVID-19-related disruptions have prevented the initiative in many states and union territories, thereby depriving children of what is often the most nutritious meal of their day.

Schools also regularly offer provisions such as sanitary products. These are essential services for adolescent girls, especially given the extreme barriers they face for maintaining basic menstrual hygiene.⁹ Menstruation taboos, particularly in rural India, bring with them increased censorship and restrictions on girl's mobility, concerns of sexual violence, early marriage and serious health risks. This provision has also ceased, adding to the challenges faced by adolescent girls due to school closures.

Social protection: the government is to be commended for scaling up social assistance under the Pradhan Mantri Garib Kalyan Yojana, providing a package of cash and in-kind social assistance to protect poor and vulnerable households. While India's social protection programmes span major life stages, there are notable limitations in reach and impact – even before the start of the pandemic, only 39 per cent of eligible women with newborns received maternity benefit under the Pradhan Mantri Matru Vandana Yojana (PMMVY). And the majority of India's workforce is informal and without social protection.¹⁰ The COVID-19 pandemic underlined the structural challenges in India's social protection system, which is fragmented and largely implemented through complex centrally sponsored schemes. Investing in integrated social protection across the lifecycle will support multidimensional vulnerabilities (both social and economic) and help people to cope with shocks and other risks.¹¹

Gender-based violence and violence against children:

crises tend to increase the risk of gender-based violence for women, and violence against children and sexual minorities. Physical distancing, restrictions on mobility, fear of getting infected, and confinement at home, coupled with increased tensions and economic stress all increase the risk of gender-based violence, especially where the risk is already pronounced. The National Commission for Women recorded a more than two-fold surge in complaints of violence against women and girls in the week following the lockdown.¹² At the same time, helplines operated by non-governmental organizations (NGOs) have reported a drop in the number of calls received, which may be partly due to the difficulties faced by women in reaching out for support due to restrictions on mobility.¹³ Of the calls received by Childline India Helpline, nearly 30 per cent were seeking protection against abuse and violence towards children.¹⁴

Finances

The pandemic has had a drastic effect on India's economy, and unemployment has risen. Due to the combined effect of the demand shock and supply disruptions following lockdown, the growth rate projections for the Indian economy for 2020–21 have repeatedly fallen from 1.9 per cent (in April 2020)¹⁵ to 1.2 per cent (in May 2020).¹⁶ In October 2020, the IMF projected a 10.3 per cent contraction for the Indian economy in 2020.¹⁷ For the first time in 40 years India has had a negative growth rate.¹⁸

Unemployment has been growing since January 2020 when the first cases of coronavirus were detected. According to the Centre for Monitoring Indian Economy, India's unemployment rate peaked in May 2020 at 24 per cent (26 per cent in urban and 23 per cent in rural areas), although the rate had fallen to under 7 per cent by November 2020.¹⁹ Close to 122 million Indians had lost their jobs in April alone. Of these, 91.3 million were small traders and labourers. A significant number of salaried workers (17.8 million) and self-employed people (18.2 million) also lost work.²⁰

Responses to COVID-19

The Government has taken several steps to reduce the negative impact of COVID-19 on the education sector. The system has been quick to transition to distance learning, teachers have worked hard to adapt to the changing nature of their role, and parents and communities have come together to support their children's learning. India's education sector saw a surge in solutions to support students during the COVID-19 lockdown. They included core remote-learning solutions (traditional tools such as textbooks and home visits, tech-enabled and mass communication solutions such as WhatsApp, YouTube, TV and radio, and blended solutions that combine face-to-face with e-learning) and learning enabling solutions (such as midday meals, sanitation kits and monetary support). The Ministry of Education has also made a strong effort to create a repository of learning content and implement EdTech interventions (in partnership with NGOs) to increase access to digital learning. Notable government e-learning platforms include Digital Infrastructure for Knowledge Sharing (DIKSHA), e-Pathshala, Swayam and the National Repository of Open Educational Resources (NROER).

State governments have the responsibility for implementing the policies and guidelines developed by central government. Responses to COVID-19 therefore vary by state, with solutions for learning continuity tailored to local needs: Gujarat focussed on distributing QR-coded textbooks; Bihar and Uttar Pradesh focussed on learning programmes on TV; Assam distributed worksheets along with midday meals; Kerala also focussed on textbook distribution and WhatsApp groups.²¹ Odisha has turned to radio as online classes failed to reach all students due to poor mobile connectivity.²² The Ministry of Home Affairs Order of September 2020²³ allowed states to begin phased reopening of schools from 15 October, except in containment zones. The decision to reopen rests with the state governments. While decision-making based on the local context is important, this means that students across India had varying experiences of returning to school depending on where they live, which further widens the learning divide within and between states.

Evidence from prolonged school closures in the past shows that such disruptions can set children back for life. It is therefore crucial that quick, large-scale and standardized efforts are made to recognize and address the learning gaps. This is especially the case for early grades where solid foundational skills are essential for learning progress. Basic literacy levels, language and mathematics must be assessed, and adaptive remedial strategies put in place to help children catch up. Initiatives like Pratham's 'Teaching at the Right Level' through 'learning camps' and accompanied assessments can be adopted widely to reduce the learning inequalities among younger children resulting from distance learning.

In July 2020, the Union Cabinet approved the NEP 2020 under the Ministry of Education. The Policy comes at a unique time and provides the government with various avenues to build a more holistic and resilient education system as India comes out of the pandemic. NEP 2020 is ambitious in both scope and scale, and envisions a complete overhaul of the education sector. The proposed allocation of 6 per cent of India's gross domestic product (GDP) to the sector indicates the government's commitment to making the vision a reality.

"National Education Policy of 2020 is looking to bring a paradigm shift in how we, as a society, perceive education and how it is imparted in schools across the country. In fact, it makes us re-examine the very purpose of going to school."²⁴

Challenges faced due to the digital divide among teachers

The rapid shift to e-learning prompted by the pandemic has brought to light long-standing issues of inequality and a digital divide that must be addressed by future economic, education and digitalization policies. While the ambition to expand e-learning is impressive, most government schoolteachers and students lack the tools, infrastructure and capacity to be a part of this digitalization process. Some of the key challenges faced by teachers are:

- Low capacity in digital and e-learning skills – very few teachers had prior training or experience of delivering high quality lessons through a blended approach using digital tools and online platforms. This will lead to further inequalities in children's quality of learning between those whose teachers had higher capacity versus those who did not.
- Poor systemic support – teachers felt inadequately supported by the government. They were not provided with the digital tools (mobile phones, laptops, reliable internet connectivity etc.) they needed to continue teaching from a distance; they received no guidance on how to navigate the overwhelming content on e-learning platforms such as DIKSHA; and there was limited guidance on how to reach all children. In some states teachers did not even receive their salaries.
- Inability to reach all students – with limited capacity and access to good technology, teachers struggled to reach all their children, especially learners in remote areas or at risk of dropping out.
- Preference for in-person teaching – there was a consensus among teachers and union representatives that interaction with children cannot be replaced by voluminous content, no matter how audio-visually striking it may be.

One of the critical challenges as countries move towards using technology to complement classroom-based learning, or even offer an alternative to face-to-face teaching, is teachers' capacity. The digital divide for teachers must be reduced, and they must be prepared, consulted and situated within an enabling ecosystem to lead this process.

Lessons learned

The following lessons, which inform the recommendations, focus on the challenges faced by Indian teachers and have been identified through reflection on the available literature and interviews with key stakeholders.

Strategic planning – Countries across the world have had to take drastic measures to curb the spread of the COVID-19 virus, often leaving people unprepared for the consequences. Schools and teachers were completely unprepared to make an overnight switch from classroom-based to distance learning for an indeterminate period of time. Forward planning and time for preparation, including teacher training, school hygiene and building student familiarity with information and communications technology (ICT) could have made it easier for the education sector to adapt to school closures. Learning from this experience is essential for devising a strategic response to similar emergencies in the future.

Acknowledging and addressing the digital divide – Device and data affordability, plus network connectivity infrastructure, have been the largest challenges to continued learning, according to parents and teachers. An important prerequisite is the establishment of a stable and widespread power infrastructure which provides reliable, cheap and uninterrupted electricity to support technology use.

Teacher support – Teachers are the cornerstone of the education system. They are crucial to the overall development of children and must be provided with all the necessary tools to perform their duties successfully. Given the ambition to move towards a blended-learning education system there is a need to consider the changing role of teachers, as well as what professional development and support they need.

EdTech roll out – In addition to issues around access, navigation and quality, there seems to be growing scepticism around the purpose and effectiveness of e-learning. Buy-in from teachers, administrators and parents is crucial for the successful roll-out and adoption of EdTech initiatives. There also needs to be a recognition of the irreplaceable value addition of in-person interaction of students and teachers in schools. Holistic development of children in schools (through interaction with their peers of different cultural and religious backgrounds, group work, play and a strong sense of community) leads to social cohesion, tolerance and peacebuilding. The development of these soft skills through long-term interpersonal relations and the celebration of India's diversity cannot be duplicated online or through technology.

Recommendations to build back better

These recommendations consider ways to build on the successes and lessons learned from the COVID-19 experience:

- **Reduce the digital divide** – increase access to technology through partnerships with mobile networks to provide free or subsidized data for educational purposes. Add digital services to social protection schemes, customize existing learning applications to work on slower internet connections, and invest heavily in bringing a reliable electricity supply to even the most remote areas.
- **Upskill teachers for e-learning** – invest in teachers and provide them with continuous support to be able to provide e-learning and distance education to all their students during school closure and afterwards through a blended form of instruction.
- **Develop a distance learning strategy for the most marginalized** – to be more resilient in the face of another systemic shock, contextualized strategies to promote distance learning are needed to ensure that the most marginalized children do not drop out and can continue learning. The strategy should focus on identifying why certain children are more at risk of dropping out or falling behind; developing context-specific solutions to reach these children; teaching them foundational literacy and numeracy skills; and

addressing the underlying reasons for children being at risk and providing a safety net against dropping out.

- **Improve data collection to guide targeted investments** – real-time data needs to be collected through comprehensive monitoring. This should include data on water, sanitation and hygiene (WASH) facilities in schools and compliance with safe school guidelines, and on school infrastructure – particularly the quality of electricity supply and internet connection.

Conclusion

The Government has made huge efforts to respond to effects of COVID-19, and its commitment to education is reflected in the 2020 NEP, published despite the pandemic. Its decentralized approach to dealing with the effects of COVID-19 makes sense in such a populous and diverse country, and some states have developed approaches that could be usefully replicated elsewhere. The importance of using digital technology in future is stressed in both the NEP and in the response to COVID-19, but there are many reasons why digitalization will only provide part of the educational infrastructure in future. Addressing the learning loss suffered by children during school closures, particularly children from poor and displaced families, will be critical to recovery.

The table below provides a snapshot of the pandemic, education sector response and background information for India.



