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Indonesia
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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Cover photo: © UNICEF/Beawiharta Bea

ISBN 978-92-806-5255-0 (UNICEF)
ISBN 978-92-9223-672-4 (UNESCO)

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TH/C4-216/IQE/21/038-ID

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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Acknowledgements

We would like to sincerely thank the following people who made valuable contributions to the development of this case study:

Samto Prawiro
Director of Community and Special Education, MoECRT

Jamjam Muzaki
Coordinator of the National Secretariat on Safe School, MoECRT

Rafles Ngilamele
Head of the District Education Office, Supiori District, Papua, for providing valuable information about the Learning from Home programme.

The Education Cluster Members who provided useful insights and evidence on the Learning from Home programme and the wider responses to COVID-19:

Imelda Usnadibrata
Head of Education, Save the Children Indonesia

Fredrika Rambu
Project Coordinator, Plan Indonesia

Maria Pardede
Member, Consortium for Disaster Education

Mega Indrawati
Education Team Leader, Wahana Visi Indonesia

Saskia Rosita Indasari
Education Specialist, Wahana Visi Indonesia

We would also like to thank members of the Indonesia UNICEF team from the country office for their contributions and for providing relevant documents used in the study:

Hiroyuki Hattori
UNICEF Chief of Education

Nugroho Indera Warman
UNICEF Education Specialist, ECE and EiE

Wahyu Agung Kuncoro
Safe School Consultant

Ali Aulia Ramly
UNICEF Child Protection Specialist, Indonesia, COVID-19 response on Social Protection and MHPSS

Yusra Tebe
EiE Consultant, COVID-19 response on LFH and Back to School Guidelines

We also want to thank the UNICEF Indonesia team in the Papua Field Office, who supported by setting up interviews with the District Education Office and for providing comments in the finalization of this document:

Aminuddin Ramdan
Chief of Papua Field Office

Siti Eliza Mufti
Education Specialist for Papua Field Office

Alvius David Mayoh Sikirit
Education Officer for Papua Field Office

Mee Young Choi, Education Chief, and **Zakki Gunawan**, National Programme Officer (Education) from the UNESCO Jakarta office for their coordination support and valuable comments.

Nyi Nyi Thaung, Programme Specialist, **Amalia Miranda Serrano**, Project Officer from the UNESCO Bangkok office, **Akihiro Fushimi,** Education Specialist, **Dominik Koeppl**, Education in Emergency Specialist, **Beverly Bicaldo**, ECD Consultant and **Maria Qureshi**, Education Consultant, from the UNICEF East Asia and Pacific Regional Office (EAPRO), for providing comments in the finalization of this document.

Ivan Coursac, Education Specialist/ Economist from the UNICEF Regional Office for South Asia (ROSA) for expertly leading this rapid Situation Analysis of the effect of COVID-19 on the education sector in Asia.

Emma Mba, Cambridge Education Project Director and main author for the report, and **Sue Williamson**, Cambridge Education Team Leader.

Finally, we also wish to express special appreciation to the Global Partnership for Education (GPE) for their financial contribution to the production of this report.

List of acronyms

AKSI	Assesmen Kompetensi Siswa Indonesia (Competency Assessment Indonesian Students)
AN	National Assessment
BNPB	Badan Nasional Penanggulangan Bencana (National Disaster Management Agency)
BOS	Bantuan Operasional Sekolah (Operational Assistance Schools)
CBDIS	Community Based Development Information System
CDE	Consortium of Disaster Education
CFR	Case fatality rate
CPD	Continuing Professional Development
COVID-19	Coronavirus disease
CWD	Children with disabilities
ECE	Early Childhood Education
EIE	Education in Emergencies
EMIS	Education Management Information System
EMMIC	Emerging market and middle-income country
ERT	Emergency remote teaching
ESP	Education Sector Plan
ESRP	Education Sector Response Plan
GDP	Gross domestic product
IDAI	Indonesian Paediatric Society
ILEG	Indonesian Local Governance Index
LFH	Learning From Home
MHPSS	Mental health and psychosocial support
MOECRT	Ministry of Education, Culture, Research and Technology
MOH	Ministry of Health
MORA	Ministry of Religious Affairs
MOSA	Ministry of Social Affairs
MOV	The Ministry of Villages
MOWCP	Ministry of Women and Child Protection
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OOSC	Out-of-school children
PISA	Programme for International Student Assessment
RDI	Resilience Development Initiative
RISE	Research on Improving Systems of Education
SDI	Service Delivery Indicator
SMC	School Management Committee
TIMSS	Trends in International Mathematics and Science Study
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WASH	Water, sanitation and hygiene

Executive summary

Introduction

The effects of COVID-19 around the globe have been unanticipated and significant. This Situation Analysis on Indonesia has been undertaken as part of the broader examination 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 initial impact that this may have on learners and their families, as well as on the overall education system. In doing so, it aims to develop insight based on the variety of responses to the pandemic, with a view to assessing their efficacy in Asia. It seeks understanding on the contextual factors that may have supported or hindered learning, with particular attention on the most disadvantaged groups who will be most affected by the pandemic. For this, 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 policy and financial implications on progress towards achieving SDG 4-Education 2030; and
- 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 that could be replicated or adapted for use in other countries. Following the development of the case studies (including this Indonesia situation analysis), the overall study will include an overview of the situation in each of the three Asian sub-regions, and finally the region as a whole.

This case study on Indonesia involved a desk-based review of secondary data, as well as interviews and focus group discussions with key government officials at the national level (who were responsible for guideline development), and the district level (who were responsible for implementation). Education Cluster members also shared their insights and recent surveys that they had carried out. The case study focuses on a deep dive into the Learning From Home (Learning From Home) programme, which was Indonesia's response to continue learning during school closures. Finally, the case study presents lessons learned and recommendations on how to strengthen systems to provide a re-imagined education sector for Indonesia's young people.

Effects of COVID-19 on the education sector in Indonesia

Over the last twenty years, Indonesia has made great progress in increasing enrolment; however, children's learning has not improved at the same pace. When the COVID-19 pandemic reached Indonesia, the government's first priority was to keep children safe. Their response was to initiate hygiene behaviour and social distancing measures in schools, and to close schools once the community spread of the virus began. To prevent students from disengaging in learning, the Ministry of Education, Culture, Research and Technology (MOECRT) in collaboration with the Ministry of Religious Affairs (MORA) and other stakeholders began the ambitious target of introducing remote learning for all 60 million children, spread across more than 12,000 islands. The result was the Learning from Home programme.

Closing schools and re-opening them only when they met safety criteria significantly reduced the risks of children (and teachers) contracting COVID-19, and has contributed to slowing the transmissions. The lockdown has come at a cost to the long-term well-being of children as learning was disrupted, vaccinations were put on hold, school feeding suspended, and child marriages increased. The economic crisis has resulted in many children feeling added levels of stress as families struggle to cope.

Access to and participation in learning

Early data shows that children more likely to drop out as a result of COVID-19 include: older children (mainly due to economic reasons and their ability to support the household financially); children with disabilities (as they are twice as likely to have two or more risk factors); and children from more marginalized regions such as Papua, East Nusa Tenggara and Sulawesi[1]. These marginalized

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groups have also faced challenges accessing remote learning, which is designed to be delivered both online and offline, partly due to unavailability of regular or fast internet connectivity and partly due to the capacity of teachers or regions to support remote learning. Children with disabilities have had more issues as teachers lack the skills to deliver inclusive lessons remotely, and young learners in Early Childhood Education (ECE) are unable to participate in online learning, and need a lot of support to learn from home, which not all parents or caregivers are able to give due to other priorities. The World Bank[2] has estimated that learning losses associated with school closures (as well as reduction in future annual individual earnings) will rise with every month of school closure, with the gap between the richest and poorest quintiles in Indonesia also increasing.

Safe operations

School re-opening criteria seek to balance the immediate health and safety of children and teachers with the detrimental effects of school closures on learning, enrolment, children's well-being and protection. For a school to be safe on re-opening, there must be adequate water, sanitation and hygiene (WASH) facilities and sufficient space for social distancing. The latest WASH data[3] for Indonesia (2019), highlights the challenges faced by the country in meeting this criterion, with 41 per cent of schools having no or limited hygiene facilities, and 59 per cent lacking adequate sanitation (with ECE schools being particularly affected). Social distancing is less of an issue generally, with schools being advised to use a mixture of phased opening, and shifting and staggered attendance; however, classroom ratios from small, remote schools (for example on some islands) may mask some of the data in large, overcrowded schools, highlighting the importance of a localized response. Indonesia had a successful school feeding programme in place prior to the school closures. As schools were closed during the pandemic, the programme was suspended, effecting the nutritional status of over 100,000 at-risk children at a time when household income, and therefore feeding patterns, went into sharp decline.

Health, well-being and protection

In early September, 2020, there was rising concern around the effect of COVID-19 on children (those under 18) in Indonesia. Indonesia was a prime example of the 'triple burden of malnutrition' even before the COVID-19 pandemic, with more than 7 million children under five stunted-- ranking Indonesia fifth highest in the world for child stunting[4]. Acute malnutrition is expected to increase given declines in agricultural production, market access and income, especially for poorer children and those with disabilities. The continuity of essential child health services, such as immunizations and access to village health services, has been affected by the pandemic, both of which will set Indonesia back on their achievement of SDG 3 (ensure healthy lives and promote well-being for all at all ages), as they are likely to have a long-term impact on child health and their development and learning. The well-being of both children and parents has declined as a result of COVID-19, and Indonesian children are experiencing more violence and being put at risk of violence as a result of school closures. Even before the pandemic, child marriage was an issue in some poorer areas, and evidence shows that during the pandemic, the number of child marriages has surged as poor families look to reduce their economic burden. Child labour is now more likely to take place in the home or supporting the livelihood of the household (e.g., farming and fishing) as employment opportunities were restricted by lockdown measures. Prior to COVID-19,

Indonesian children with disabilities faced considerable challenges. Research has shown that the disability of both children and parents is affecting their learning more now, and the likelihood of them returning to school.

Finances

Indonesia is the largest economy in Southeast Asia, a member of the G-20, and as a result of its ability to maintain consistent economic growth, has recently qualified as an upper middle-income country[5]. The World Bank predicts that Indonesia's gross domestic product (GDP) will bounce back quickly post-2020[6]. In the last 20 years, Indonesia cut the poverty rate by more than half. The country has put in place household-based social assistance programmes, using a social registry of poor and vulnerable households, which enabled the country to deliver COVID-19 support quickly and efficiently. Research studies[7] have shown that families' economic situations became worse since the onset of the pandemic, and the government is working with partners to support a fiscal and social response to ensure the poverty rate does not increase as a result of COVID-19[8]. By October 2020, Indonesia had spent over $20.3 billion (4.3 per cent of GDP) to stimulate the economy, employment and support enterprises, jobs and incomes[9]. Over the past 15 years, Indonesia has delivered on its target to spend 20 per cent of its national budget on education, greater than any other sector. Nonetheless, this is still only 3 per cent of GDP, one of the lowest in the region. The education costs of COVID-19 include cross-sectoral capital needs such as WASH facilities, and improved internet penetration and quality.