Country fact sheet

DIMENSION	INDICATOR/QUESTION	INFORMATION	
Epidemiology ²⁵	Date of first confirmed case	30 January 2020	
	Date of first confirmed death	12 March 2020	
	COVID-19 cases and deaths over time	Total confirmed cases: ~10.8 million Total deaths: ~155,000 Total recovered: ~10.5 million	
	Details about the pandemic and government responses and supports	See Chapter 2	
School closure	Were schools closed, partially or fully	Fully	
	Date of school closures	24 March 2020 (national closure)	
	Date of school reopening	Decision to be made by state governments depending on local context, after 15 October 2020	
	Have schools reopened fully or partially	Partially	
	What phase is the country currently? Phase 1, 2 or 3 and is this nationally or regionally? (as per section 1.3)	Some states are in phase 2 (part of the re-opening process) while others are in phase 3 (with school reopened)	
Key vulnerable groups	Key vulnerable groups affected by the impact of COVID-19 on the education sector	Children in remote rural areas; from extremely poor households; from marginalized castes; with disabilities; adolescent girls; from urban slums; out-of-school children	
Education system structure	Brief description of the structure of the education system – federal or centralized	Policies developed at central level nationally, but implementation is decided by state governments and depends on local context	
Education data ²⁶		Primary	Secondary
	Number of learners (2019)	120,064,160	130,932,816
	Number of teachers (2019)	4,339,390	6,103,309
	Number of education institutions	68,169 schools cover both primary and secondary grades 1,270,407	212,424
Pre-COVID-19 progress towards SDG4 indicators ²⁷	Out-of-school (OOS) rate Completion rate	OOS rate, primary (2013) = 2.0 Completion rate, primary (2019) = 92 Completion rate, secondary (2019) = 83	



01

Introduction



Across the continent there is great inequality between the rich and the poor and therefore different levels of resilience to the shocks that this disease has brought, putting the poor at long-term risk far beyond contracting the virus. This region regularly suffers from shocks which lead to localized learning interruptions.

1.1 Background

The global nature of the COVID-19 pandemic has affected the whole world with the twin shocks of a health emergency and an economic recession. This will lead to long term costs on human capital accumulation, development prospects and welfare. The pandemic has affected all parts of the world and the responses to the situation have disproportionately affected the most vulnerable and marginalized members of society.

Some of the most vulnerable children felt the side-effects of COVID-19 from the moment nationwide lockdowns were put in place to control the spread of the disease. Markets, workshops, farms and factories closed, leaving children and families stranded. For many, the fear and uncertainty continue. Some minorities find themselves stigmatized and accused of causing or spreading the pandemic. Deep-rooted inequalities in societies are being exposed.

Asia, with its huge population and many overcrowded cities, is potentially very vulnerable to COVID-19 which spreads through close contact with infected people. The contexts within which people of South Asia, Southeast Asia and East Asia are having to cope with the virus are vastly different, with a disparity in living conditions and varying degrees of access to and quality of essential services such as health and education. Across the continent there is great inequality between the rich and poor and therefore different levels of resilience to the shocks that this disease has brought, putting the poor at long-term risk far beyond contracting the virus. This region regularly suffers from

shocks which lead to localized learning interruptions. For example, during the pandemic Bangladesh and India were in the path of a cyclone and there have been recent floods which threatened communities, giving them a double shock.

This Situation Analysis has been undertaken as part of a broader analysis initiated by UNICEF and UNESCO to provide a snapshot of the educational responses and effects of COVID-19 across Asia. It considers the direct effects of school closures and reopening and identifies the initial impact that this may have on learners, their families and on the education system as a whole. It aims to develop insight based on the variety of responses to the pandemic with a view to assessing their efficacy in Asia, seeking understanding of the contextual factors that may have supported or hindered learning, paying particular attention to the most disadvantaged groups who will be most affected by the pandemic. The analysis has the following objectives:

- To assess and estimate the various impacts of the COVID-19 epidemic on the education sector and stakeholders in Asia.
- To examine policy and financial implications of progress towards achieving SDG4 (Education) by 2030.
- To identify examples of promising responses and strategies in education and associated social sectors which can be shared with other countries.

Following the development of the case studies (including this India situation analysis), the overall study will include an overview of the situation in each of the three Asia sub-regions and the region as a whole.

1.2 Methodology

The UNICEF and UNESCO offices in each country supported the case studies by providing information and contacts with relevant officials. This allowed the researchers to collect country-specific documents, grey literature and data to describe the COVID-19 journey across Asia, its impact and the responses of each education system.

In addition to a literature review, each case study has also involved interviews with key stakeholders (listed in Annex A) which include teachers and teacher unions from several different states, NGOs working on digital education and UNICEF and UNESCO teams. Interviews yielded first-hand information about the challenges and how the responses were developed. The conversations provided opportunities to discuss the lessons learned and what remains to be done. For this case study, the interviews were held in October 2020, and reflect the experience of teachers up to that date – the situation may have evolved since then. The India case study does not analyse the pandemic's effect and government response in depth: instead it looks more broadly at some common issues and acknowledges that the Indian context is both diverse and complex.

1.3 Structure of the case study

The case studies are structured in four sections. After this introduction and a country fact sheet, Chapter 2 discusses the effects of COVID-19 on the education system against four dimensions (see Figure 2 below) and the responses to the effects by the education sector are set out against the three phases of school re-opening (see Figure 1 below) depending on the specific context of each case study country. Chapter 3 provides a 'deep dive' into a particular theme identified by the UNICEF and UNESCO country teams. For the India case study, the deep dive focusses on the challenges faced by teachers during school closure as a result of the digital divide. In addition to the desk review, interviews and focus group discussions were held in October 2020 with teachers and teacher union representatives from various states. Chapter 4 provides an overview of the lessons learned, provides specific recommendations based on these lessons and looks to the future in an effort to build back better and increase the resilience of the Indian education system to future shocks.

FIGURE 1 | THREE PHASES OF SCHOOL REOPENING

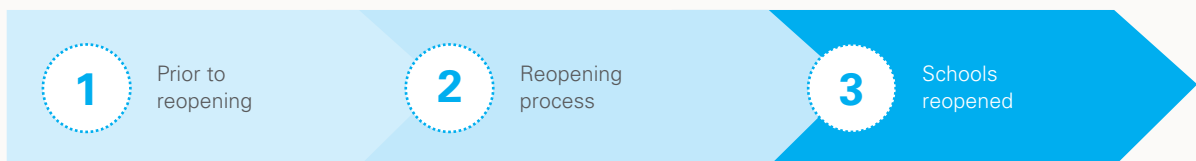
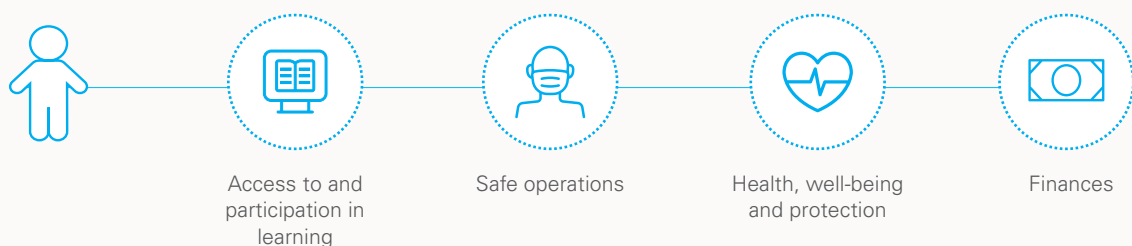


FIGURE 2 | FOUR DIMENSIONS OF ANALYSIS OF EFFECTS





Government of Rajasthan
WORKBOOK
ENGLISH
CLASS
C D E

She is I am They
We are

राजस्थान राज्य शैक्षिक अनुसंधान एवं प्रशिक्षण परिषद, उदयपुर

02

Effects of and response to COVID-19 on the education sector in India



The sudden lockdown had a severe impact on millions of low-income migrant workers and daily-wage earners. It is estimated that between 2 million and 10 million migrants were impacted by COVID-19.

2.1 Context

To date, more than 10 million COVID-19 cases have been recorded – India is the second most impacted country in the world after the United States but with far fewer recorded deaths. The first case was officially recorded on 30 January 2020.²⁸ India went into full lockdown on March 24 with little warning to the general public: at the time, India had just 500 confirmed COVID-19 cases and fewer than 10 deaths.²⁹ The sudden lockdown had a severe impact on millions of low-income migrant workers and daily-wage earners. It is estimated that between 2 million and 10 million migrants were impacted by COVID-19.³⁰ Due to the increasing case numbers, the national lockdown continued till June 2020, and was slowly lifted in a phased manner across the country, even though cases were increasing, because of the economic shutdown that succeeded the public health lockdown.

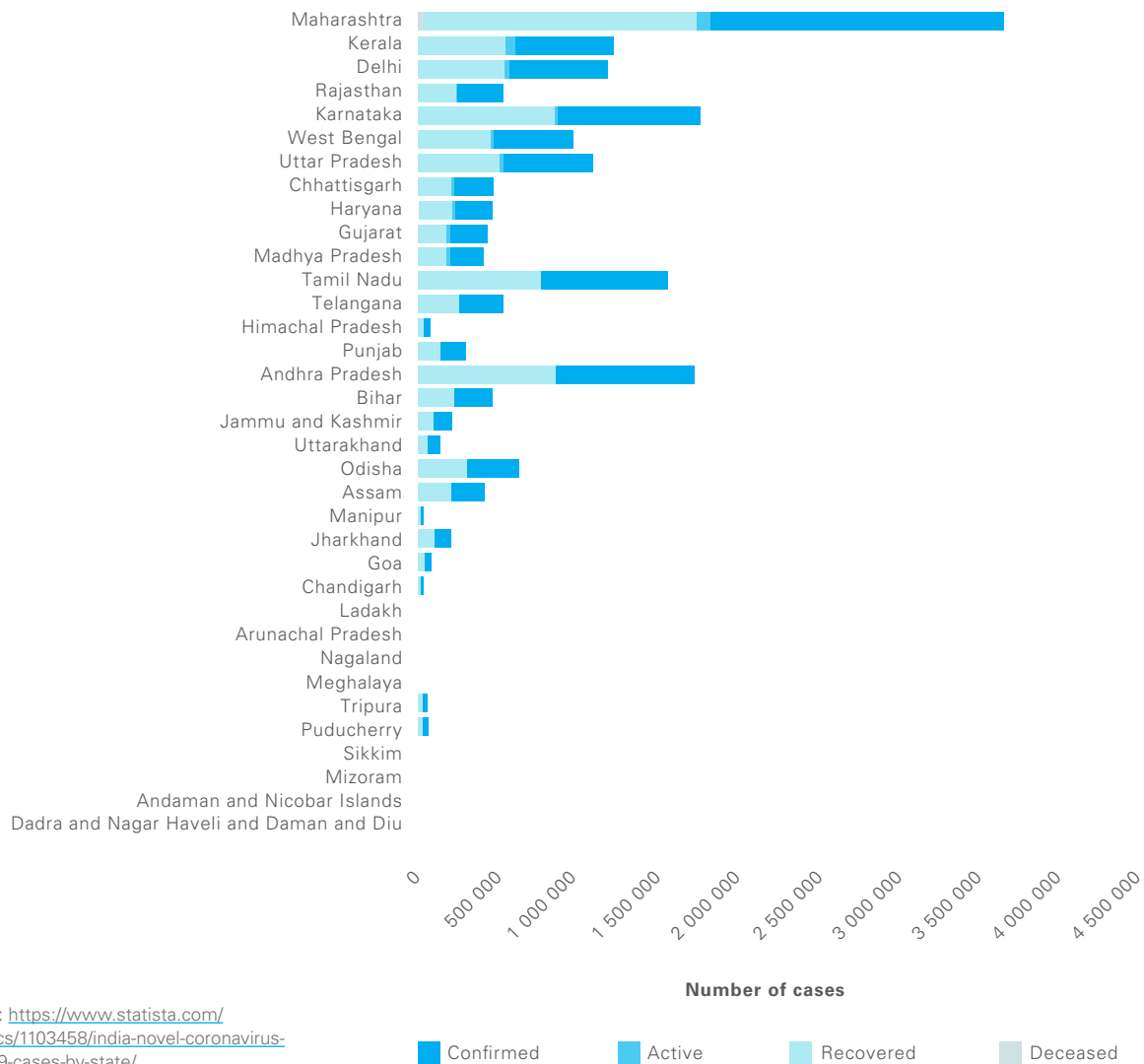
Given the key role of state governments in India's health system, the India's response needs to be understood from a state-level perspective. There is massive geographic variation in COVID-19 cases and deaths among the states in India (see Figure 3 on next page). For example, Kerala received accolades from the United Nations for the COVID-19 response strategies it adopted in the early stages of the pandemic.³¹ The state's investment in public health and experience tackling the Nipah outbreak in 2018 may have contributed to its capacity and preparedness to swiftly handle the current outbreak,³² while other states were struggling initially.

Since mid-January 2020, the government has issued international travel advisories, ensured mandatory compliance with travel restrictions and quarantines, rolled out mass awareness campaigns on hygiene and social distancing, and imposed a national lockdown to control the spread of infections. The Epidemic Diseases (Amendment) Ordinance, 2020, the Disaster Management Act, 2005, and Section 144 of the Indian Penal Code were invoked to restrict people's movement and to curtail exports of essential medical and non-medical goods. On 22 March 2020 guidelines and action plans for control and quarantine were provided by the Ministry of Health and Family Welfare (MoHFW) through the COVID-19 containment plan.³³

From an economic perspective the COVID-19 response has led to the loss of livelihood of millions of people and had a crushing effect on the economy which has contracted dramatically. The Atmanirbhar Bharat ('Self-reliant India') stimulus package announced in May is not small at \$110 billion – it is equivalent to 10 per cent of India's GDP.³⁴ But it comprises mostly monetary interventions to provide liquidity with a longer-term intention to boost the economy. In terms of funding responses and relief measures targeted at the poor and vulnerable, the COVID-19 Economic Task Force introduced the \$23 billion Pradhan Mantri Garib Kalyan Yojana relief package. This programme provides free essential food items, cooking gas, direct cash transfers to the poor and insurance coverage to COVID-19 health workers.³⁵ According to the Brookings policy analysis, this relief package:

"Falls short as it mostly reallocates funding across existing budgets or allows people to make advance withdrawals on their social benefits rather than mobilizing additional funding."³⁶

FIGURE 3 | NUMBER OF COVID-19 CASES ACROSS INDIAN STATES AND UNION TERRITORIES AS OF 3 DECEMBER 2020



Given the complexities of the Indian context and the fears of the devastation the virus could cause, the swift, decisive and strictly imposed restrictions have contributed to saving lives in the long run. A year after the first case was recorded (on 30 January 2021), India had only 13,000³⁷ new cases across the entire country. This is an exponential decrease from almost 100,000 daily cases during the peak of the pandemic in September 2020. Having said that, the

government now needs to do more to help the families of low-wage workers displaced from their jobs by the lockdown and the weakening economy.

This chapter looks at how COVID-19 has affected India's education sector, and the responses that have been developed to mitigate these effects.

2.2 Effects of COVID-19 on the education sector

Access to, and participation in learning

India has the world's second-largest school system, after China.³⁸ Shutting schools to maintain social distancing during the COVID-19 crisis was the most logical solution to avoid community transmission in the initial response to COVID-19, given uncertainty over transmission rates among school-aged children and the potential impact of the virus. All education institutions in India were temporarily closed in March 2020. As India went into lockdown at the end of March 2020, most schools were wrapping up the 2019–20 academic year. By May, amidst the upsurge in COVID-19 cases across the country, it became clear that it would not be possible to resume in-school classroom sessions for the new academic year. In April 2020, the Ministry of Human Resource Development (renamed the Ministry of Education in July 2020 in line with the NEP) presented the Alternative Academic Calendar for Students (AAC)³⁹ guidelines on continuing formal school education online. The AACs are a set of four documents – one each for primary, upper primary, secondary, and higher secondary schooling – that outline measures for educators to ensure continuity in curriculum learning from the safety of students' homes through a blend of online and offline activities.

The closures have affected millions of learners across India from pre-primary through secondary levels of schooling. Although a lot of digital content has been generated and transmitted to help children continue to learn from home, there is limited evidence on the extent to which

this content is actually reaching children, whether they are engaging with it and the impact it is having on their participation and learning. The 2020 Annual Status of Education Report (ASER)⁴⁰ survey was adapted to a phone survey format that could be conducted in multiple waves, in order to capture the effects of the pandemic on different aspects of children's education. It explores the provision of, and access to, remote education mechanisms and materials in rural parts of the country, and the ways in which children, families and educators are engaging with these from their homes. Key findings from the ASER survey include:⁴¹

Access to and availability of learning materials and activities

Only 36 per cent of all enrolled children received learning materials or activities from their teachers:

- 37 per cent of children in higher grades (Grade 9 and above) received learning materials, compared to 31 per cent of children in lower grades (Grades 1–2). These percentages were consistently higher for children in private schools compared to government schools across all grades.
- Among those who did receive learning materials, 67 per cent of government school students and 87 per cent of private school students received them on WhatsApp. Government schools tended to use phone calls and personal visits more often than private schools.
- Of the enrolled children who didn't receive any learning materials, 68 per cent of parents cited schools not sending materials, while 24 per cent of households stated not owning a smartphone as the reason. This number was almost 5 per cent higher for government schools than private schools.

Children's engagement with remote learning

Of the 36 per cent of households which did receive learning materials during the survey week, most reported that children engaged in some kind of educational activity during that week:

- For children in all schools, 60 per cent reported using textbooks.
- Students in higher grades were more likely to engage with online classes or video recordings than their younger counterparts. For students in Grade 9 and above, 28 per cent accessed videos or recorded classes and 16 per cent accessed live online classes. For students in Grades 1 and 2 the figures were 17 per cent and 7 per cent, respectively.

Internet and mobile connectivity in India



54 per cent of urban and 32 per cent of rural population of 12+ years had internet access



99 per cent of both urban and rural internet users aged 12+ years used mobile phones to access the internet



11 per cent of Indian households have computers such as desktops, laptops, and tablets (excluding smartphones)



24 per cent of households have internet facilities, including unlimited broadband connections

Source: Nielsen and IAMIA, 2019

- Recorded video lessons and online classes were more accessible for private school students, with 29 per cent reporting using video recordings and 18 per cent reporting using live online classes. For government school students the figures were 18 per cent and 8 per cent, respectively.

Other surveys and reports give a similar picture – e-education, the alternative form of delivery, exposed India's digital divide. The Remote Learning Reachability report (2020) by UNICEF stated that only 24 per cent of households have access to the internet across the country. The report concluded that:

"The learning gap is likely to widen across high, middle and low-income families, as children from economically disadvantaged families cannot access remote learning."⁴²

A report by Oxfam India⁴³ indicated that children studying in government schools were hit particularly hard, with more than 80 per cent of government school students in Odisha, Bihar, Jharkhand, Chhattisgarh and Uttar Pradesh not receiving any educational materials during the lockdown.⁴⁴ This was mostly because families did not have access to digital devices and e-learning tools. In homes that had digital access, WhatsApp was the primary mode (75 per cent) for delivering education in both public and private schools, followed by phone calls between teachers and students (38 per cent). But more than 75 per cent of parents had trouble with WhatsApp lessons because of the lack of an internet connection or the inability to afford it, and sometimes poor internet speed/signal.

A survey conducted by UNICEF in six states⁴⁵ concluded that most respondents feel that students are falling behind compared with where they should be, including in social skills, fitness, job prospects etc. Some 67 per cent of parents of students aged 5–13 and 71 per cent of students aged 14–18 state that overall progress is significantly behind or somewhat behind, compared with what it would be in school. Kerala is an exception: about 70 per cent of parents of both younger and adolescent students believe that overall learning progress is the same or better than it would be in school. Kerala has the greatest technology access, and it has also been among the most proactive states in supporting students: it is the only state where nearly everyone who used remote learning reports that the government has provided remote learning resources, and more than 90 per cent report that students are speaking with their teachers.⁴⁶

Vulnerable groups: In particular, the COVID-19 crisis has meant limited or no education, or falling further behind their peers for many who already experienced barriers in

accessing education – children with disabilities, students in remote locations, children of migrant workers, refugees and asylum seekers or those whose families have lost their source of livelihood and incomes. This could force many children to discontinue their studies even after 'normality' is restored.⁴⁷

Children with disabilities are one of the most vulnerable groups in India. For many, their almost total dependence on parents or other caregivers puts them also at the receiving end of any distress suffered by their guardians. The lockdown has also put them at an unfair disadvantage in the arena of mainstream education. According to a survey conducted by National Centre for Promotion of Employment for Disabled People, many children with disabilities do not have access to the online services that have replaced traditional learning during this lockdown. Many of them come from families with low socio-economic profiles. Parents are also unable to help as many of these children are first-generation learners.⁴⁸

In government primary schools, enrolment for girls is higher than for boys, however this trend reverses in senior grades. Given the strong son preference, whereas boys may be supported by families to go to school despite the economic crisis at home, older girls are more likely to be discouraged from going back to school so that they can help with domestic chores or take care of sick or infirm family members.⁴⁹ Such girls might also be forced into early marriages.

For children, school is more than just about attending classes. With the lockdown, children miss out on the joy of play and interactions, sports and talking with friends. These extracurricular activities are equally formative to a child's growth and are not being catered for through distance learning. The school also provides some essential basic services such as the midday meals, immunization and health checks that are difficult to substitute. Time will reveal the non-academic impacts a year-long closure of schools will have on the growth and development of a generation of students.

Migrant children: Data from the National Sample Survey Organization⁵⁰ suggested that economic factors are critical to children dropping out of school. The pandemic and lockdown have affected an estimated 40 million migrant workers and others working in the informal sector (90 per cent of India's population is engaged in this sector).⁵¹ The migrant workers have either moved back home with their children or are unable to send remittances home this season. The move towards technology-driven distance-learning is preventing many migrant children from continuing their education during school closure. A survey across 18 states reveals 46 per cent of migrant

children have discontinued their education due to COVID-19, but this is an incomplete picture – at national level there is a big data gap on child migrants and their needs which hampers better planning. In March 2020, the governments of 27 states launched migrant portals to track the movement of migrants.⁵² There is an opportunity to leverage these portals to map the movement and number of migrant children and drive evidence-based contextualized policy. The government schooling systems need to be better prepared to accommodate migrant children and ensure continuation of their learning.

Safe operations

WASH: The Right to Education Act 2009 mandates “barrier free access, separate toilets for boys and girls, and safe and adequate drinking water facility for all children.” According to the Annual Status of Education Report (ASER),⁵³ the provision of these facilities has greatly improved in government schools across the country from 2010 to 2018. However, there are still many schools that lack usable facilities. Given the nature of the current health pandemic, all schools will have to ensure that they have running water for drinking and handwashing, and usable toilets for boys and girls, once schools reopen. This will be a challenge in many remote rural areas where the infrastructure is poor and will be expensive to develop.

In the short term, it will be important for the government to take a pragmatic approach to providing basic WASH facilities in schools to make them safe for reopening. In the medium term, this inequity must be addressed as a priority.

Gender-based violence and violence against children:

Crises tend to increase the risk of gender-based violence for women, and violence against children and sexual minorities. Physical distancing, restrictions on mobility, fear of getting infected and confinement at home, coupled with increased tensions and economic stress could increase the risk of gender-based violence, especially in contexts where the risk is already pronounced. Physical distancing measures and the desertion of public spaces also increase the risk of violence in public spaces. Another arena where the risk of violence against women, girls and others in vulnerable situations may increase are online platforms. The National Commission for Women recorded a more than two-fold surge in complaints of violence against women and girls in the week following the lockdown.⁵⁴ Helplines operated by NGOs have reported a drop in the number of calls received, which may be partly due to the difficulties faced by women in reaching out for support due to confinement and restrictions on mobility.⁵⁵ Of the calls received by the Childline India Helpline, nearly 30 per cent requested protection against abuse and violence toward children.⁵⁶

TABLE 1 | TRENDS OVER TIME – PERCENTAGES OF SCHOOLS WITH SELECTED FACILITIES

		2010	2012	2014	2016	2018
Drinking water	No provision	17.0	16.7	13.9	14.8	13.9
	Provision exists but unusable	10.3	10.3	10.5	11.2	11.3
	Provision exists and usable	72.7	73.0	75.6	74.1	74.8
Toilet	No provision	11.0	8.5	6.3	3.5	3.0
	Provision exists but unusable	41.8	35.2	28.5	27.8	22.8
	Provision exists and usable	47.2	56.4	65.2	68.7	74.2
Girls' toilet	No provision	31.2	21.4	18.8	12.5	11.5
	Provision exists but locked	18.7	14.2	12.9	11.5	10.5
	Provision exists but unusable	17.2	16.4	12.6	14.1	11.7
	Provision exists and usable	32.9	48.1	55.7	61.9	66.4

Source: Annual Status of Education Report 2019

Health, well-being and protection

Health: The closure of schools has disrupted the midday meal scheme.⁵⁷ India has 120 million children enrolled in this scheme in over 1.26 million schools across the nation.⁵⁸ But due to the lockdown and disruptions associated with the COVID-19 outbreak, many states and union territories have had to stop this initiative, thereby depriving children of what, for some, may be the only nutritious meal of their day. This meal serves as a huge incentive for children from many homes to attend school.