Main challenges faced by the sector

The education sector had two main challenges: how to keep children safe and how to continue learning during school closures. Implementation of the safe re-opening and remote learning policies was affected by the functionality of the decentralized system. This was made more complex due to the lack of adequate WASH facilities in schools, the difficulties of remote learning for young children, and the diversity of the country's levels of digital access, with the digital divide causing further inequalities for marginalized children. The challenge facing the future learning of children in Indonesia is three-fold:

- Children were already not meeting grade-specific standards before the crisis, with marginalized children underperforming most;
- Children have lost learning during the crisis and the gap between the most advantaged and more marginalized children has grown; and
- Children's future capacity to learn will have been affected through the longer-term economic repercussions as more families fall into poverty. In addition, the longer-term physical and mental health implications-- including nutritional issues-- will impact marginalized children more.

Response to COVID-19

The education response to COVID-19 focused on the two main challenges mentioned above. First, ensuring the safety of children through the development of Safe School Re-Opening Guidelines and developing a decentralized system for decision-making about school re-opening within this framework. And second, through developing the Learning From Home programme to ensure continuity of learning during school closures. Key to the success of the responses was the cooperation, collaboration and coordination between government sectors (health, information, social affairs, village development) and with Education Cluster members, who helped shape the design and supported the implementation of Learning From Home. Depth and quality of responses varied across the regions depending on: levels of political will to allocate resources to education at a time of health crisis; capacity to plan and implement education programmes; and the level of support provided by Education Cluster members.

The Learning From Home programme

Learning From Home was not aimed at meeting curriculum expectations, but was designed to ensure children enjoy learning activities within the home environment. As mentioned earlier, it included guidelines for both offline and online learning. Materials were available through on-line portals (or were printed and distributed), training was provided to teachers, and radio and TV broadcasts were delivered. In some remote areas, teachers visited students' homes or organized small groups to meet face to face outside school. Learning From Home has also changed the way education is viewed in Indonesia, and has opened up opportunities for innovation and transformation of how teachers teach and how children learn. It has also:

- Exposed weaknesses in the implementation framework for education, from decentralization of priorities and funding, to a lack of support for schools and teachers and child-level monitoring systems;
- Highlighted the lack of preparedness of teachers and schools in the use of technology, including the use of devices and software, and knowledge of the pedagogy of remote learning and assessment;
- Emphasized the need for students to be ready to learn online, and to have digital skills, access and ability to engage with remote learning;
- Highlighted the existing and growing inequalities in education access, provision and outcomes for marginalized children; and
- Strengthened the immediate need for Indonesia to invest in digital infrastructure and the EdTech sector in order to begin to address some of the divides and inequalities of provision and support.

Plans to build back better

MOECRT has a clear vision of what the future of education looks like in Indonesia, and much of this is already articulated in the Education Strategic Plan (2020-2024). These are based on the founding principles of Pancasila, the Indonesian state philosophy. It focuses on prioritising local values, building competency and children's character development and inclusion, and using learning materials designed and based on local wisdom.

"Learning can happen at home and in the school. While at home, parents can help children to understand their learning plan and what can be discussed at home, while school is used for collaboration and further clarification. This will be very effective even when the pandemic is over, so the students see that learning should come from their own initiatives, with their own targets, and achieved when they get to school with teachers -- in the future."

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Recommendations for increasing resilience to future shocks

As 2020 draws to a close, the focus of MOECRT has begun to shift the development of school reopening monitoring tools, the implementation of the emergency curriculum, teachers' capacity building, and the development of the learning digital platform. It is not surprising after such a tumultuous year, that the Education Strategic Plan (ESP) has been set aside as emergency measures to address an unforeseen crisis take priority. Many of the recommendations in this case study are aligned to the vision for education set out in the ESP, but have been contextualized to the COVID-19 situation. In the longer term, some radical reforms will be needed to ensure that the meaningful and well thought-out policies in the ESP are implemented effectively at school and district level, so that equitable learning can take place.

- Based on the long-term vision for Indonesia's education sector and pre-COVID-19 learning levels, clearly define the focus of learning for the short and medium-term, and the approaches to be used to achieve these;
- Develop a comprehensive strategy for taking forward a blended approach to learning that can be adapted to remote learning in times of crisis, but is also applied when schools are open as part of everyday teaching and learning to complement face-to-face lessons;
- Develop a comprehensive strategy for mitigating the inequalities in education in Indonesia;
- Review and revise existing national strategies, policies and plans to incorporate the reforms discussed in recommendations 1-3; and
- Identify and work towards improving the effectiveness of decentralized education financing and management.

Conclusion

Indonesia is well-placed to manage the COVID-19 pandemic. It is a country with committed leaders, a clear fiscal support programme, and has begun to develop positive multi-stakeholder and multi-sectoral engagement. Having spent the last nine months in reactionary mode, the country is now shifting to think about more medium to longer-term strategies. A key test of how successful Indonesia will be in addressing this global crisis will be the extent to which existing inequalities are targeted and reduced, and the extent to which learning loss is managed and declines in learning are reversed.

The data on Indonesia presented in this case study highlights the main impacts of the pandemic on the education sector. These include both impacts on participation and learning outcomes, as well as on broader the aspects of safety, health, well-being and protection. Dropouts, especially from the younger age groups of pre-primary and primary children, are reported to be very low. The challenge instead is to address the issues around economic hardship that are driving older children out of school and into the workplace, or into underage marriage. Indonesia's social sector has a good system in place for delivering targeted relief to households, which it has been doing. This needs to be maintained as long as the need continues, and incentives for those who have left education to join the workforce need to be considered if those children are ever to come back into school. The cost to society in the long term of providing emergency support is likely to be far less than the future loss in earnings for under-educated citizens. The pandemic has placed issues around child marriage in the spotlight, with girls significantly adversely affected. Community monitoring programmes such as the Community Based Development Information System (CBDIS) need to be harnessed by villages to highlight the potential risk of girls in each community, so that measures can be put in place to address the factors or social norms driving the phenomenon.

The longer-term health and well-being effects of lockdown on children's nutritional status, their physical and mental development, and their health status can still be addressed if remedial measures are taken to ensure missed immunizations are administered and school feeding programmes are reinstated or adapted to school closures. This is particularly important for younger children and pre-primary aged children whose development is at a crucial stage and depends on how safe they feel, and whether they have enough to eat. As the Indonesian economy is predicted to bounce back relatively quickly from the pandemic, the country will have sufficient resources in place to address the social and economic hardships that many families are experiencing.

Learning in Indonesia was already below curriculum expectations prior to the onset of COVID-19, with wide disparities by gender, region, disability, and other marginalization dimensions. While Learning From Home was not designed to continue curriculum delivery, the evidence suggests that children from urban and richer households will have progressed more academically than their poorer and rural counterparts. This has been accentuated by the digital divide, as well as the resources made available at local levels to implement and support Learning From Home. In areas where education has not been a priority, there is less capacity to support schools to reopen safely, or support teachers to deliver Learning From Home effectively, either offline or online.

Promising responses in education in Indonesia were demonstrated at the national level through the huge efforts put in to set up Learning From Home (guidelines, portals and curating materials), and to support decentralized decision-making through more flexible use of school funds and localized decision making about school re-opening (within an overall framework). Cross-sectoral responses by education, health and social protection agencies created safety nets for many children and families. This will have an impact on the longer-term development and opportunities of many children through enhanced nutrition and engagement with other services, such as immunizations. In addition to government coordination, the wider stakeholder engagement and cooperation has been very strong. There are private companies from IT sectors that supported free online learning, while civil society organizations supported various forms of distance learning, trainings, studies/surveys, and a widespread campaign of learning continuity during the pandemic.

As a result of the increased use of technology by teachers and students in Indonesia, the country is in a strong position to re-imagine what education should look like, and how it should be delivered, in ways that are in line with the founding principles of Pancasila.

Country fact sheet

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

DIMENSION	INDICATOR/QUESTION	INFORMATION		
Epidemiology	Date of first confirmed case	2 March 2020		
	Date of first confirmed death	11 March 2020		
	COVID-19 cases and deaths over time	927,380 cases and 26,590 deaths[10]		
	Details about the pandemic and government responses and supports	Cases in Indonesia have been slowly rising since the first two cases were reported in early March, and as of January 2021, the country has the highest numbers of cases and deaths in the sub-region. Despite this, physical distancing has been easing and air travel has resumed, and national guidelines have supported school re-opening across almost half the country's districts. The government has worked with donors to conduct mass sensitization campaigns and to put safety measures in place.		
School Closure	Were schools closed, partially or fully	Schools were closed fully from mid-March		
	Date of school closures	18 March		
	Date of school reopening	13 July 2020 (beginning of new academic year)		
	Have schools reopened fully or partially	All areas in Indonesia have been categorized according to their level of COVID-19 related risk. Schools in green zones, which fulfil the health and safety protocols established by the government, were allowed to open; other schools continued distance learning. Re-opening targeted secondary schools initially, followed by primary and special-needs schools in September and pre-primary schools in November 2020. Based on the current risk categorization, just 6% of schools were eligible to re-open. In August, MOECRT loosened the requirement by allowing schools in yellow areas to start in-school sessions, covering 43% of the student population. But the safety protocol remains tight.		
	What phase is the country currently? Phase 1, 2 or 3 and is this nationally or regionally?	Schools in Indonesia cut across the three phases of 'not yet opened', planning to re-open' and 'already open'.		
Key Vulnerable Groups	Key vulnerable groups affected by the impact of COVID-19 on the education sector	Disabled children and those at risk of child labour, as well as those who cannot access remote learning. The agricultural sector is the largest contributor of child labour in rural areas, and the trade sector is the largest contributor in urban areas.		
Education System Structure	Brief description of the structure of the education system – federal or centralized	The education system includes 12 years of compulsory schooling, and policy is set at the national level by the National Ministry of Education (secular schools) and the Ministry of Religious Affairs (Islamic schools). Indonesia operates a decentralized system of government. As a result, the Regions assign budgets and implement the policies supported by the Districts.		
Education Data [11]		**ECE**	**Primary**	**Secondary**
	Number of learners	6,335,662	24,700,853	20,153,545
	Number of teachers	474,108	1,462,541	1,284,396
	Number of education institutions	204,320	151,353	69,405
Pre-COVID-19 progress towards SDG 4 indicators	Out-of-school rate	Primary: 1% (boys) and 0.7% (girls) (2019)[12]		
	Completion rate	Primary: 94.5% (boys) and 96.5% (girls) (2019)[13]		
	Minimum reading proficiency rate	Grade 4: 46% (boys) and 60% (girls)[14] Grade 8: 44.15% (all)[15]		

01
Introduction

1.1. Background

The global nature of the COVID-19 pandemic makes it different, affecting the 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 impacted all parts of the world and the responses to the situation have disproportionally affected the most vulnerable and marginalized members of society.

Some of the most susceptible children felt the side-effects of COVID-19 from the moment nationwide lockdowns were put in place to control its spread. 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 virus, while deep-rooted inequalities in societies are being exposed.

With its huge population and overcrowded cities, Asia is potentially very vulnerable to COVID-19, which spreads through close contact with infected people. The contexts within which people of South Asia, South East 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 vast inequality between rich and poor, and therefore different levels of resilience to the shocks that this disease has brought, putting the deprived at long-term risks far beyond contracting the virus. This region regularly suffers from calamities, which lead to localized learning interruptions. For example, during the pandemic, Bangladesh and India were in the path of a cyclone, and recent floods have threatened communities.

This Situation Analysis has been undertaken as part of the broader examination 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 the overall education system. In doing so, it aims to develop insight based on the variety of responses to the pandemic, with a view to assessing their efficacy in Asia. It seeks understanding on the contextual factors that may have supported or hindered learning, with particular attention on the most disadvantaged groups (who will be most affected by the pandemic). For this, the analysis has the following objectives:

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- To examine policy and financial implications on progress towards achieving SDG 4-Education 2030; and
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The Situation Analysis identifies examples of effective country approaches, which could be replicated or adapted for use in other countries. Following the development of the case studies (including this Indonesia situation analysis), the overall study will include an overview of the situation in each of the three Asian sub-regions, and finally the region as a whole.

1.2. Methodology

The study includes an overview of the situation in each of these three sub-regions, with case studies providing a more in-depth look at specific areas in 14 countries. The case studies have been supported by the UNICEF and UNESCO offices in each country. They have provided relevant information and assisted the researchers to contact relevant officials to collect country-specific documents, grey literature and data that will help us tell the story of the COVID-19 disruption across Asia, its impact, and the responses of each education system.

In addition to a literature review, this case study also involved interviews with key stakeholders, which include government policy makers and implementers, UNICEF and UNESCO teams and Education Cluster members. This has provided an opportunity to learn more about the challenges faced and the responses developed, and provided a space for discussion and debate on lessons learned and what still needs to be done.

A cross-cutting focus on the most vulnerable members of society, particularly highlighting girls and learners with disabilities, has been applied across the assessment.

The aim of this is to identify interventions that have been able to successfully reach the most marginalized communities, and how their different needs were addressed to increase accessibility and participation for all.

1.3. Structure of the case study

The case studies are structured in four chapters. After this introduction and the above country profile, Chapter 2 discusses the effects of COVID-19 on the education system against four dimensions (see Figure 2 below). Challenges are identified and then the responses 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, which was identified in each case study country by the UNICEF and UNESCO country teams. Finally, Chapter 4 provides an overview of the Lessons learned, providing specific recommendations for the case study country and other countries on building back better, increasing the resilience of the education system to future shocks, and reimagining education.

FIGURE 1 | THREE PHASES OF SCHOOL REOPENING

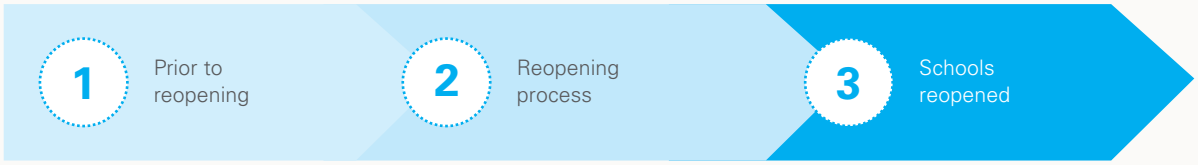
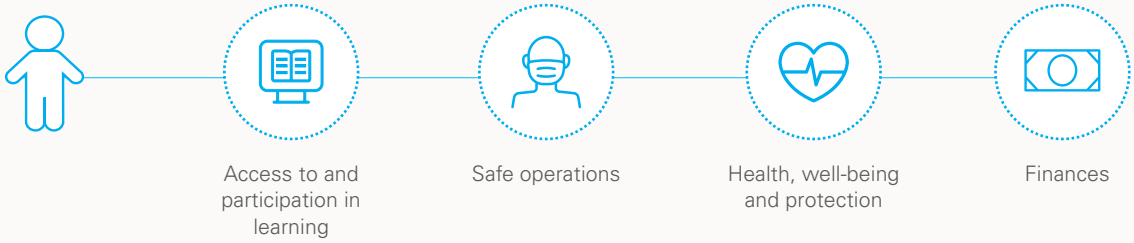


FIGURE 2 | FOUR DIMENSIONS OF ANALYSIS OF EFFECTS



02

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

2.1. Effects of COVID-19 against four dimensions

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

Indonesia, with a population of over 273.5 million people and dispersed over thousands of islands, is a complex and diverse country. Just two weeks after the first COVID-19 cases were confirmed in March 2020, the country went into lockdown, with physical distancing measures and travel restrictions put into place across the country. By January 2021, there have been 927,380 confirmed COVID-19 cases and 26,590 deaths[16]. Unsurprisingly, based on its size, Indonesia has the highest number of COVID-19 cases in Southeast Asia. The first wave peaked in September/October 2020, but since early November, the weekly increase in new cases has been steadily rising. Indonesia is clearly in their second wave of infections, with weekly reported cases almost four times those at the peak of the first wave.

Access to and participation in learning

"One third of Indonesia's population are children. This equates to around 85 million children, the fourth largest of any country in the world[17]".

Access

Indonesia has 6.3 million ECE students across more than 200,000 ECE schools, taught by over 470,000 teachers. About 1.5 million children up to four years of age are not living with their mother and father[18]. All children who are registered in ECE schools are recorded in the Education Data System (DAPODIK), and funding of $41 per child per year is provided to ECE schools to run and improve their institutes. In 2019, the enrolment rate in early childhood education for three to six-year olds in Indonesia was 37 per cent[19]. Despite statistics showing that young children are very unlikely to catch COVID-19, by 19 July, 2020, 2.3 per cent of confirmed cases in Indonesia were among children aged up to five. And 1 per cent of the total death rate were also in this age group (see Health, Well-being and Protection sub-section for further analysis on this). In March 2020, many ECE centres were closed as a result of COVID-19 and "many parents [had] misconceptions about the start of the new school year in ECE level[20]".

Since the early 1980s, Indonesia has had over 90 per cent net enrolment rate in primary education, and primary level completion rates improved from 89 per cent in 2011 to 94.5 per cent (boys) and 96.5 per cent (girls) in 2019[21]. The latest available data prior to COVID-19 (2019[22]) shows that out-of-school children (OOSC) rates in Indonesia were low for primary-aged children: 0.7 per cent for girls and 1 per cent for boys. Research has shown that parents prefer to educate girls at pre-primary level as they are "perceived to enjoy school more and have fewer behavioural challenges" than boys[23]. The implication is that girls have a stronger foundation in learning and higher expectations, which is seen in their results throughout their schooling (see below). At secondary level, around 12 per cent of both girls and boys are out of school[24].

At the national level, Indonesia has achieved gender parity in primary enrolment and has maintained this at least since 2010. However, this hides disparities across the country "with girls at a disadvantage in many districts and boys at a disadvantage in others[25]". The most recent national household surveys list the main reasons for girls and boys dropping out of school[26,27], shown in Table 1, with economic challenges topping the list. With poverty levels increasing as a result of COVID-19 (see subsection on Finances), there is a likelihood that even more children, especially those from poor families, and those living in rural and remote areas, will drop out as greater economic pressures are put on households and family income.

TABLE 1 | THE MAIN REASONS FOR CHILDREN DROPPING OUT OF SCHOOL PRIOR TO COVID-19[28]

REASON	% GIRLS	% BOYS
Insufficient funds	30.1%	33.0%
Working	13.7%	18.7%
Marriage	12.3%	0.0%
Other	24.5%	31.3%
Disability	4.8%	5.4%

"Economic hardship is linked to school dropout, since there is a direct cost to attending school, as well as an opportunity cost, though government social assistance programmes may reduce these costs[29]".

A World Bank study[30] (2020) has estimated that due to the economic downturn caused by COVID-19, the rate of OOSC is predicted to increase by 0.13 per cent at primary level (equivalent to an additional 48,175 children) and 0.15 per cent at secondary level (equivalent to 43,031 additional children dropping out). The study caveats these figures by pointing out that children may be less likely to find paid work due to the income shock of the pandemic. There is likely to be less demand for education by households as family income shrinks.

What is also striking is the number of children who fall into the 'other' category, which indicates that more needs to be done at local levels to find out what these reasons may be, so that supply or demand solutions can be developed.

"One of the main challenges in addressing the issue of OOSC is a lack of accurate data that could specifically identify who the OOSC are, where they live and why they do not go to school[31]".

The UNICEF-supported CBDIS (2017-2019) has been taken to scale across the country by village governments who use this data to provide targeted support for their children. The data has been very useful during COVID-19 as communities try to identify and reach the most marginalized children. Based on COVID-19 impact monitoring through CBDIS, of 145,000 children from 1,104 villages, in 347 districts and 33 provinces, 938 children (or 1 per cent of children aged between seven and 18) dropped out of school due to economic reasons brought about by COVID-19. This monitoring is a collaboration between UNICEF and the Ministry of Village (MOV) and was conducted at the end of 2020. The National OOSC Strategy and Operational Guide (both supported by UNICEF) were developed to fill this information gap and address the key barriers at local levels.

Seventy-four per cent of these drop-outs are due to economic reasons. Boys are dropping out more than girls, but girls are ten times more likely to drop out of school due to early marriage. Most children who drop out are 16-18 years-old or high school students. The factors that put the children at risk of dropping out include working (52 per cent), lack of learning facilities at home (33 per cent), caring for others (28 per cent), playing all day and not being monitored (both 13 per cent), getting married (2 per cent), and disability (1 per cent). Girls and boys are equally at risk of dropping out due to economic reasons. Children with disabilities are twice as likely to have two or more risk factors, and therefore more at risk of dropping out. Regional disparities also exist, with children in the eastern part of Indonesia such as Papua, East Nusa Tenggara and Sulawesi being at higher risk[32].

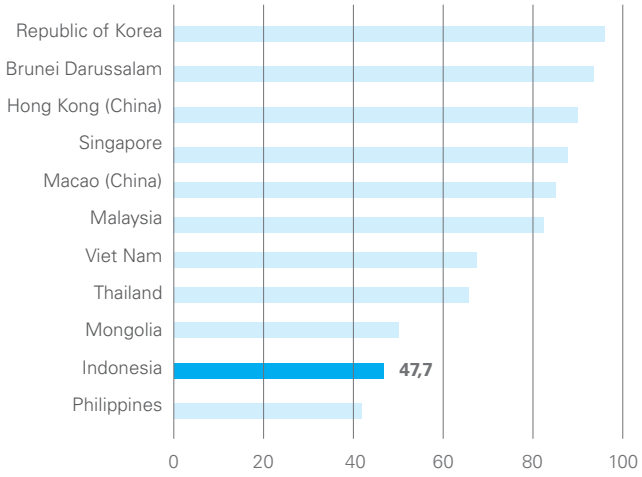
Access to Learning from Home: MOECRT has put in place the comprehensive Learning From Home programme, which aims to reach all children, from ECE to high school, during school closures and until schools are fully re-open, using both online and offline approaches, including through the internet, TV, radio and printed materials. Based on a UNICEF survey and ISEAS – Yusof Ishak Institute research review (see Chapter 3), the main modalities used by teachers and students are the online learning and printed materials. This may be due to the need to match lesson timing with TV and radio scheduling, which limits the learners' flexibility when they study during the day.