Schools also regularly offer provisions such as sanitary products. These are essential services for adolescent girls, especially given the extreme barriers they face for maintaining basic menstrual hygiene.⁵⁹ Menstruation taboos, particularly in rural India, bring with them increased censorship and restrictions on girls' mobility, concerns of sexual violence, early marriage and serious health risks. This provision has also ceased, adding to the challenges faced by adolescent girls due to school closures.

Social protection: The government is to be commended for scaling up social assistance under the Pradhan Mantri Garib Kalyan Yojana, providing a package of cash and in-kind social assistance to protect poor and vulnerable households. While India's social protection programmes span major life stages, there are notable limitations in reach and impact due to design and implementation challenges. For instance, even before the start of the pandemic, only 39 per cent of eligible women with newborns received a maternity benefit under the Pradhan Mantri Matru Vandana Yojana. Furthermore, the majority of the workforce in India is informal and without social protection.⁶⁰

An analysis of the Pradhan Mantri Shram Yogi Maan-Dhan scheme shows that as of March 2020, only 4.3 million workers⁶¹ had enrolled – a meagre one per cent of the total informal workforce in the country. Most of these schemes are targeted at the rural poor. Often left out are the urban poor and informal-sector workers located in the urban areas. The COVID-19 pandemic underlined the structural challenges in India's social protection system, which is fragmented and largely implemented through complex centrally sponsored schemes. Investing in integrated social protection across the lifecycle will support multidimensional vulnerabilities (both social and economic)

and assist people to cope with shocks and other risks.⁶² The World Bank has announced a \$1 billion programme – Accelerating India's COVID-19 Social Protection Response – that will focus on making social benefits (such as subsidized food under the National Food Security Act, cash transfers and pensions etc.) portable so that beneficiaries may access them from anywhere in the country.⁶³ This is an important solution to some of the challenges stemming from the lockdown.

Finances

The pandemic has had a drastic effect on India's economy. The macroeconomic impacts of COVID-19 include:

Economic contraction: Due to the combined effects of the demand shock and supply disruptions following the lockdown, the growth rate projections for the Indian economy for 2020–21 have been repeatedly lowered from 1.9 per cent (in April 2020)⁶⁴ to 1.2 per cent (in May 2020).⁶⁵ In October 2020, the IMF projected a 10.3 per cent contraction for the Indian economy in 2020.⁶⁶ For the first time in 40 years India has had a negative growth rate.⁶⁷

Rising unemployment: Unemployment has been growing since January 2020 when the first cases of coronavirus were detected. According to the Centre for Monitoring Indian Economy, India's unemployment rate peaked on 16 May 2020, staggeringly high at nearly 24 per cent (26 per cent in urban and 23 per cent in rural areas) but fell in November to just under 7 per cent.⁶⁸ Close to 122 million Indians had lost their jobs in April alone. Of these, 91.3 million were small traders and labourers. A significant number of salaried workers (17.8 million) and self-employed people (18.2 million) also lost work.⁶⁹

Agriculture: Employs more than half of India's workforce and has been badly hit by COVID-19. Farmers and agricultural workers have faced major disruptions due to the non-availability of migrant labour interrupting harvesting activities, and disruptions in supply chains due to border closures and quarantine, as well as disruptions in markets, supply chains and trade. With over 70 per cent of the female workforce employed in agriculture, women farmers are likely to bear the brunt of the loss of livelihoods and incomes.⁷⁰

2.3 Education sector response to COVID-19 and supported continuity of learning

Phase 1: Prior to reopening

Access to, and participation in learning

Over the past six months, India's education sector has witnessed a surge in solutions to support the continued learning of students during the COVID-19 lockdown. This includes core remote learning solutions (traditional tools such as textbooks and home visits, tech-enabled and mass communication solutions such as WhatsApp, YouTube, TV, and radio, and blended solutions that combine face-to-face with e-learning) and learning-enabling solutions (such as distribution of midday meals, distribution of sanitation kits and monetary support).

To support continuous learning while schools are closed, the Ministry of Education shared various free digital e-learning platforms in their press release (21 March 2020). The government has made a strong effort to create a repository of learning content and has implemented EdTech interventions in partnership with several NGOs such as EkStep, Khan Academy and Azim Premji Foundation. Access to the following resources is free:

DIKSHA: Digital Infrastructure for Knowledge Sharing (DIKSHA) is an open-source national platform for learners and teachers to enable educational autonomy. Learners can access more than 80,000 e-books (including school textbooks for all grades) in multiple languages – the content supports homework and exam preparation with the help of 'question banks'. Teachers can undergo

training on the platform, access tools to help them with their lesson plans and content explanation, as well as assessment of their students. The content can also be viewed through QR code on textbooks. This app can be downloaded from iOS and Google Play Store. Website: <https://diksha.gov.in> or <https://seshagun.gov.in/shagun>

e-PATHSHALA: In this portal, the National Council for Education Research and Training (NCERT) has deployed 1,886 audios, 2,000 videos, 696 e-books (e-Pubs) and 504 Flip Books for Grades 1–12 in different languages. A mobile app is available. Website: <http://epathshala.nic.in> or <http://epathshala.gov.in>

National Repository of Open Educational Resources

(NROER): This portal has a total of 14,527 files including 401 collections, 2,779 documents, 1,345 interactive, 1,664 audios, 2,586 images and 6,153 videos in different languages. Website: <http://nroer.gov.in/welcome>

SWAYAM: Is the national online education platform hosting 1,900 courses covering both school (Grades 9–12) and higher education (undergraduate and postgraduate programmes in all subjects including engineering, humanities and social sciences, law and management) courses. A unique feature of SWAYAM is that it is integrated with conventional education. Credit transfers are possible for SWAYAM courses (up to a maximum of 20 per cent). Website: swayam.gov.in

SWAYAM PRABHA: Has 32 D2H TV channels transmitting educational contents on 24/7 basis. These channels are available for viewing across the country using Doordarshan (the government-run national television channel) free dish, set-top box and antenna. The channel schedules and other details are available in the portal. The channels cover both school education (Grades 9–12), out-of-school children, higher education (undergraduate and postgraduate)



vocational courses and teacher training in arts, science, commerce, performing arts, social sciences and humanities subjects, engineering, technology, law, medicine and agriculture. Website: <https://swayamprabha.gov.in>

The education sector response to provide continuing access to learning during school closure varies by state. Each state government is responsible for delivering a solution appropriate for that context. For example, Gujarat has focussed on distributing QR coded textbooks; Bihar and Uttar Pradesh have focussed on learning programmes on TV to expand access; Assam has been distributing worksheets along with midday meals to ensure continuity of learning; Kerala has also focussed on textbook distribution and WhatsApp groups;⁷¹ Odisha has turned to radio as online classes failed to reach all students due to poor mobile connectivity.⁷²

According to the UNICEF survey,⁷³ the most-used channel for remote learning (by children aged 5–13 and adolescents aged 14–18) is WhatsApp: among students who have used at least one remote learning opportunity, WhatsApp is used by 47 per cent of students aged 5–13 and 55 per cent of those aged 14–18. The next-most used channels are textbooks (46 per cent and 42 per cent, respectively) and home visits by teachers (33 per cent and 31 per cent, respectively). Radio is used the least (1 per cent of students from both age groups) – most students do not typically listen to radio, and radio learning content is often neither interactive nor tailored to meet students' needs. However, the government intends to reach the marginalized and remote student population (especially in the early grades) by expanding the use of radio and setting up 289 community channels.⁷⁴

Since the national lockdown and school closure in March, teachers have played a critical role as frontline workers in the fight against the virus. As well as having to quickly switch gears to distance learning and improving their digital skills with little training, teachers have been required by local government to take on other responsibilities too. In Delhi, some government schoolteachers were required to work at quarantine centres in addition to their daily online teaching responsibilities.⁷⁵ During the online consultation with teachers and union representatives, it was shared that many teachers in Delhi were also required to distribute rations from their school to people in neighbouring communities. A female teacher described the risks of being alone in the school and having to deal with a large mob of desperate people waiting to get their government-provided rations at night. Some teachers confessed to having

tested positive for COVID-19 and not being able to get any treatment in government hospitals for their symptoms. To compound these challenges, in states including Gujarat,⁷⁶ Karnataka, Delhi and Meghalaya, salaries of both government and private school teachers were not paid for months. Teachers from Meghalaya organized a campaign to write to the Prime Minister protesting against the five-month delay by the central government in paying teachers' salaries.⁷⁷ These experiences and complaints were corroborated by teachers during online consultations.

Issues such as the challenges of accessing digital tools by students and teachers, and the unmonitored quality of distance learning, coupled with the major socio-economic impact of the pandemic, suggest a need to evaluate the impact of COVID-19 and the COVID-19 response on the learning outcomes of students from an equity perspective.

Community participation

According to the ASER 2020 survey, close to three-quarters of all schoolchildren received school-related help from family members. This was more pronounced for younger children, with 82 per cent of children in Grades 1 and 2 receiving help from family members as compared to 68 per cent of children in Grade 9 and above. As expected, parents with higher education levels were better equipped to help their children than parents with lower educational attainments.

Not surprisingly, mothers had a higher involvement than fathers with younger children. However, more children in Grades 5–8 received help from fathers (27 per cent) as compared to mothers (22 per cent). The involvement of fathers in the education of their children in rural areas is positive and must be promoted further. In Grades 9 and above, most children did not receive any help at home, but there was an increase in the amount of support provided by older siblings in this age group.

Health and well-being

Accessing online materials can bring significant risks. The publication illustrated here⁷⁸ by NCERT and UNESCO is an example of jointly developed communication material targeted at students, teachers and parents to spread awareness of safe online learning and to combat cyberbullying. In India, cyberbullying has been classified as an offence punishable under the Indian Penal Code and Information Technology Act of 2000.⁷⁹ However, it is debatable how easy it is to report or investigate an instance of cyberbullying. As millions of children turn to online

education there is an increased risk of online abuse, which can have a severe impact on a student's mental health, overall well-being and academic achievement.

To meet the nutritional requirements of children and safeguard their immunity during the COVID-19 outbreak, states / union territories were advised by central government to provide a hot cooked midday meal or a Food Security Allowance to eligible children during school closures and summer vacations.⁸⁰ In the South Indian states of Kerala, Tamil Nadu, Andhra Pradesh, Karnataka and Telangana, the state governments have provided dry rations such as rice and eggs to students' homes since the beginning of school shutdown through anganwadi workers⁸¹ (community-based frontline workers for pre-school children). While this is commendable, the Tamil Nadu Child Rights Watch organization notes that there have been issues with the implementation of this support package, with either the rations not reaching all the children or it not providing the intended support to low-income households.⁸²

In Jammu and Kashmir, UNICEF in collaboration with the Directorate of Samagra Shiksha launched the training of 2,000 heads of institutions and principals to provide psychosocial support for the mental health and well-being of students, teachers and families during COVID-19 and beyond.⁸³ In collaboration with Childline (a part of the Ministry of Women and Child Development), UNICEF also developed a manual⁸⁴ for all frontline workers and NGOs to psycho-educate parents, caregivers and children on the mental and well-being challenges related to COVID-19 and how to address them.