ECE children in particular experience challenges in remote learning, as they require intensive support for any activity they do and on-line resources are not very suitable for young children. Since they cannot read the instructions, it puts them at risk of inappropriate content and screen-time is not recommended. Even printing and distributing reading materials requires a literate adult in the house to be a success. During the school closures, MOECRT arranged online training for 5,100 ECE teachers, who became peer educators to over 10,000 ECE head teachers and over 100,000 ECE teachers through online and offline methods. This was mainly targeted at hard-to-reach areas, where schools were re-opening due to low case numbers, or teachers were making home visits to children. Twelve 'pocketbooks' with age-appropriate stories were printed and distributed; once again the focus was on supporting as many teachers and parents as possible who did not have adequate online facilities. ECE schools were given the flexibility to use funds to purchase materials needed for health control such as disinfectant, hand soap and face masks.

Challenges also exist for older students in accessing the online learning that requires access to internet, devices and digital skills. Indonesia ranks comparatively poorly in the sub-region with only 47.7 per cent of the population using the internet (Figure 3). At the sub-national level, internet availability is relatively high in the main island of Java, from 65 per cent in East Java to 89 per cent in Jakarta, but availability varies greatly outside Java (from 30 per cent in Papua to 79 per cent in East Kalimantan). Only 54 per cent of students between five and 14 have access to the internet, and only 24 per cent have computers[33]. This data implies that while schools are closed, children in rural Indonesia with no access to internet connections face a severe limitation in receiving education services[34].

The MOECRT's Education Sector Plan (ESP) (2020-2024)[35] reports that "more than 40 per cent of schools do not have internet access, especially at the elementary level. Internet penetration rates in schools are the lowest in the Papua region and Maluku– less than a quarter of all schools in the region have internet access[36]".

FIGURE 3 | INDIVIDUALS USING THE INTERNET (% OF POPULATION) 2019[37]



Learning

"Increased learning inequality is expected as students from poorer socioeconomic backgrounds and low attachment to learning may drop out of school[38]".

Like many other countries with rapidly expanding education systems, Indonesia's success in improving access and participation in education has not been matched by an increase in quality. Indonesia, despite being an upper middle-income country, shows lower rates of literacy than its poorer neighbours. For example, in 2018, 55 per cent of Indonesian 15-year-olds were functionally illiterate, compared to less than 10 per cent in Vietnam[39].

Learning Assessments: International assessments, such as PISA[40] (Programme for International Student Assessment) in 2018 and TIMSS (Trends in International Mathematics and Science Study) in 2015 show worrying trends, with little improvement since 2001, and a decline in reading scores since 2009. The World Bank calculated that it would take Indonesia 60 years to catch up with the Organisation for Economic Co-operation and Development (OECD) averages in learning assessment scores[41]. Depressingly, no Indonesian learners scored in the highest proficiency bands in reading or science, and only 1 per cent achieved this in Mathematics (compared to the 11 per cent OECD average). Despite Asian countries such as Singapore, Hong Kong (China), South Korea, Taiwan Province of China and Japan topping the TIMSS Grade 4 mathematics and science tables, Indonesia was 6th and 4th from the bottom respectively[42]. However, 14 per cent of disadvantaged students in Indonesia were able to score in the top quarter of PISA reading performance, compared to the OECD average of 11 per cent, indicating that 'disadvantage is not destiny'.

TABLE 2 | PISA SCORES FOR AT LEAST LEVEL 2 PROFICIENCY (2018)

SUBJECT	% INDONESIA	% OECD AVERAGE
Reading	30%	77%
Mathematics	28%	76%
Science	40%	78%

The Indonesia National Assessment programme conducted in 2016 for Grade 4 students found that 46 per cent of boys and 60 per cent of girls met minimum reading proficiency levels[43]. In 2019, 44 per cent of Grade 8 students met minimum proficiency levels[44]. This demonstrates that girls are doing better and learning levels decline as students progress through education without gaining the foundational skills they need to learn more complex concepts (see sections below).

Trends in Learning Outcomes: Research on Improving Systems of Education (RISE) study conducted in Indonesia in 2019[45] looked at changes in learning levels from 2000 to 2014. Compared to 2000 and for each Grade between Grade 2 and 5, the percentage of students correctly answering all question items from the previous grade is lower (Figure 4). The same study also showed a consistent drop in performance at curriculum level for all Grades between Grade 1 and Grade 12, between 2000 and 2014.

FIGURE 4 | TRENDS IN CORRECTLY ANSWERING PREVIOUS GRADE-LEVEL ITEMS FROM GRADES 2-5 (2000 AND 2014)

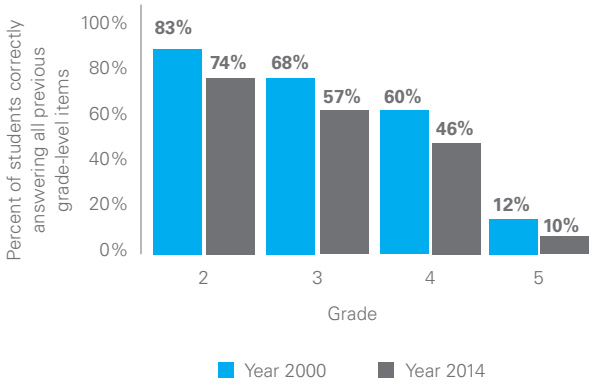
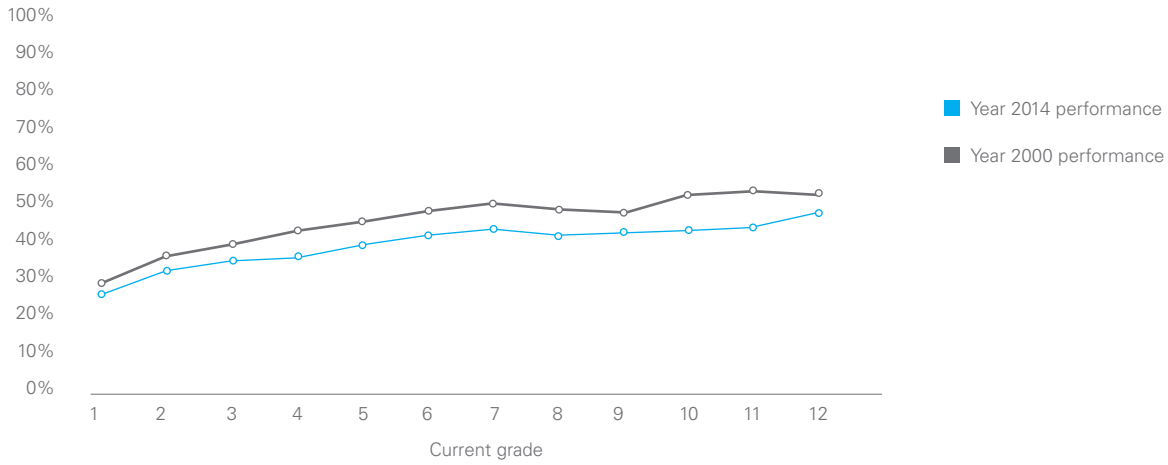


FIGURE 5 | PERFORMANCE AT CURRICULUM LEVEL BY GRADE (2000 AND 2014)



Equity of Learning: In terms of equity of learning, girls did better than boys in both international assessments and in all subjects in the national exam (Ujian Nasional) for Grade 9, from 2016 until 2018. This may be because girls in Indonesia attend more regularly and are considered to be more committed to their education than boys. A World Bank study of 56,000 male and female Grade 8 students (2018)[46] found that boys are more likely to miss schools than girls. Field visits also revealed that girls were said to be more diligent, mature and focused on their studies – useful traits for self-study. In terms of repetition, the rates are higher for boys at the primary level. In 2018, nearly 1.7 per cent of boys repeated grades in primary school, compared with 0.9% for girls[47].

MOECRT's Education Sector Plan 2020-2024 (ESP) raises the issue of geographical inequality in education, with the major issue being the disparity in the quality of education in Java with other islands:

"This can be seen, among others, from the results of the Competency Assessment Indonesian Students (AKSI). AKSI measures students' math, reading, and science skills in Indonesia. This assessment is low stake, because the AKSI score is not used as a determinant factor of graduation or class promotion. The study is based on the AKSI score and is expected to provide a true picture of literacy skills and elementary student numeracy. Islands in eastern Indonesia such as Sulawesi, Papua, the Maluku Islands and the Nusa Tenggara Islands show high disparities compared to DKI Jakarta and DI Yogyakarta in terms of AKSI[48]."

The explanation for these disparities is given as "geographic, regulatory, and governance limitations". Being a vast multi-island state results in unequal population distribution, with many rural and remote under-served areas.

"The mobility of teachers between regions is also limited, often concentrated in cities and large islands. Not many teachers can be placed in the 3T areas (lagging, outermost, and leading)."

The ESP recognizes that:

"From a regulatory perspective, the use of various support programmes by the government for quality distribution is not yet effective nor on target. Operational Assistance Schools (BOS) are distributed based on the number of students and target achievement, not on the real needs of each school."

The recently developed World Bank Tool for Simulating COVID-19 Impacts on Learning and Schooling Outcomes[49] estimates that Indonesian children had already lost 11 points on the PISA reading scale and $249 in future annual individual earnings, at the time when schools had been closed for four months. This will increase with each additional month of closure. As a result of COVID-19, the gap between the richest and poorest quintiles in Indonesia will increase from 57 PISA reading points (1.4 years of schooling) to 64 PISA points (1.6 years of schooling).

Any analysis of Learning From Home needs to be taken within the context of the education system prior to the onset of the pandemic. The data shows that Indonesia has been struggling to improve learning outcomes over many years, and thus highly unlikely that emergency remote learning would prove to be a magical panacea. This is why continuity of early learning is so critical, as it provides the foundation on which all other levels of education are built.

"Since Indonesia's learning levels are so low when schools are open, under the current scenario, school closures do not impact this indicator in a major way … 12.3 years of schooling in Indonesia only equate to 7.9 years of learning[50]."

Safe operations

School re-opening criteria seek to balance the immediate health and safety of children and teachers with the detrimental effects of school closures on learning, enrolment, children's well-being and protection. For a school to be safe on re-opening, there must be adequate WASH facilities and sufficient space for social distancing.

WASH facilities: The latest WASH data for Indonesia (Table 3) highlights the challenges faced by the country in meeting this criterion, with 41 per cent of schools having no or limited hygiene facilities, and 59 per cent lacking adequate sanitation. The data is particularly concerning for ECE schools, as face-to-face learning is more appropriate than remote learning for young learners. As mentioned earlier, ECE schools were given the flexibility to use their ECE Educational Operational Funding for health and safety measures, but this is likely to be insufficient based on the data in Figure 6[51].

A poll of teachers and head teachers by UNICEF[52] showed that their biggest concern was ensuring adherence of health protocols in schools. Their second major worry was on having good WASH facilities, with the availability of water raised as the biggest challenge.

Table 3 further disaggregates this data to show the adequacy of school facilities for safe re-opening, according to the forthcoming Indonesia Education Service Delivery Indicator (SDI) Survey[53]. As can be seen, the biggest challenge facing safety in schools is the lack of handwashing facilities, with almost half of all schools, especially those in the rural areas, not meeting the necessary requirements.

TABLE 3 | ADEQUACY OF WASH FACILITIES FOR RE-OPENING[54]

FACILITY	MORA SCHOOLS	MOEC SCHOOLS	URBAN SCHOOLS	RURAL SCHOOLS
Handwashing facilities with both soap and water	50%	56%	65%	43%
Clean toilets	79%	77%	Urban schools are 15% more likely to have clean toilets than rural ones	
Extremely clean classrooms	14%	18%		

Social distancing: On a positive note, the average pupil classroom ratios[55] across the country (Table 4) make achieving the 1.5m learner distancing, and a maximum of 18 students in a primary/secondary classroom in the updated school re-opening guidelines[56], a realistic ideal. However, classroom ratios from small, remote schools (for example, some islands) may mask some of the data in large, overcrowded schools, highlighting the importance of a localized response. ECE Centres are only allowed five children per class, which had implications on classroom and teacher availability. To meet this, schools have been advised to use a mixture of phased opening, shifting and staggered attendance.

FIGURE 6 | SCHOOL DATA FOR INDONESIA WASH SERVICE LEVELS (2019)

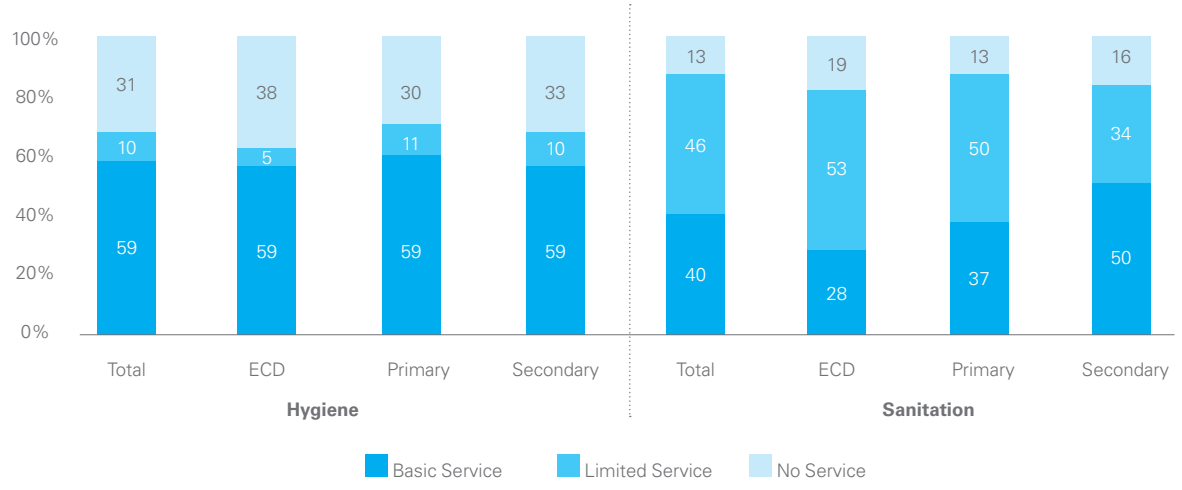


TABLE 4 | ADEQUACY OF SPACE FOR SOCIAL DISTANCING FOR RE-OPENING[57]

FACILITY	MORA SCHOOLS	MOEC SCHOOLS	URBAN SCHOOLS	RURAL SCHOOLS	PUBLIC SCHOOLS	PRIVATE SCHOOLS
Pupil Classroom Ratio	1:22	1:27	1:28	1:20	1:27	1:22

School feeding: The Indonesian school nutrition programme Program Gizi Anak Sekolah (Progas) was established in 2016 as a pilot plan covering 146 schools in four districts and two provinces. Since then, coverage has increased to 632 schools in 64 districts and 20 provinces (2018), targeting priority stunting districts where short-term hunger and undernutrition among primary school age children is prevalent[58]. Various studies (2018) have outlined the benefits of the programme to students.

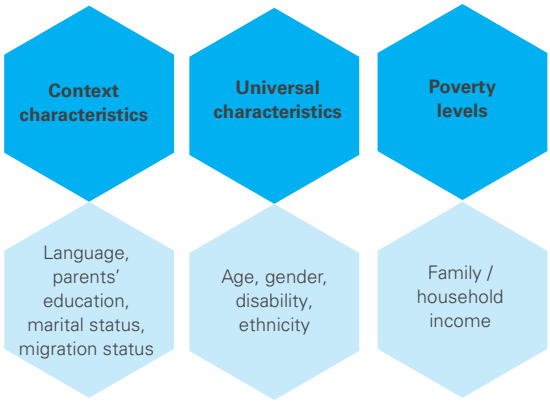
"Among the students who joined Progas, nutritional intake significantly increased during the project, while there were no changes in the control group[59]."

In addition, benefits have been seen to individual income potential, as well as the country's GDP, through increased productivity, healthier lives and improved gender equality. The World Food Programme is working with MOECRT to scale-up to cover more provinces and districts all over Indonesia, and ultimately to encourage institutionalization and sustainability by local government in all provinces/districts[60]. As schools closed during the pandemic, the programme was suspended, effecting the nutritional status of over 100,000 at-risk children at a time when household income, and therefore feeding patterns, went into sharp decline. This is covered more in the next section.

Health, well-being and protection

All children have been affected by COVID-19, but these effects are not equally distributed and have unequal impact as more marginalized children are disproportionally impacted. Children have different vulnerabilities, and these can intersect and increase their likelihood of marginalization (Figure 7).

FIGURE 7 | MARGINALIZATION FRAMEWORK[61]



Education is one way of improving social mobility and reducing poverty, but when a child is marginalized, barriers to accessing, participating and performing well in education increase.

These barriers include family and community barriers such as social norms, violence and neglect and household income, as well as blockades within the learning space, and the system itself.

These barriers impact on children's cognitive ability, their emotional well-being and ultimately their learning. COVID-19 has had immediate effects on access to and participation in learning, but the longer-term effects on children's health, well-being and protection are only just being recognized and quantified.

This section looks at how marginalized groups have been affected by the pandemic.

Health

In early September, there was rising concern around the effect of COVID-19 on children (those under 18) in Indonesia. Child case fatality rates (CFR) as well as child deaths per total COVID-19 cases were both far higher in Indonesia than other parts of the world and the region[62]. According to the Indonesian Paediatric Society (IDAI), most COVID-19-related child deaths in Indonesia occurred due to late treatment, and this was caused by the similarity of symptoms with other common diseases in the country and a lack of awareness. At the start of the epidemic, knowledge about COVID-19 was low among the youth, which may explain its rapid progression[63], especially among the youngest. Twenty-four per cent of youths who completed the survey had heard about the virus, although the majority of those sampled live in urban areas, where access to information is presumably higher. Twenty-nine per cent of respondents stated that they knew how it spread, 65 per cent reported that they knew how to prevent the disease, but only 30 per cent knew about the importance of handwashing, and even fewer about the importance of soap.

Comorbidity factors such as malnutrition and the prevalence of pneumonia have also driven up fatality rates among children[64]. Indonesia was a prime example of the 'triple burden of malnutrition' even before the pandemic. More than 7 million children under-five are stunted, ranking Indonesia fifth highest in the world for child stunting[65]. More than 2 million children under five years of age suffer from severe wasting (low weight for height), while another 2 million are overweight or obese[66].

Acute malnutrition is expected to increase given declines in agricultural production, market access and income, which may worsen the incidence and CFR among children, especially poorer kids and those with disabilities. A recent World Vision Report (2020)[67] found that declining household income during the pandemic has resulted in a deterioration in nutrition, which "increases the risk of acute and chronic malnutrition or stunting in children" as:

- Fifty-three per cent of households are unable to provide nutritious food (four types of balanced nutritional food sources);
- Ninety-seven per cent of children under two cannot meet the minimum food requirements based on the frequency and variety of food. Sixty-one per cent of households with infants aged six to nine months, and 52 per cent of households with children over nine months cannot provide main meals with sufficient frequency;
- Thirty-four per cent of pregnant women and 46 per cent of breastfeeding mothers are not getting enough basic food needs; and
- Seventy-six per cent of parents with disabled children found it more difficult to get food, and 47 per cent had a food crisis[68].

In addition to increased malnutrition, the continuity of essential child health services has been affected by the pandemic, both of which will set Indonesia back on their achievements of SDG 3 (ensure healthy lives and promote well-being for all), as they are likely to have a long-term impact on child health, as well as on their development and learning. For example, as a result of COVID-19-related physical distancing measures, in May, 2020, 80 per cent of immunization services were suspended[69]. In July, 75 per cent of integrated service posts at the village level reported closures, with over 86 per cent of facilities suspending child growth and development monitoring[70].

"During the height of the pandemic, only 45 per cent of respondents were visiting hospitals, far less than before the pandemic, when 79 per cent of respondents accessed the health service. Similarly, access to Puskesmas (community health centres) or clinics dropped from 94 per cent to 64 per cent during the pandemic. Fear of contracting COVID-19 while accessing health facilities is thought to affect decreasing visits to health facilities. Additionally, some health facilities are not fully operational, or even stopped operating during the pandemic[71]."

Well-being

The well-being of both children and parents has declined as a result of COVID-19, with four of nine parents noticing a behavioural change in their children[72].

- More girls were reported to be experiencing negative feelings (45 per cent) compared to boys (36 per cent), and the number of children with disabilities who experienced behaviour change were three times higher. Poor children felt more socially isolated than their richer counterparts (56 per cent versus 44 per cent); and
- Mental and psychosocial health decreased in three of four parents (75 per cent) and four out of nine parents felt that everything was difficult. However, Indonesian parents were less affected than parents globally, with 16 per cent in despair (versus 55 per cent globally), and 11 per cent depressed (versus 65 per cent globally).

Children only learn when they feel safe and happy. Once children's physical and mental well-being are affected, learning outcomes will begin to fall.

Protection

Before the pandemic, the rate of violence against children in Indonesia was already high: 60 per cent of children aged between 13 and 17 reported having experienced one form of violence (physical, psychological/emotional or sexual) during their lifetime[73]. As has been reported all over the world, the frequency of this abuse has increased due to lockdown and become more widespread, with a Save the Children Global Report[74] finding that 16 per cent of Indonesian children (compared to 37 per cent globally) experiencing more violence and being at risk of violence. This increased in families with disabled children (31 per cent), families who had lost income (40 per cent) or families who had been forced to move (60 per cent). A part of this problem seems to be a lack of reporting violence when it happens:

"Interviews with P2TP2A (Integrated Service Centre for Empowering Women and Children) in several locations revealed that there has not been an upward trend in child abuse due to pressure from social and economic impacts during the pandemic[75]."