Even outside the education sector and in civil society, there has been substantial focus on the well-being and protection of children during the lockdown. Focussing on child protection issues, Nobel Peace Laureate Kailash Satyarthi launched a national campaign through his foundation to protect children from any kind of abuse during lockdown.⁸⁵ At state level, addressing concerns of increasing child-trafficking and child marriage, the High Court of West Bengal issued a statement in relation to a court case that the leaders of panchayats⁸⁶ must play an active role in protecting children in their communities and "should be sensitized about child rights and the evils of child marriage."⁸⁷

Finances

Despite being one of the largest and fastest growing economies in the world, India's public spending on its education sector has actually decreased from 14.1 per cent in 2013⁸⁸ to 10.6 per cent in 2018.⁸⁹ However, recognizing the importance of education for economic growth, the 2020 union budget increased the allocation for the education sector by 5 per cent in real terms to Rs 99,311.52 crore in 2021 financial year.⁹⁰ "By 2030, India is set to have the largest working-age population in the world. Not only do they need literacy, but they need both job and life skills," said Finance Minister Nirmala Sitharaman in her Budget speech.⁹¹

Education system

Approved by the Union Cabinet in July 2020, the National Education Policy (NEP) 2020 unveiled by the Ministry of Education has been the focus of much attention, discussion and debate – the previous NEP dated from 1986. NEP 2020 is ambitious and envisions a complete overhaul of the education sector. The proposal to allocate 6 per cent of India's GDP to the sector shows the government's commitment to making the vision a reality.

National Education Policy of 2020 is looking to bring a paradigm shift in how India, as a society, perceive education and how it is imparted in schools across the country. In fact, it makes Indian people re-examine the very purpose of going to school.⁹²

The NEP includes some significant changes:⁹³

- In terms of school structure, the policy will replace the existing 10+2 format with a 5+3+3+4 format based on the cognitive development stages of the child. The five years of Foundation Stage (pre-nursery to Grades 2) will be followed by three years of Preparatory Stage (Grades 3–5), another three years of Middle Stage (Grades 6–8) and four years of Secondary Stage (Grades 9–12).
- The National Curriculum Framework is currently being redesigned by NCERT in line with the new policy with the aim of implementing it in the 2022–23 academic session. The new syllabus will emphasize key concepts and ideas which will not only reduce academic stress but will also free teachers to focus on conceptual understanding and higher-order thinking skills, thus making the shift from content to competencies.⁹⁴
- The main thrust of the curriculum in the early years will be to develop foundational literary and numeracy skills. Secondary-level students will have the flexibility to choose subjects across different streams according to their interest and inclination – traditional streams of science, humanities and commerce will be a thing of the past.

- Two areas that have received special attention are vocational studies, and digital learning and computational thinking.
- In order to bring about a purposeful, competency-based education, the NEP seeks to de-emphasize exams. Instead it recommends ongoing formative assessments for measuring holistic learning outcomes.⁹⁵
- Relying heavily on teachers to implement the new vision inside the classroom, the NEP outlines a detailed plan for the professional development of teachers. Stand-alone teacher education institutions will be converted into multi-disciplinary institutions offering four-year integrated teacher preparation programme by 2030.⁹⁶
- The NEP also includes instruction in the mother tongue, further proving its strong focus on equity in education across India.

Given the enormity of India's school system and its regional, linguistic and cultural diversity, achieving universal quality education is a challenge. Under the federal structure, the government's greatest challenge is to ensure robust systems for managing the large public-school system – without strong data collection, monitoring and accountability systems, the intended impact of the NEP will be difficult to achieve.⁹⁷ It is yet to be seen how the ambitions of the NEP can be reconciled with the reality of the post-COVID-19 education sector.

Phase 2: Part of the reopening process

Access to and participation in learning

In India the response plan for education continuity and reopening of schools is being managed at state level.⁹⁸ Given the variation in the spread and response to COVID-19 across India, many states have devolved the responsibility for reopening down to the district level. Decisions regarding when to reopen, and for which grades, rest with the local authorities based on the local context.

The Ministry of Home Affairs Order dated 30 September 2020⁹⁹ directed that states could begin to reopen schools from 15 October in a phased approach, except in containment zones. It also states that:

- Online or distance learning will remain the preferred mode of teaching and learning whilst the pandemic is still prevalent
- Attendance must not be enforced and must depend entirely on written parental consent
- It is the school's responsibility to ensure that children who choose not to go back to school are either attending classes online or that teachers are following up on mobile phones in the absence of ICT facilities either at the school or the student's home.

The Ministry of Education¹⁰⁰ has shared advisory standard operating procedures (SOPs) or guidelines for reopening of schools with states / union territories and has directed states to develop their own SOPs for reopening schools. In many states, UNICEF is supporting the development of these SOPs.¹⁰¹ The NCERT has created an alternative academic calendar which states are adapting to their situation. Most states plan to reopen schools in a phased approach starting with the higher grades. However, this might be problematic as children in the lower grades are less able to engage with remote learning materials.

So far, only a few states have set start dates. For instance, Delhi has decided against bringing back students until further notice (as of 10 January 2021),¹⁰² despite the union government's go-ahead. Uttar Pradesh, on the other hand, has announced a phased reopening, but has left the final decision to the districts, based on the local situation.¹⁰³ While decision-making based on the local context is important, this means that students will have different experiences of returning to school depending on where they live, which will further widen the learning outcomes divide within and between states. Evidence from past prolonged school closures shows that such disruptions can set generations of children back for life. For instance, the 2005 earthquake in Pakistan led to an on average 14 weeks of school closures, putting affected children 1.5–2 years behind their peers in other areas.¹⁰⁴ Losses during closures are likely to snowball after children return to school if they start falling behind because lessons and curriculum do not take into account the learning losses during school closure.

It is therefore crucial that quick, large-scale, standardized efforts are made to recognize and address the learning gaps across the country. This is especially the case for early grades where solid foundational skills are essential for any learning progress. Basic literacy levels, language and mathematics need to be assessed. Adaptive remedial strategies can then be put in place to help children catch up. For instance, the NGO Pratham has an initiative, Teaching at the Right Level that uses 'learning camps' and accompanied assessments – such ideas could be adopted widely to help reduce learning inequalities amongst younger children.¹⁰⁵



Safe operations

The Ministry of Education guidelines for re-opening schools¹⁰⁶ advise that health and safety protocols for reopening be adapted in accordance with the local context in all states. Given that many schools were used as quarantine centres, the institutions must be thoroughly sanitized, cleaned and disinfected. Schools have also been advised to have health and safety supplies such as thermometers, disinfectants, soaps and working hand-washing facilities.

At the time of conducting the online stakeholder consultations in early October, none of the teachers interviewed knew when schools would open in their state/ district, nor did they indicate being part of any reopening process. They did share their concerns about limited WASH facilities, especially in rural government schools, being one of the main hurdles to overcome with regards to safe school reopening.

Through UNICEF support, the disinfection and construction of WASH facilities was conducted in over 10,000 schools and 50 anganwadi¹⁰⁷ centres in Bihar, Gujarat and Uttar Pradesh. Advocacy for leveraging funding and WASH school readiness protocols were also developed in Jharkhand, Madhya Pradesh and Chhattisgarh.¹⁰⁸ More support like this will be required by almost all states to fill the gap in WASH facilities, infrastructure, training and awareness.

Health and well-being

The Ministry of Education guidelines for reopening schools advise how to resume the cooking and serving of midday meals in schools with a focus on food safety, health and hygiene along with physical distancing. These guidelines seem quite comprehensive and were developed in collaboration with the Ministry of Health, Ministry of Home Affairs and UNICEF.

According to the guidelines, schools should not conduct formal assessments for at least two to three weeks after reopening. Even when they do, the pen-and-paper format will be discouraged for students across all grades to “ensure emotional well-being of the students... Assessments in the form of role plays, choreography, class quiz, puzzles and games, brochure designing, presentations, journals, portfolios, etc., may be preferred over routine pen-paper testing.”¹⁰⁹

Phase 3: With schools reopened

Access to and participation in learning

Some states have reopened schools (as of November 2020).

TABLE 2 | EXAMPLES OF PHASED SCHOOL REOPENING¹¹⁰

STATE	PHASED TIMELINE FOR REOPENING
Andhra Pradesh	Grades 9 and 10 – 2 November 2020 Grades 6 and 8 – 23 November 2020 Grades 1 and 5 – 14 December 2020
Uttar Pradesh	Phased reopening of schools decided by districts as of 7 December 2020
Assam	Grades 6 and above – 2 November 2020 Grades 6, 7, 9 and 12 will have classroom teachings on Monday, Wednesday and Friday, while Grades 8, 10, 11 will come to school on Tuesdays, Thursday and Saturday
Goa	Grades 10 and 12 are open
Uttarakhand	Grades 10 and 12 are open

Andhra Pradesh State Highlight¹¹¹

Andhra Pradesh reopened schools for Grades 9 and 10 on 2 November. The reopening process was not completely smooth or successful in the early stages. Within a week of reopening, 829 teachers and at least 575 students have tested positive, all from government high schools. These numbers are from a total of 70,790 teachers and 95,763 children who underwent tests before 5 November. The state administration, however, insists that the COVID-19 numbers are not worrying, and said their focus is to ensure that more students from interior areas attend school.

According to statistics provided by the Department of Education, initial rates of attendance were:

On the first day of schools reopening (2 November)

- 39 per cent of Grade 9 students attended school
- 43 per cent of Grade 10 students attended school

One week after school reopening (9 November)

- 39 per cent of Grade 9 students attended school
- 50 per cent of Grade 10 students attended school

Teachers and head teachers from various states share many concerns regarding the state of the education sector after an almost seven-month shut down of schools. According to the Young Lives Report,¹¹² teachers expected the effects of school closures on learning to be long-lasting. Teachers also identified already disadvantaged groups – weaker learners and students from the poorest households – as being most at risk. Head teachers in private schools were particularly concerned about students dropping out, reflecting the fact that enrolment will be affected by the economic effects of the pandemic as well as the school closures themselves. Unfortunately, it seems that in many cases concern about the impacts on disadvantaged learners was not matched with targeted support for these groups. Instead, efforts were focussed on students approaching important exams.

Safe operations

From the documents reviewed, it is unclear what the state-specific response has been with regards to ensuring safe operations once schools have reopened. While some states like Odisha, Tamil Nadu, Haryana and Uttar Pradesh have developed their own guidelines for safe school reopening based on the guidelines developed by central government, others have not.¹¹³

At the time of writing, no data was available on how effective these guidelines have been in preventing the spread of the virus, nor was there any analysis of how schools were coping with implementing them. According to the justices of the High Court of Allahabad, Uttar Pradesh, “It is a matter of concern whether the teachers and students would follow the COVID-19 guidelines.”¹¹⁴ They have instructed UP-district administrations to inspect all the private and government schools regularly to see that guidelines are being followed. This judgement was in response to a public interest lawsuit seeking the court’s intervention to check the spread of the infection in Uttar Pradesh.

Education system

At the time of writing, no survey or evaluation on the learning outcomes of children was available. However, while governments in other countries such as Sri Lanka are rightly reluctant to conduct learning assessments as soon as children return, there is also an urgency to establish a baseline for children’s learning levels in order to strategize how best to support these children and counter any learning loss. It will be particularly important to assess individual learning levels as a key component of remediation work so that children can rebuild their foundation skills before continuing with the curriculum.