Children living in poor households and those headed by children, women or elderly caregivers, are particularly in need of support and protection. Children in these households experience higher poverty than those in households headed by men. In Indonesia, some 8.2 million children are taken care of by an elderly caregiver, and are thus at higher risk for losing their caregiver due to COVID-19[76].

Even before the pandemic, child marriage was an issue in some poorer areas; girls are more likely to marry early and will often drop out of school even though this is not a legal requirement.

The non-governmental organization Girls Not Brides found that one in every seven girls in Indonesia is married before the age of 18[77]. Evidence shows that during the pandemic, the number of child marriages has surged as poor families look to reduce their economic burden. By June 2020, the number of applications for permission to marry underage (which is allowed through a loophole in the law that permits local religious courts to approve underage unions) were "more than two and a half times the total number of applications for the whole of 2012", with media reports stating that "Indonesia's Islamic authorities permitted more than 33,000 child marriages between January and June [2020][78]".

Child labour during the pandemic was more likely to take place in the home or supporting the livelihood of the household (e.g., farming and fishing) as employment opportunities were restricted by lockdown measures. However, World Vision found that 3.6 per cent of families allowed their children to work due to extreme financial pressure during the pandemic. The Save the Children report (2020) found that:

- Children were burdened with more domestic chores – 47 per cent did more domestic work, including taking care of siblings/relatives; and
- Girls were more burdened with domestic chores than boys (girls: 52 per cent vs. boys: 42 per cent).

In Indonesia, prior to COVID-19, children with disabilities faced considerable challenges to accessing and participating in education and in their learning, including a lack of facilities, equipment, teacher competency and supporting policies, and clear responsibilities. The number of children with disabilities decreases across the levels of education, showing that "children with disabilities are dropping out as they encounter barriers at progressively higher levels of the education system[79]". Save the Children found that the disability of both children and parents affect learning:

- Parents of a daughter with a disability were three times more unsure that their child would return to school (16 per cent vs. 6 per cent) after the pandemic than parents of children without disability; and
- Compared to parents without disability parents with a disability said their children had a difficulty comprehending homework (35 per cent vs. 45 per cent).

The MOECRT/UNICEF rapid assessment of home-based learning among children with disabilities during the pandemic found most of the respondents (74 per cent) stated that it was difficult to follow online learning[80]. The biggest challenge was difficulties in concentrating due to the learning environment; for e.g., because of interference from other family members, as well as due to the limited facilities and accessibility to needed materials and equipment at home. In addition, a lack of access to the internet due to physical or financial reasons was highlighted as a main obstacle for children with disabilities to effectively learn at home.

Finances

As mentioned above, Indonesia is the largest economy in Southeast Asia and a G-20 member[81]. It has made enormous gains in poverty reduction, cutting the poverty rate by more than half since 1999 to 9.8 per cent in 2020. However, due to its large population, this means 26.4 million people are still living below the poverty rate of just over $1 per person, per day[82] (set by government[83]). The government is working with partners to support a fiscal and social response to ensure the poverty rate does not increase as a result of COVID-19[84].

"The COVID-19 pandemic has pushed the Indonesian economy into negative growth for the first time in two decades. Growth is projected to contract by 1.6 per cent in 2020 as mobility restrictions, health risks and weak global economic activity depress private consumption and investment. Extreme poverty (based on the $1.9 per day poverty line) is projected to increase for the first time since 2006, from 2.7 per cent to 3 per cent between 2019- and 2020. Fiscal and monetary authorities responded to provide relief to households and firms and to stabilize the economy[85]."

Fiscal stimulus for social protection

Indonesia's discretionary fiscal response to COVID-19 is just below the average for emerging market and middle-income countries (EMMICs); more than India and Pakistan, but less than China and Thailand[86]. The World Bank predicts that Indonesia's GDP will bounce back quickly post-2020, with predicted growth rates of 4.4 per cent for 2021 and 5.1 per cent for 2022 (similar to the rate in 2017-2019)[87]. This assumes that investment and productivity increase, and sectors such as tourism are able to operate at pre-COVID-19 levels again.

By October 2020, Indonesia had spent over $20.3 billion (4.3 per cent of GDP) to stimulate the economy and employment, and support enterprises, jobs and incomes[88] including:

- Expansion of conditional cash transfer programme and staple food programme;
- Electricity bill discount for three months;
- Income tax exemptions for low-income workers and income tax deferrals;
- Village budgets to be revised to prioritize village-based Employment Intensive Cash for Work schemes to target marginalized groups;
- Cash compensation for three months for employees made redundant due to the outbreak, and alternative measures by companies to try to reduce redundancies such as reducing work hours, reducing wages and perks of top-level positions, etc.; and
- Financing, and corporation tax reductions and delays to debt payments for small and medium-sized enterprises.

Indonesia will celebrate 100 years of independence in 2045 and has a vision of achieving high-income status and reducing poverty to nearly zero. To achieve this, Indonesia will need to have "sustained growth and income opportunities for all," and in addition, "an inclusive and efficient social protection scheme ... that can adapt and operate in the context of continuous change"[89]. In the last 20 years, the country has put in place household-based social assistance programmes, using a social registry of poor and vulnerable households, which enabled the country to deliver COVID-19 support quickly and efficiently. It's also recently introduced a health insurance scheme, that when fully implemented will do much to improve comprehensive access to better quality health care. Going forward, the social protection system needs to do more to support the elderly, the disabled and households without children[90]. As has been seen in this case study, children living with grandparents and disabled parents, or children with disabilities, face additional challenges to participating in education and learning.

Household incomes and COVID-19

Research studies[91] have shown that families' economic situations became worse since the onset of the pandemic (three of four families lost some, or almost all of their incomes (Figure 8), while one out of four was in need of a job). More urban dwellers lost income but received less assistance than those in rural areas (22 per cent vs. 32 per cent). The share of minority groups experiencing a crisis was bigger (40 per cent vs. 34 per cent), and all-female families lost jobs more than other families (58 per cent vs. 36 per cent).

FIGURE 8 | EFFECT OF COVID-19 ON LIVELIHOODS (WVI, 2020)

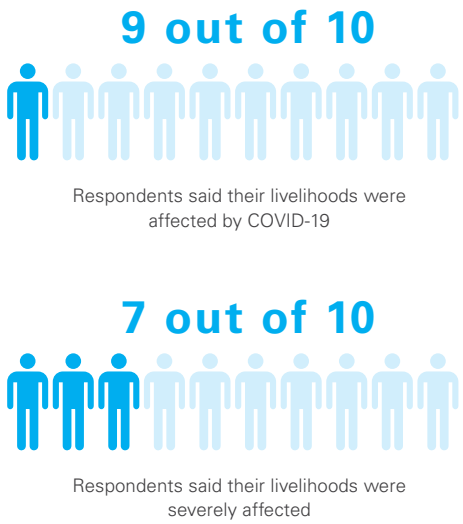
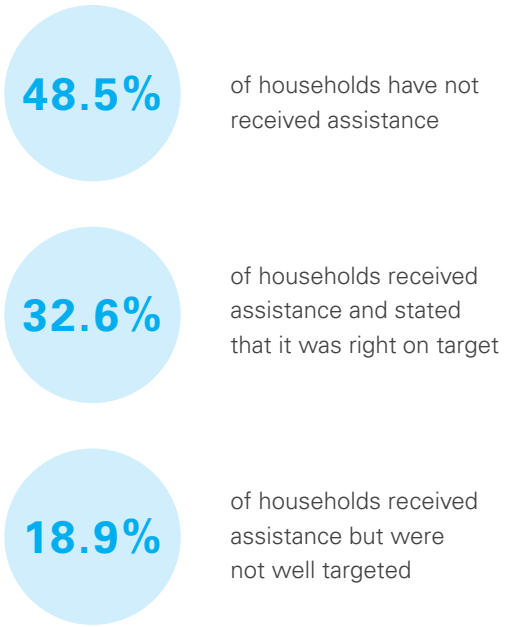


FIGURE 9 | ASSISTANCE RECEIVED BY HOUSEHOLDS (WVI, 2020)



Most households (77 per cent) do not have savings to fall back on during a crisis period and of those that do, 79 per cent have savings to last for less than one month. Households are therefore at great risk of becoming more vulnerable, especially since 22 per cent of households rely on loans to survive[92]. Other survival techniques include resorting to less preferred food (76 per cent), reducing kinds of children's food (52 per cent), eating less (65 per cent), and reducing meal frequency (57 per cent).

The most recent World Bank Macro Poverty Outlook reported that:

"As of early May, 78 per cent of the bottom 40 households reported receiving at least one of the social assistance programmes, or loan deferment and electricity subsidy programmes. But the implementation of certain programmes remains slow, and coverage is insufficient to compensate all affected households[93]."

Other reports show that government assistance beneficiaries had to be more targeted (47 per cent had not received the assistance, even though they were the most marginalized, left behind, and impacted; 7 out of 10 needed cash assistance or voucher)[94]. This was borne out by the World Vision data (Figure 9).

Education budget

"National education expenditure increased nearly eleven-fold in nominal terms and quadrupled in real terms over 2001-2016. Two thirds of education spending is managed by sub-national governments (province and district)[95]."

Over the past 15 years, Indonesia has delivered on its target to spend 20 per cent of national budget on education, and this has been greater than any other sector; however, it's still only 3 per cent of GDP, one of the lowest in the region. In MOECRT's ESP, Indonesia's education expenditure is compared with OECD countries, showing the aspiration of the country in terms of its economy and development. OECD countries' average government funding is 4.1 per cent and public funding is 0.9 per cent of GDP (5 per cent in total), whereas Indonesia's education public expenditure is just 0.4 per cent, making its total allocation only 3.4 per cent. This gap of 1.6 per cent of GDP results in a difference in education expenditure of $17.8 billion. Indonesia's strategy to bridge this gap is to develop "regulations that can encourage the private sector to participate in support of education financing[96]".

The government has also decentralized education functions and funding to the district and school level. This helped during the COVID-19 crisis, as the national government removed some of the restrictions on these funds so that they could be used more flexibly. However, capacity to plan and implement at the decentralized levels is still variable, and politics influence the level of prioritization of education at the regional/provincial levels, which determines the levels of resources that are channelled into education. The World Bank has also identified several challenges that exist in tracking budgets and expenditure at sub-national levels. These are included in Table 5.

TABLE 5 | KEY FINDINGS OF A REVIEW INTO SUB-NATIONAL EDUCATION EXPENDITURE[97]

Planning. Districts and cities plan largely based on quantity of inputs (e.g., number of teachers, school materials) rather than quality of outputs (e.g., school performance or student learning outcomes);

Budget allocation. Despite a constitutional mandate of 20 per cent allocation to education, 22 per cent (112 out of 508) of districts/cities and 35 per cent (12 out of 34) of provinces do not fulfil it.

Budget execution. Districts that do allocate 20 per cent of their budget for education as per the mandate, are not always able to fully execute their budget. Only 70 per cent of (270 out of 388) districts/cities have more than 95 per cent realization rates.

Local governance. Districts/cities with high standards of local governance (as measured by the Indonesian Local Governance Index, ILEG) tended to allocate the minimum 20 per cent of their budgets to education and demonstrated a high level of executing capacity.