03

Thematic deep dive



The rapid shift to e-learning, prompted by the pandemic, has exposed long-standing issues of inequality and a digital divide in India that must be addressed by future economic, education and digitalization policies.

The theme of the deep dive is a brief exploration of how government schoolteachers are coping with online and distance learning while schools are closed due to COVID-19. It focusses on the challenges teachers faced with regards to the digital divide in accessing and delivering e-learning.

3.1 Ambitions of the education sector

The rapid shift to e-learning, prompted by the pandemic, has exposed long-standing issues of inequality and a digital divide in India that must be addressed by future economic, education and digitalization policies. While the government endorses India as the flag-bearer of the digital revolution and acknowledges that it is a diverse and multilingual country (as supported by the new NEP), e-learning platforms cannot replicate the various dialects, varied contexts and different lived experiences that are brought together by physical classrooms. If e-learning is to be the 'new normal', the NEP and related policies must go further to address the feasibility of digitalization to ensure equity and quality in education.¹¹⁵

As mentioned in section 2.2 the potential scope of e-learning is enormous and can help realize the potential of each student, but e-learning offers both opportunities and challenges for the government and the private sector. The aim should be to ensure equal and adequate access to such platforms as the country continues to globalize and catch up with advanced economies. If the Indian education system aims to transit to blended education with more online learning in future, it must emphasize policies that bridge the digital divide and move the country closer to achieving the Sustainable Development Goals. In reality, the majority of government schoolteachers and students currently lack the tools and infrastructure to be

a part of this digitalization process – unless these core shortcomings are addressed, educational inequalities will continue to widen.

These sentiments are echoed by other key actors in the education sector, such as the CEO of Azim Premji Foundation. In an interview with the BBC, he said,

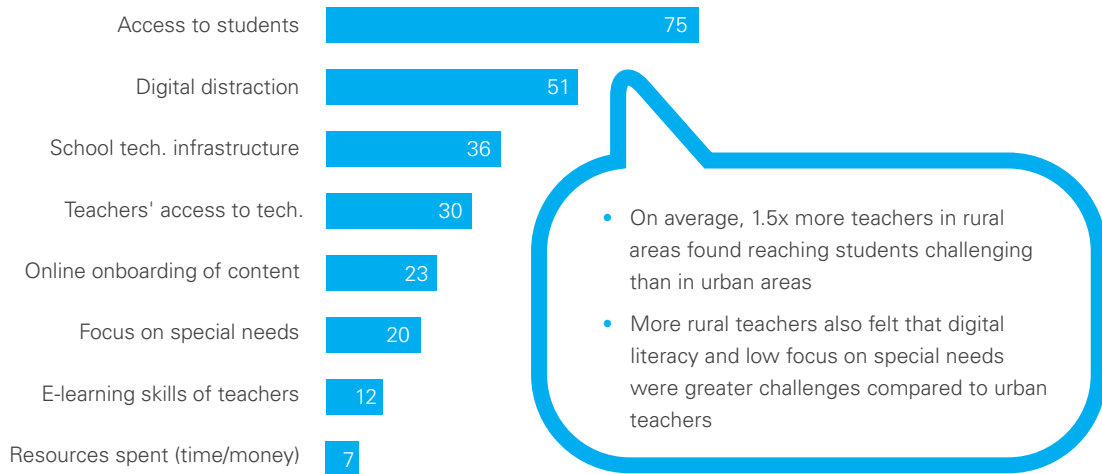
“The education of children cannot be done effectively online and to do so would damage education deeply and exacerbate inequities. Most disadvantaged children,” he added, did not have “any support to handle online education at home and are in families combating deep livelihood crises, making them unable to cope with other challenges.”¹¹⁶

One critical factor as countries move towards using more technology to complement classroom-based learning (or as an alternative to face-to-face teaching) is the capacity of the teachers. The digital divide for teachers must be reduced, and they must be prepared, consulted and situated within an enabling ecosystem to lead this process.

3.2 Challenges faced by teachers

Education during the current pandemic has been a massive change for everyone involved. Students, teachers and parents are still getting used to the switch from learning in classrooms to learning from home. For the teachers, the move from interacting with a classroom of around 40 students to trying to teach from their homes via mobile phones or laptops has been a learning experience fraught with challenges. From coping with the basics of internet connectivity and India's notoriously unreliable power supply to more structural issues such as curriculum and teaching methods, educators have come under tremendous stress since India's schools began shutting down in mid-March.

FIGURE 4 | CHALLENGES OF REMOTE TEACHING AS SEEN BY TEACHERS



According to a UNICEF study,¹¹⁷ teachers face several challenges with remote teaching, and many see limited benefits to teaching remotely over teaching in school. As seen in the chart below, teachers' top challenges faced while teaching from home are inability to reach students (75 per cent) and lack of class discipline online (51 per cent). Some consider lack of e-skills (12 per cent) and additional expenditure (7 per cent) as barriers to effective remote teaching.

The study also found that 8 per cent of teachers do not have a personal smartphone or laptop and concluded that while many teachers acknowledged some benefits to teaching remotely, 33 per cent saw no benefits at all.

A 2017–18 survey, found that only 47 per cent of Indian households receive more than 12 hours of electricity per day and that more than 36 per cent of schools operate without electricity.¹¹⁸ The ambition of connecting every school to the internet and reaching every child with world class digital solutions (as proposed by global initiatives such as GIGA Connect¹¹⁹ and Reimagine Education),¹²⁰ would require about half of Indian households and more than a third of all Indian government schools to be connected to the electricity grid. Providing fair chances to an online education for all is thus still a distant dream – increasing access to online education on a massive scale will require significant and fast-paced investments in infrastructure, starting with electricity supply.

This suggests that while students from families with higher living standards can easily bridge the transition to remote learning, students from underprivileged backgrounds are likely to succumb to inefficiency and a lack of adaptation, either because they cannot access the technology or because their poorly educated parents are unable to guide them through tech-savvy applications.

These challenges were also shared by the teachers and teacher union representatives interviewed for this case study. The following account is based on their testimonials.

Low capacity in digital and e-learning skills

There is a visible divide between teachers who had digital tools (such as mobile phones and laptops) at home and had used ICT in schools (such as in the 'smart schools' in certain states) and those who had not. Teachers from the few government-funded 'smart schools' (mostly in urban areas) had already been trained how to adopt technology into their lesson plans and had been using tools such as interactive boards, tablets and apps in their classrooms. These teachers were quick to transition, teaching online classes, using supplementary materials provided through government digital platforms such as DIKSHA, and developing lesson plans to maximize continuity of learning for their students. However, many other government

school teachers did not have the same exposure prior to schools shutting down. Since the national lockdown happened quickly, teachers were not sufficiently prepared to change their entire mode of teaching. Without sufficient access to digital tools (such as laptops and internet access) for teachers and their students, the primary focus of most teachers was to get learning materials out to as many students on a regular basis as possible. WhatsApp was the most widely used platform for interacting with students, parents, school management and other teachers. Teachers created WhatsApp groups with hundreds of students to send out reading materials, worksheets and circulars. But without regular follow-up and assessments, it was difficult for teachers to gauge the engagement of students and the extent to which they were learning. This invariably leads to inequalities between the lessons delivered by teachers with and without access to proper digital tools, and hence the learning outcomes of their students.

Poor systemic support

A teacher requires institutional support for successful online teaching and assessment. This support should include proper training, institution-supported technologies, technical support and clear directions for successful online teaching and assessments. Teachers interviewed said that systemic support has been weak. While experiences differ from state to state and even between schools in the same state, teacher union representatives felt a sense of abandonment.

In the state of Uttar Pradesh, the government produced guidelines on how to share worksheets via WhatsApp and to follow up with home visits. The state government also put educational classes on TV – the schedules were sent by teachers to the students and parents via WhatsApp. The teachers said that these guidelines put the onus of learning continuity entirely on the teachers, who had to use their own personal devices and pay for internet data packages without support from the government. In fact, the state government established a toll-free number to call teachers on a regular basis to check if they were teaching. Teachers had to respond yes or no by pressing a specific number on their mobile phones. Afraid of the unknown consequences, most teachers responded by saying ‘yes’, portraying an unreal picture of actual teaching practices. Some teachers took the initiative of exploring the government online repository, e-Pathshala, for relevant learning materials but felt overwhelmed by the amount of information on offer and could not easily find what they needed. Teachers in Himachal Pradesh, Gujarat, Bihar and Delhi echoed these experiences.

In Maharashtra, the government published circulars for ‘tech-savvy teachers’ as a key prerequisite for the ‘digital preparedness’ of schools, indicating that the state government must invest in training educators for digital schools. However, the government does not identify any explicit method to qualify or certify teachers as ‘tech-savvy’, and instead implicitly suggests self-certification as the ideal route. The teachers interviewed said that the state government has not been clear on what is expected



from them in 'tech-savviness'. This was also reflected in government-run training, which lacked a clear and systemic capacity-building framework. Several respondents provided examples of self-motivated teachers who have built their digital skillsets without any training from the state.

Within the broader ecosystem, the digitalization of the education system is hampered by the poor electricity, phone and internet infrastructure. Even the teachers from 'smart schools' claimed that their instruction was interrupted by frequent power cuts or poor wifi connection, forcing them to use mobile data packages. An effective teacher requires a supportive and functional support system.

Reaching all students

As has been detailed throughout this case study, provision of digital tools and reliable infrastructure has been the greatest challenge for students to continue their learning across the country. This also made the job of teachers even more complex: they had to personalize the learning plans for their students depending on their situation – some could attend online classes, others only used apps on their mobiles, some did not have smart phones and used TV/radio or printed materials. A few children had no contact with their teachers at all. Many reasons were mentioned for children not being reachable by the teachers – children migrating with their parents; pausing schooling to undertake income-supporting activities; taking on additional home-care responsibilities for girls; preference for supporting the education of older children (especially boys); poor households with no digital tools. According to a schoolteacher in Bihar, her school did conduct online classes via Google Meet, but only 40–50

per cent of the children in her school had access to laptops and the internet. Technology was useful to continue learning but only to a limited extent. To reach as many students as possible and cater for their varying levels of accessibility, teachers had to work twice as hard. Whereas pre-COVID-19, teachers' working hours were generally restricted to the time they spent in school, once schools were closed they worked much longer hours and often chose to be available at any time for their students. A teacher from Delhi said that she felt burnt out with the increased workload and the amount of stress brought on by having to work longer hours providing one-on-one feedback to students, additional COVID-19 duties appointed by the government, increased home chores and little or no pay.

Preference for in-person teaching

There was a consensus among the teachers and union representatives interviewed that interaction with children cannot be replaced by voluminous content, no matter how audio-visually striking it may be. Even in online education, such content will only have a supplementary role to play. They strongly believed that this awareness appears to be missing in the government's approach to both content curation and teacher training. In fact, there were sincere fears that the government's strong push towards digital learning has the ulterior motive of reducing the number of teachers in the education system to save costs. This perception also makes teachers reluctant to adopt the new digital initiatives by the government. These concerns must be directly and clearly addressed by the government if the NEP 2020 vision is to be realized.



04

Lessons learned and recommendations



Teachers are the cornerstones of the education system. They are crucial to the overall development of children and must be provided with all the necessary tools to perform their duties successfully.

4.1 Lessons learned

The following lessons learned which feed into the recommendations in the next section, focus on the challenges faced by Indian teachers and have been identified through reflection on the available literature and interviews with key stakeholders.

Strategic planning: While pandemics and other external shocks can take countries and their people by surprise, governments should be better prepared. Countries across the world have had to take drastic measures to curb the spread of the COVID-19 virus, often leaving people unprepared for the consequences. The Indian government announced a national lockdown and subsequent school closures without any warning or preparation for how to deal with the aftermath. Schools and teachers were completely unprepared for how to make an overnight switch from classroom-based to distance learning, and they did not know how long the closures would continue. Forward planning and time for preparation, including teacher training, school hygiene and building student familiarity with ICT could have made it easier for the education sector to adapt to school closures. Learning from this experience is essential to help face similar emergencies in future and plan for a strategic response.