Expenditure categories. Most expenditure categories in education financing data are not standardized across districts/cities and provinces, leading to difficult comparisons and analysis for improved decision-making.

Salary spending. Education spending at district/city level is dominated by payment of civil servant teacher salaries and limited resources for non-salary spending. Non-salary budgets are intended to cover costs of various programmes and activities, such as scholarships, additional grants for schools, teacher training, and other operational costs, which seem important for improving student learning outcomes. However, many districts/cities do not have the flexibility to implement such programmes due to large fixed costs for salaries.

Going forward, budgets will need to be substantially increased for WASH facilities in schools, space in classrooms for social distancing, and to support greater access to the internet, devices and high-quality content for Learning From Home.

2.2. Main challenges faced by the education sector

The education sector had two main challenges: how to keep children safe, and how to continue learning during school closures.

Implementation of the safe re-opening and remote learning policies was affected by the functionality of the decentralized system. This was made more complex due to the lack of adequate WASH facilities in schools, the difficulties of remote learning for young children, and the diversity of the country's levels of digital access– with the digital divide causing further inequalities for marginalized children.

"Providing equal access to necessary technology is key in curbing inequities that will otherwise escalate with the increasing adoption of online learning[98]."

Underpinning all of this were concerns about the ability of teachers to change to remote teaching and the need to ensure consistency of quality in their provision. Not to mention the ability of learners to access and actively participate in remote learning, and be self-motivated to learn independently.

"To help students recover from time out of school, teachers will need to use pedagogy effectively to help them learn more material, faster. Data from the SDI survey on teacher pedagogy skills and subject knowledge indicate that this will be a significant challenge[99]."

However, Indonesian teachers scored well on socioemotional skills, demonstrating growth more than fixed mindsets, "which is encouraging in relation to their ability to learn and cope with adversity and challenges." Teachers are open-minded, "which is an essential skill when adapting to new technologies[100]".

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

The Government of Indonesia, through the National Task Force for COVID-19, has developed a National Response and Mitigation Plan for COVID-19. The Coordinating Ministry for Human Development and Cultural Affairs leads the Steering Agency, with the National Disaster Management Agency (BNPB) as the lead Implementing Agency.

The Government introduced physical distancing measures on 18 March, 2020, which are still in place. These include: adhering to social distancing, wearing a mask, and washing hands with soap. However, based on Google mobility data[101], the percentage of individuals across the country who stayed-at-home during this period rose very slowly from the 35 per cent baseline in March 2020 to 41 per cent in May (the highest figure reached). This observance was higher among wealthier households and those in Jakarta (which reached 60 per cent adherence at the height of the lock-down). Confined poor neighbourhoods found social distancing much more difficult. Since the lock-down measures began to ease, the Government Task Force has been lifting physical distancing measures through a classification system for local areas. Each is being graded as green/yellow/red zones based on a range of epidemiologic, public health and health-system capacity criteria, informing decisions on intensifying and easing restrictions[102].

Phase 1 - Prior to reopening

Schools closed on 18 March, 2020 and any type of examination that required students to gather were cancelled. This included the national examinations for Grades 9 and 12.

Safe operations

The new academic year for 2020/2021 in Indonesia was supposed to commence on 13 July, 2020. Only a small number of schools reopened for classroom learning due to COVID-19-related risks. At the beginning, only schools in 'green zones' that fulfilled the health and safety protocols were allowed to open. Other schools continued distance learning. Re-opening targeted secondary schools initially, followed by primary and special needs schools in September, and pre-primary schools in November. Based on the current risk categorization, just 6 per cent of schools were eligible to re-open. In August, MOECRT loosened the requirement by allowing schools in yellow areas to start in-school sessions, covering 43 per cent of the student population[103]. It is important to note that even when schools were allowed to reopen, most schools in practice remained closed.

UNICEF supported at the national level through the development of guidelines for safe schools (prior to school closures), remote learning, and then safe re-opening. The policies are very comprehensive and based on global frameworks for reference, then contextualized for Indonesia[104]. Education Cluster members supported government by translating these national polices into useable documents at the sub-regional level. The final campaign was Back to Learn not Back to School due to the phased process of re-opening, as most children will resume online learning. Education Cluster partners met regularly throughout the period and fed lessons up to the government at the central level. Education Cluster members have also supported dissemination of communication materials and policies across the country through a variety of channels, including social media.

Health and well-being

UNICEF has been providing support to the Ministry of Social Affairs (MOSA) to register vulnerable children for child social support, and to support MOSA interpret the data and provide tailored support. In the first five months of the pandemic, 6,400 social welfare centres registered in the database, increasing the number of children included to over 250,000. The majority of those registered are being supported through social support mechanisms. An inter-disciplinary task force is supporting greater analysis of the data, improved monitoring and processes, and linkages with the education EMIS data. This will give a clearer picture of the numbers of children who are at risk of dropping out.

UNICEF, together with the Ministry of Health (MOH), has led the development, dissemination and implementation of the technical guidelines on continuing eight essential nutrition services in the context of COVID-19. It has been disseminated via webinar to all 260 stunting priority districts across 34 provinces. In the six provinces supported by UNICEF, this covered more than 3.2 million children.

Phase 2 - part of the reopening process

The Education Cluster members supported MOECRT through the development of the Education Sector Response Plan (ESRP), which is aimed at helping the government achieve their programme on safe learning and school re-opening in Indonesia during the pandemic.

Access to and participation in learning

Most of the focus of MOECRT has been on establishing and supporting Learning From Home. This is covered in detail in Chapter 3.

Safe operations

MOECRT were very cautious about how to communicate to parents around school re-opening.

"Communication on going back to school is not for getting them back into the classroom – it's for the areas with no electricity or internet or devices. We do provide an option that they can come to school, but we are not encouraging them to come to school. COVID-19 is still high in some areas, so we are afraid to campaign for children to come back to school, or the safety of children will be at stake. It's an autonomy law – regions should do studies, research and screening to see which schools are ready and which ones have adequate sanitation, etc., in place. MOECRT are requested to drive the change of behaviour to decrease the spread and comply to the health protocol through TV ads, social media, radio, socialization, webinars, and videos for before-and-after learning sessions-- at school and at home[105]"

UNICEF has been supporting MOECRT and MORA to monitor schools, and this is regularly updated using an online dashboard (Kesiapan Belajar [kemdikbud.go.id) The dashboard provides information for each province on the number of schools implementing learning from home, and those using face-to-face learning. Data is collected on all 533,261 schools in the country. By September 2020, 70 per cent of schools had not provided information. Of those who had, 86 per cent were still using Learning From Home, and 14 per cent were conducting face-to-face lessons. With the new joint agreement in January 2021, the decision on school re-opening will be under the authority of the local government. The dashboards are being renewed and simplified, and the local government has the obligation to verify the data. These efforts are being made to improve the response rate of reporting from the schools that by the end of January, was around 50 per cent. The new dashboard is expected to be launched by early February, 2021.

Education Cluster members have been working to support government efforts to ensure the availability of WASH facilities in schools. However, the challenge is currently greater than the resources available. The inter-cluster UNOCHA has begun to discuss how the Ministry of WASH/Infrastructure can work together with MOECRT to address this shortfall. Currently the budget for WASH support stands at 10,000 schools per annum, which is grossly inadequate considering Indonesia has over 500,000 education units.

Health and well-being

The ESRP includes the dissemination of information and psychosocial services in schools, to support a return to school (prevention of bullying, stigma, etc.).

Phase 3 - With schools reopened

Indonesia's schools remained closed for a long time in 2020 in some areas, or opened and then closed again. In December 2020, the government revised the joint decree on school reopening to enable local governments to decide without further reference to the green, yellow and red risk zones. This started to be applied in January 2021.

03

Thematic deep dive

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> Going forward, MOECRT's vision for education is to continue to leverage technology to enable more independent and differentiated learning, combined with a greater understanding of the benefits of collaboration and feedback in a school-based, face-to-face setting.

Interviews for this thematic deep dive were held with senior leaders in MOECRT-- responsible for designing the COVID-19 remote learning response, as well as with a district level officer who has been implementing the guidelines. Education Cluster members were also consulted, who have been supporting the government in the design of the guidelines, as well as implementing them in their project schools. The area used for this case study is Supiori District in Papua, the largest and most easternmost province in Indonesia. Supiori is a remote area off the north coast of Papua, which is made up almost entirely of the island of Supiori. The district was selected in consultation with UNICEF/MOECRT to gain first-hand information and insights from a typical remote and rural area. The information presented in this section is based on the information shared during those interviews, as well as a review of official government documents and Education Cluster updates and surveys.

As mentioned, MOECRT's key priorities during the COVID-19 outbreak were to keep children safe, and to keep them learning. The most important policy response to this end was the development of Learning From Home. Its growth constitutes a significant achievement for MOECRT, which has shared the lessons they learned during its implementation:

- Learning From Home raised the awareness of parents and their level of involvement in their children's education;
- Technology use is now more widespread and seen as highly useful for education by all stakeholders; and
- As a result of remote learning, some students have taken more ownership of their own learning.

Going forward, MOECRT's vision for education is to continue to leverage technology to enable more independent and differentiated learning, combined with a greater understanding of the benefits of collaboration and feedback in a school-based, face-to-face setting. Therefore, during discussions with MOECRT and UNICEF/UNESCO, it was agreed that this case study should focus on a deep dive into the Learning From Home experience, so that lessons and analysis can be used to support the development of this vision into reality.

According to MOECRT, Learning From Home had two objectives:

1. To protect Indonesian children from the virus; and
2. To continue to provide quality education.

3.1. The challenge

The tests that MOECRT faced included:

1. **Deciding what content should be included in Learning From Home.** MOECRT's intention was that the Learning From Home content should not try to mirror the usual curriculum progression. Instead, the aim was that it should be fun and should continue to engage children to want to learn. This meant that learning should be contextualized to the situation in which the students found themselves, and the tasks given to students should be suitable to the home environment. As Learning From Home was rolled out, there was a concern that teachers would cover the curriculum as normal, resulting in students feeling bored and unengaged. And worries of parents trying to be teachers to help them, which proved frustrating for both students and parents. Parents of ECE children were encouraged to involve children in activities at home as learning experiences, but for many working parents, there was little time available to do this effectively. Or they lacked the knowledge and skills to do so.

2. **Making the transition from learning at school to learning at home.** At first, Learning From Home tried to duplicate school-based processes: lessons starting at 7am, students expected to wear uniform, and following the normal school timetable. This proved stressful to students and parents and was quickly abandoned for a more flexible approach. For ECE settings, this was particularly difficult, as younger children could not participate in remote learning.
3. **Balancing access and safety.** MOECRT needed to provide a flexible and contextual response, especially in rural or underserved communities, by allowing re-opening where a) access to online learning is difficult (e.g., for ECE children), and b) the school can re-open safely (i.e., facilities are in place), or in areas with very low COVID-19 cases and spread.
4. **Providing equitable access to continued learning.** One of the biggest challenges during the school closures was providing alternative home learning for those who do not have regular access to electricity, internet or a device. Or for those who cannot use these, for example, people with certain types of disability or younger children.
5. **The ability of learners to actively participate in remote learning and be self-motivated to learn independently.** Many children were not given the opportunity to engage with Learning From Home due to their home setting, especially more marginalized children such as kids with disabilities, those in poor households, or those who are already at risk of domestic violence or child marriage. Some students had caring responsibilities, or were expected to engage in income-generating activities such as fishing or farming. In households with many children, access to available devices was limited. Prior to school closure, students had not been encouraged to take responsibility for their learning, which was mainly teacher-led. Skills such as resilience, perseverance and self-motivation were needed to fully participate remotely. Young children, and pre-schoolers in particular, are not functionally literate or independent learners, and their ability to learn therefore depended heavily on the availability and capacity of their parents/care-givers to support them.