Acknowledging and addressing the digital divide: Device and data affordability, along with network connectivity infrastructure, are the largest challenges to continued learning during school closures. This is most critical for vulnerable groups and hard-to-reach children and teachers, who fall through the gaps and have had no access to learning opportunities while schools have

been closed. Not only should this reality be considered during response planning, but it must also be actively addressed by the government through expansion of the digital network in India to reach all children and citizens. The quality of the internet infrastructure is as important as connectivity itself – it is not sufficient just to have the most basic internet connectivity through mobile networks. Low bandwidth does not support downloading and using many e-learning apps, nor streaming videos and video calls. And an important prerequisite is the establishment of stable, widespread power infrastructure which provides reliable, cheap and uninterrupted electricity to support the use of technology. Ambition and reality must be bridged so that equity is ensured, and all children are able to have the same access to e-learning.

Teacher support: Teachers are the cornerstones of the education system. They are crucial to the overall development of children and must be provided with all the necessary tools to perform their duties successfully. Indian teachers have struggled considerably through this pandemic from having to work much harder to adapt to distance learning with limited training and tools, and taking on considerable non-teaching responsibilities, often without being paid. Despite this lack of structured support, many teachers demonstrated their ability to quickly adopt technology-based teaching solutions, develop innovative ways to reach their children – overall they demonstrated commitment and passion to their profession. Given the ambition to move towards a more blended learning education system there is a need to consider the changing role of teachers, as well as what professional development and support they need.



EdTech roll out: There is an opportunity to improve learning outcomes for the longer term through blended learning approaches, leveraging some of e-learning's advantages compared to classroom-based learning that many experienced during the school closures. Some students, parents and teachers are now more comfortable using remote learning tools, something that could have taken much longer to achieve without the pandemic. Schools and educators can continue to use technology to provide additional support to students who may require more guidance with particular concepts, provide targeted feedback based on online assessments and facilitate two-way communication with educators beyond the school walls (e.g. keeping in better touch over the holidays where learning levels often recede).

The government's strong effort to create a repository of learning content and implement EdTech interventions and platforms like DIKSHA are very impressive. However, there are still hurdles to overcome. Apart from issues around access, navigation and quality, there also seems to be growing scepticism of the purpose and effectiveness of e-learning. Buy-in from teachers, administrators and parents is crucial for the successful roll-out and adoption of EdTech initiatives. There also needs to be a recognition of the irreplaceable value addition of in-person interaction between students and teachers in schools. The holistic development of children in schools through interaction with their peers of different cultural and religious backgrounds, group work, play and a strong sense of community leads to social cohesion, tolerance and peacebuilding. The development of

these soft skills through long-term inter-personal relations and the celebration of India's diversity cannot be duplicated online or through technology. These need to be addressed by central and state government through a consultative process with teachers and parents.

4.2 Recommendations

The recommendations look to the future in terms of building back better.

Recommendation 1: Reduce the digital divide

Central and state governments can explore several avenues to reduce the digital divide, especially for teachers and students, by increasing their access to fast internet and technological devices. Options include:

- Partnering with mobile network operators to provide free or subsidized data for educational purposes to teachers and low-income and vulnerable families.
- Adding digital services to social protection schemes such as with rations/direct-benefit transfers to families.
- Setting up hotspot facilities in areas with poor connectivity.
- Deploying devices at community level (e.g. Smart TVs in Uttar Pradesh) as another tool to promote distance learning.

- Setting up digital hubs in communities to help students, parents and teachers to troubleshoot issues while using technology, and spread basic knowledge of digital skills especially in remote areas that are completely offline.
- Customizing existing learning applications to require less bandwidth (e.g. limited animation and compressed images). They could then be downloaded on low-cost smartphones and operate with 2G internet. Or ensuring that the application could be used to work offline with only periodic connectivity.
- As a prerequisite to the above, investment in electricity supply, even in the most remote communities, is a must.

Recommendation 2: Upskill teachers for e-learning

Investing in teachers and providing them with continuous support to be able to provide e-learning and distance education to all their students during school closure (and afterwards) through a blended form of instruction:

- Create a clear definition of 'tech-savviness' and build teachers' capacity in distance learning through technology. A teacher needs more than just access to digital classrooms to be able to deliver quality digital education.
- Ultimately all teachers should be tech-savvy if all children are to gain from the rapid expansion of tech-based education solutions.
- Continuous professional development training needs to include how to effectively use the vast number of online resources for classroom instruction.
- Critically assess the content of government and private apps such as MITRA, DIKSHA and EkStep Genie and how these correspond to or complement professional teacher training.
- More studies and ongoing monitoring are required to understand how teachers who participated in training programmes transferred their learnings in digital schools. There is a risk that teachers misconstrue digitalization as the audio-visual representation of textbook content.

Recommendation 3: Develop a distance learning strategy for the most marginalized

The current crisis has highlighted the inequalities within the education system, especially in terms of opportunities for continued learning as schools close and transition to distance learning. To be more resilient in the face of another systemic shock, context-specific strategies to promote distance learning are needed to ensure that the most marginalized children do not drop out. The strategy should focus on:

- **Identifying** who is most at risk of being marginalized from distance-learning initiatives. This comprehensive exercise should also identify the reasons why these children are at risk and marginalized (such as being the children of seasonal migrants).
- **Reach:** Based on the profile of disadvantaged children, a context-specific solution must be designed to reach them. Given that most learners in rural areas did not use e-learning tools during school closure, alternative distance-learning methods need to be deployed to reflect the current reality while continuing to focus on reducing the digital divide.
- **Teach:** As distance and self-learning methods cannot fully substitute in-class teaching by trained professionals, priority needs to be given to key foundational learning outcomes. Ensuring a strong base of reading, writing, comprehension and arithmetic skills will prepare students to more easily catch up once they return to school. If a child does not receive the right distance-learning support and either forgets or does not properly learn how to read, then she will not be able to keep up with her peers and learn other subjects. This lack might discourage her from continuing her education, which will affect her quality of life in the long term.
- **Support:** In addition to reaching and teaching marginalized children with context-specific distance-learning methods, it is important to address the reasons for children being at risk and provide a safety net to protect them from dropping out. For example, for girls from poor households, the families should receive the appropriate social protection packages and additional incentives (such as cash transfers) can also be explored to encourage these girls to remain enrolled and realize their full potential.

Recommendation 4: Review and improve data collection for targeted investments

In order to make targeted costed investments and prioritize strategies, real-time data needs to be collected through continuous comprehensive monitoring:

- Returning to schools safely with provisions for adequate WASH facilities is not only necessary in combating the current pandemic but also to comply with government policies and meeting the SDG targets. SOPs to monitor compliance with safe school reopening must put in place and data collected regularly – school management committees can be involved in holding schools accountable for following safety standards. The data must then be consolidated and analysed to identify any difficulties in implementing safe-school guidelines. With this information state and central government can make targeted investments to help schools improve their WASH and well-being facilities.
- More data should be collected on school infrastructure. For example, data should give a better sense of the quality of electricity supply (frequency of power cuts); whether backup inverter systems are available and functional, and for how long; quality of the internet connection; strength of mobile signal etc. Building a realistic picture of school infrastructure is a necessary prerequisite to rolling out digital learning tools and platforms. This data will allow policy makers to realistically cost and plan for linking all schools to reliable electricity and internet connectivity.

4.3 Conclusion

The government has made huge efforts to respond to the challenges created by the COVID-19 pandemic. As the world struggles together in figuring out what works best, India is leading the manufacturing of vaccines globally, and is currently undertaking the largest vaccine rollout campaign in the world. Even in the middle of the pandemic, the government released the 2020 NEP and remains committed to improving its education services and to the targets of SDG 4.

Challenges have been immense as no-one has been able to predict the potential impact of the COVID-19 infection on health, including children's health, and its transmission rates.

A decentralized approach has been taken, which makes sense in such a highly populated nation with a decentralized structure. Several states have developed approaches which could be emulated by other states. Digitalization is highlighted in the NEP and in the COVID-19 response as a means to strengthen access to quality education, but there are multiple challenges and several reasons why it should only be part of the response. These include the fact that schools perform multiple functions beyond academic learning; there is a risk of widening disparities in access to quality education due to the digital divide; and it would be extremely expensive to ensure that digital resources reaches every student.

Learning loss will be a critical issue to address across the nation and within states and schools – formative assessment and teaching at the right level will be essential to recovery, especially for marginalized children.



Annex

A.1 Interview plan

Teachers:

PANEL	NAME	DATE/TIME (LOCAL)
1	Teachers (English)	Thursday 22/10/20 14:30 – 15:30
2	Teachers (Hindi)	Thursday 22/10/20 16:00 – 17:00
3	Teacher Union Reps	Friday 23/10/20 14:30 – 15:30

NGOs:

NAME	POSITION/ ORGANIZATION	DATE/TIME (LOCAL)
Vinod Karate	CEO & Founder, The TeacherApp	Friday 15/10/20 3:00pm
Dr. Dhir Jhingran	Executive Director & Founder, Language and Learning Foundation	Friday 15/10/20 4:00 pm
Deepika Mogilishetty	Chief Policy & Partnerships, EkStep Foundation	Wednesday 21/10/20 3:00 pm

A.2 Interview questions

Teachers & teacher union representatives:

Prior to the school closure, what was the capacity of Indian government schools and teachers to switch from the conventional classroom-based model to distance-learning methods? What engagement had the teachers had with EdTech during 'normal' circumstances?

- Did you use technology in any form to support learning of your students in your classroom or outside? Please give examples.
- Did you get any training from the government or through NGO programmes on EdTech or on how to use any form of technology (mobile, internet, TV, radio etc.) to delivery your lessons or conduct assessments?
- Did your students use any form of technology to supplement their in-classroom learning?

- How were children with low learning or ability levels, special educational needs or disabilities reached and supported to participate in learning?
- Did you receive any training on children well-being, mental health and hygiene? Did you conduct any activities related to well-being, mental health and hygiene as part of your teaching role?
- What policies were in place for distance learning and digital delivery?

Situation during school closure:

Once the school education system moved to distance learning in the face of the school closures and other restrictions brought about in response to the COVID-19 pandemic, what methods did the teachers use to deliver effective materials and services to enable students to continue learning? What challenges did they face with regards to the use of technology to support distance learning?

- What guidelines were you given to switch to distance learning modalities when COVID-19 led to school closure? By whom?
- How quickly were you able to adapt the curriculum and lesson plans to distance learning methods?
- How did you support the learning continuity of your students? What technology-based methods did you use?
- Were you able to reach all children? How did you support marginalized children, such as children with disabilities, children with limited access to mobile phones or TV, children living in remote areas?
- What challenges did you face in switching from in-class to home-based learning? Did you have relevant the tools and infrastructure and know how to use to them effectively? Did schools get any grants or tools from the government or others?
- How were you supported either by government officials or NGOs to deliver distance learning? Did you receive any training or mentoring or peer support? What about teachers who did not have access to relevant technology (mobile phones/data etc.), how were they supported?
- Have you used the DIKSHA platform in anyway before or during COVID-19? What has your experience been? How can the platform or content be improved?

- Were you able to assess the engagement of children with the distance learning materials? Were you able to assess the children's learning outcomes? Despite all the efforts to adapt to distance learning, do you think there might still be some learning loss among children?
- How did you engage with parents to encourage them to support the learning of their children at home and make sure they had access to the right tools – phone, TV, laptop?
- How do students, parents, teachers and other stakeholders feel about distance learning?

Preparing for school reopening:

- Have any guidelines on school re-opening been shared with you? If yes, what and by whom?
- Will the school curriculum be adjusted or condensed once schools reopen?
- Are there any plans to provide remedial classes or catch-up support to children who might have fallen behind when schools were closed?
- Are there any plans to assess the learning levels of children when they return to school to find out how effective was distance learning and if there was any learning loss?
- What health, safety and well-being services are planned for when school re-open, if any?
- Are any teacher training activities planned to help them build capacity in EdTech?
- What is your perception of digital training for teachers and learning for students? Do you think they are as effective or more effective than face to face training and teaching?

The TeacherApp: Vinod Karate

- Can you please describe your involvement within the education space prior to COVID-19 and your involvement now? What new opportunities and challenges do you see?
- Could you please describe how your online teacher training platform works? What content is available; how the teachers engage with it; how does it fit with the existing teacher training curriculum?
- Provide details about your state partnerships – how was this partnership established? Who within the state governments do you work with? Where has your influence been most critical? How cost effective are these online training programmes?
- Describe your engagement with teachers and their attitudes towards digital integration in their pre-service and in-service training.
- Have you been able to assess the impact of The TeacherApp on student learning outcomes?

- What have been some of the key challenges with regards to teacher training and teachers supporting distance learning during COVID-19 (when schools were closed)?
- How can the government, with similar ambitions to integrate digital learning into mainstream schooling (ex. DIKSHA initiative), engage with teachers and Teacher Training Institutes (TTIs) to ensure uptake of the new ways of teaching and learning taking into account the poor access to infrastructure and digital tools?

Language and Learning Foundation – Dr. Dhir Jhingran

- Can you please describe your involvement within the education space prior to COVID-19 and your involvement now? What new opportunities and challenges do you see?
- Can you provide details about your state partnerships – how was this partnership established? Who within the state governments do you work with? Where has your influence been most critical?
- What technological instruments do you use in your teacher training programmes, if any? How has that evolved due to COVID-19?
- Do you envision your teacher training programmes evolving to include the enhancement of teachers' digital skills? How do you collaborate with TeacherApp in this regard?
- What have been some of the key challenges with regards to teacher training and teachers supporting distance learning during COVID-19 (when schools were closed)?
- How can the government, with similar ambitions to integrate digital learning into mainstream schooling (ex. DIKSHA initiative), engage with teachers and TTIs to ensure uptake of the new ways of teaching and learning taking into account the poor access to infrastructure and digital tools?

EkStep Foundation - Deepika Mogilishetty

- Can you please describe your involvement within the education space prior to COVID-19 and your involvement now? What new opportunities and challenges do you see?
- Provide details about your government partnerships – how was this partnership established? Who within the state governments do you work with? Where has your influence been most critical? How cost effective are these online training programmes? How are you engaged with DIKSHA?

- Describe your engagement with teachers and their attitudes towards digital integration in their per-service and in-service training.
- Have you been able to assess the impact on learning outcomes? What evidence do you have to support the effectiveness of distance/digital learning? Especially in comparison with in-classroom learning. Is it the same or better than face to face learning?
- Without the needed infrastructure, does distance learning lead to more inequity in the education sector? How does technology bridge that gap?
- What does the future of education look like to you? Will a hybrid model of distance/digital learning with in-classroom delivery become in the new normal?

A.3 Interview participants

Teachers:

STATE	PARTICIPANT NAME	DESIGNATION	CLASSES TAUGHT (PRIMARY/UPPER PRIMARY/SECONDARY/HIGHER SECONDARY)
Bihar	Nishi	Teacher	Secondary
Bihar	Talat Pravin	Teacher	Secondary
Bihar	Nmarta Mishra	Teacher	Upper primary
Bihar	Naseem Akhtar	Teacher	Secondary
Bihar	Pramila Singh	Teacher	Primary
Uttar Pradesh	Devesh Kumar Chakravarty	AT	Primary
Uttar Pradesh	Nisha Singh	AT	Primary
Uttar Pradesh	Shweta Somvanshi	AT	Upper Primary
Uttar Pradesh	Nandini Rathore	ARP	Primary
Uttar Pradesh	Preeti Singh	SRG	Primary
Rajasthan	Ms. Nidhi Ajay Pachhisiya	Teacher	Upper primary
Rajasthan	Mr. Deepak Pandya	Teacher	Primary
Rajasthan	Ms. Deepika Pandya	Teacher	Primary
Rajasthan	Ms. Khyati Sharma	Teacher	Upper Primary
Rajasthan	Ms. Mamta Yadav	Teacher	Primary
Rajasthan	Mr. Ravindra Kumar Sharma	Lecturer	Secondary/Senior secondary
Rajasthan	Sharda Meena	Teacher	Upper primary
Kerala	Rathi S. Nair	Teacher	Primary/Upper Primary
Kerala	Reena S. Anand	Teacher	Primary/Upper Primary
Kerala	Radhakrishnan Nair	Teacher	Primary/Upper Primary
Gujarat	Rakesh Bhai Patel	Head teacher	Primary/Upper Primary
Gujarat	Madhabhai Prajapati	Teacher	Primary/Upper Primary
Gujarat	Ms. Snehalben Patel	Head Teacher	Primary/Upper Primary
Gujarat	Ashish Trivedi	Teacher	Primary/Upper Primary
Gujarat	Ashok Parmar	Teacher	Upper Primary
Gujarat	Ms. Dhara Bhatt	Teacher	Primary/Upper Primary
Gujarat	Ms. Krupa Nakar	Teacher	Primary/Upper Primary
Gujarat	Ms. Bhamini Mistri	Head teacher	Primary/Upper Primary

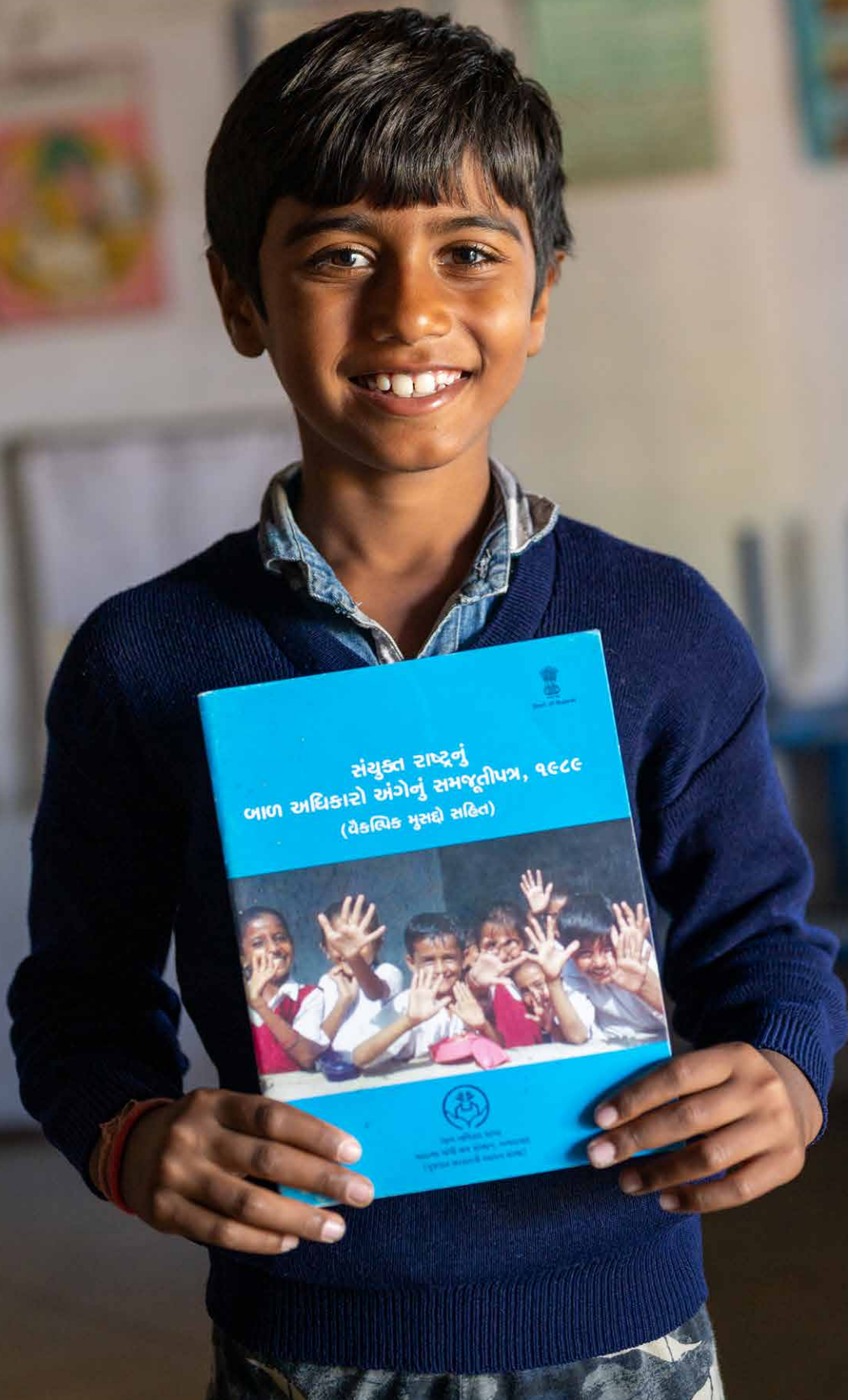
STATE	PARTICIPANT NAME	DESIGNATION	CLASSES TAUGHT (PRIMARY/UPPER PRIMARY/SECONDARY/HIGHER SECONDARY)
Maharashtra	Mr. Patil Bhagwant Bhimrao	Headmaster	Primary
Maharashtra	Mr. Attar Shamshuddin Nasiruddin	Assistant Teacher	Secondary
Maharashtra	Ayesha Iqbal Nadaf	Assistant Teacher	Upper primary
Maharashtra	Miss. Mrinal Nandkishor Ganjale	Assistant Teacher	Upper primary
Maharashtra	Swapnil Marotrao Vairagade	Assistant Teacher	Primary
Maharashtra	Shri. Rajendra Maruti Jadhav	Assistant Headmaster	Upper primary

Teacher Union Representatives:

NAME	DESIGNATION	ASSOCIATION
Seema Mathur	Women Chairperson	Akhil Delhi Prathmik Shikshak Sangh
Naveen Kumar	Deputy General Secretary	Bihar Madhyamik Shikshak Sangh
Vijay Kumar Singh	Gen Secretary	All India Secondary Teachers Federation
Indrashekhar Mishra	Gen Secretary	All India Secondary Teachers Federation
RC Dabas	General Secretary	ADPSS
Anuj Tyagi	General Secretary	Uttar Pradesh Shikshak Sangh
Ganapathi AGS	President	Andhra Pradesh Primary Teachers Association
Kanhu Ch Mohanty	Member	Odisha Primary Teachers Association
CP Sharma	Member	AIPTF, Rajasthan
Sushil Pandey	President	Uttar Pradesh Prathmik Shikshak Sangh
Nimai Chandra Mandal	Member	

EdTech Organizations:

NAMES	DESIGNATION	ORGANIZATION
Dr. Dhir Jhingran	Executive Director & Founder	Language and Learning Foundation
Ms. Deepika Mogilishetty	Chief- Policy and Partnerships	Ekstep
Mr. Vinod Karate	CEO & Founder	The Teacher App



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India Case Study

Situation Analysis on the Effects
of and Responses to COVID-19
on the Education Sector in Asia

This report reviews the impacts of and responses to COVID-19 on education in India, provides reflections on lessons learned so far in India's COVID-19 response, and analyzes capacity gaps for recovery. It explores successful elements of the Government response, issues and challenges faced, and strategies adopted to continue students' learning during school closures. It also looks to the future, in building back better and increasing the resilience of the education system to future shocks.

Stay in Touch

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