6. **Managing the high expectations for teachers to adjust to a new curriculum.** As mentioned in Chapter 2, prior to COVID-19, Indonesian students were not learning up to the curriculum standard. The same teachers who found conventional teaching a challenge were given a whole new set of responsibilities, and had to quickly learn new skills and adapt with little or no support.
7. **Monitoring and coordinating the implementation response have been a huge challenge.** Information sharing has been a trial, as everyone has been focusing on reactionary responses. This resulted in each province and district receiving different levels of support. Added to this, lessons were not shared, the quality of support and delivery was not standardized, and no additional funding was available for best practices to be rolled out. In addition, the remote nature of much of Indonesia means that in many communities, communication and reporting is an issue. For example, to conduct this case study, the district education officer who was interviewed had to travel for several hours by car on bad roads to get to a location that would enable him to join a Zoom call. Many journeys within Indonesian are made not by roads, but rivers and sea. Consequently, during rainy season, travel in places is severely hampered and made impossible. As one Education Cluster member shared:

"We support communities where less than 50 per cent of teachers have smart phones, and it takes seven hours by canoe to get to the nearest city to report on the use of school funding."

3.2. The response

From 23 March, 2020, over 500,000 schools were asked to close. The government needed to come up with a response that met the learning and psychosocial needs of a diverse population, across age groups and different geographical contexts. The result was Learning From Home, which provided online, TV and print materials for continued learning during school closures. This initiative was led by the Safe School Secretariat in MOECRT, which also handles Education in Emergencies.

TABLE 6 | INDONESIA'S RESPONSE TO CHALLENGES OF REMOTE LEARNING[106]

CHALLENGE	RESPONSE
1. Deciding what content should be included in Learning From Home	Preparation of guidelines at the national level to share the vision of Learning From Home. This was disseminated to all regions.
2. Making the transition from learning at school to learning at home	Allowing a flexible response that included home visits and offline learning, as well as online learning. Provision of MHPSS support.
3. Balancing access and safety	Risk ratings to classify schools by safety levels alongside community decision-making on re-opening ensured no school was forced to open against the wishes of the community.
4. Providing equitable access to continued learning	Provision of devices and internet data, offline learning materials, home visits, flexibility in use of school funds to address equity issues such as additional resources for disabled children.
5. The ability of learners to actively participate in remote learning and be self-motivated to learn independently	Training for teachers on how to motivate students. This was mainly delivered online so did not reach all teachers. Support to parents on supporting children at home-- again mainly provided online.
6. Managing the high expectations for teachers to adjust to a new curriculum and a new way of delivering lessons and supporting students	Training was provided online, and regions were responsible for funding and organizing decentralized training. Peer-sharing portal developed for teachers to share best practices.
7. Monitoring and coordinating the implementation response have been a huge challenge leading to gaps in knowledge of the reality on the ground and inconsistent levels of support	Decentralized levels of government expected to submit weekly updates on implementation, which created a dashboard. Average response rates by schools of 50 per cent. Very little real-time data, and none by teacher/student.

Addressing the challenges

Table 6 summarizes how the challenges mentioned in 3.1 were addressed.

Three of the Education Cluster members have conducted surveys on Learning From Home, as well as ISEAS – Yusof Ishak Institute. Data from these has been used in this section to describe the response in greater detail:

1. UNICEF/MOECRT: Students' and parents' experiences of Learning From Home were captured in a survey conducted by UNICEF and MOECRT in May 2020[107]. There is a bias in the survey as the majority of student respondents (92 per cent) are in senior/vocational secondary school, from urban (non 3T)[108] areas (93 per cent) and girls (62 per cent). Likewise, the majority of parent respondents are living in urban (non 3T) areas (80 per cent) and 44 per cent of their children are learning in senior/vocational secondary school. However, it provides some indication of how Learning From Home was implemented from the children's and parents' perspective.
2. Save the Children Indonesia: Save the Children (SC) conducted a global study ('The Hidden Impact of COVID-19 on Children') and Indonesia was included in the research. The study covered aspects such as health, nutrition, psychosocial, distant learning, well-being, protection, and economic aspects. SC also identified children's and families' needs and listened to children's opinions and their messages for leaders and other children around the world. Parents and children who were SC beneficiaries, the target population and members of the general public were interviewed in Indonesia.
3. Wahana Visi (World Vision) Indonesia: This organization conducted a survey titled 'COVID-19 Pandemic and its Impacts on the Children of Indonesia – a Rapid Assessment for Early Recovery Initiation'. The study involved telephone interviews involving 900 households from the lower middle class, 943 children in North Sumatra, DKI Jakarta, East Java, Bengkulu, North Sumatra, West Kalimantan, Central Sulawesi, Papua, North Maluku, and East Nusa Tenggara.
4. ISEAS – Yusof Ishak Institute: Published a research paper on 'Teaching and Learning During School Closure: Lessons from Indonesia[109]'. The analysis looks at four aspects of teaching and learning during school closure: student-teacher interaction; teachers' ability and/or willingness to adapt the curriculum; support received by teachers from schools, local government, and non-governmental organizations; and family and parental support for learning.

Guideline development and coordination

The MOECRT-led process of developing the Learning From Home Guidelines[110] was completed in just over one month, and by 15 May, 2020, the Guidelines were circulated to all education offices in 34 provinces and 514 districts and were made available online. The Guidelines set out how Learning From Home should be implemented and specifies the roles of the sub-national education office, teachers, students and parents. There are two websites which provide COVID-19 specific information[111], and the guidelines also describe the options for both online and offline learning approaches (Table 7), along with links to related websites.

TABLE 7 | LEARNING FROM HOME APPROACHES[112]

ONLINE DISTANCE LEARNING	OFFLINE DISTANCE LEARNING
This includes a range of resources available online, including those prepared by MOECRT, and those managed by learning technology partners[113]. • Portals with learning resources for each level of education including videos, books, multimedia resources, resources on equality and on parenting and family education and on Early Childhood Education (ECE) • Teacher courses and sharing portals • Learning Management Systems (LMS) for assessment • Educational TV and Radio links	• Television, for example Learning From Home Programmes through TVRI (Indonesia's public television network) • Radio programmes • Materials produced locally using books, modules and teaching materials from the surrounding environment. This can include being in different languages for Early Childhood Education • Independent learning modules and worksheets • Printed teaching materials • Props and learning media from nearest objects and surrounding environment

The development process was led by special staff of MOECRT through the National Safe School Secretariat, and was supported by other ministries such as MORA (who run Madrasah schools) and Education Cluster members. It was coordinated by UNICEF and many other international and locally based non-governmental organizations (NGOs) such as Resilience Development Initiative (RDI), Save The Children, World Vision, and Plan International, plus 36 members of the Consortium of Disaster Education (CDE), which includes NGOs and faith-based organizations. The technical support from the Education Cluster members included: conceptualising the framework, writing the content, dissemination to the public and government at national and sub-national levels, and supporting the implementation through existing donor-funded programmes. This collaboration was initiated through existing relationships and was considered crucial by the government:

"Collaboration is essential in policy drafting and in implementation on the ground. With this, Learning From Home implementation was accelerated and better quality and feedback (some from studies and surveys) fed back into implementation[114]."

Education Cluster members worked collaboratively to develop the Education Sector Response Plan, which has been shared with government, and which sets out the activities of all members under two main goals:

1. Ensuring the continuity of quality and inclusive learning for all students affected by the closure of schools/ Learning From Home; and
2. Provide safe, protected and inclusive access to education for learners during the reopening period of formal education.

Each goal has a number of outputs and each output includes different activities. For example, UNICEF provided high-level support to MOECRT on the development of the guidelines, and PLAN worked with other members to develop practical guidelines in accordance with the local context by drawing on their project implementation experience, including guidelines for the use of community radio (or for providing offline resources). Organizations with specific skills, such as on Special Needs Education (e.g., the Autism Foundation of Indonesia, and the Indonesia Down Syndrome Care Foundation) took responsibility for activities and outputs related to their areas of specialization. For some activities, the region where individual partner organizations would support was also included to reflect the coverage of the cluster across the country. While the Education Cluster covers much of the country, mainly through networks of smaller NGOs, there are some areas that do not receive any support– except those provided by government. Therefore, a key role of the Education Cluster members was to share lessons learned and best practices that could also be used by those 'orphan' districts and provinces. The level of uptake of this guidance varied by district, depending on the resources and capacity needed to take this forward and those available on the ground.

In addition to this, local education departments and teacher associations were part of this "participatory and inclusive process for contextualization of the learning continuity and school reopening guidelines, taking into account different perspectives and needs. This ensured wide acceptance and endorsement of the guidelines[115]."

Vertical coordination between central government and provinces mainly consists of joint policy development and dissemination of policies and guidelines. More effective implementation has been hampered by the weakness of the decentralized system discussed throughout this case study, with the major challenges being: inconsistent allocation of funds to implement national guidelines; a lack of capacity at lower levels to plan, monitor and implement; and weak monitoring systems at all levels, resulting in a lack of consistent, accurate and real-time data for policy makers and implementors to use for adaptive planning and to be held accountable for.

Working with the EdTech sector

The World Bank conducted a survey of 60 EdTech companies in Indonesia as part of a review of the EdTech landscape in Indonesia (2020)[116]. While the research was conducted prior to the COVID-19 pandemic, it showed that most EdTech start-ups in Indonesia target students and focus on junior and senior high schools and higher education. Or in other words, "older, wealthier more urban clients over younger, poorer, more rural ones." The major constraints the EdTech sector has faced in Indonesia have been exacerbated by "overlapping responsibilities between local and central governments on new education tools, along with the public education system's limited capacity and limited incentives to value the potential of EdTech products". The constraints include:

- Supply-side: access to funding, high marginal costs to acquire and retain new customers, and a shortfall of developers and other IT professionals; and
- Demand-side: a low willingness to pay by customers, schools and parents; a lack of digital literacy of education providers; and poor digital infrastructure including limited connectivity and slow download speeds.

COVID-19 has dramatically changed this landscape, with increased digital skills and a much wider acceptance of the use of technology in education. Foremost in the new normal is the increased interaction and strengthened relationships between MOECRT and EdTech players. For example, MOECRT worked with some private firms to offer free programmes and services, including platforms, live teaching channels, and question banks, as well as online training for teachers on the use of digital classrooms and tools for parents to help their children learn at home. This spike in demand for EdTech services has also resulted in additional funding being invested in the Indonesian EdTech sector, and active targeting of the sector by investors.

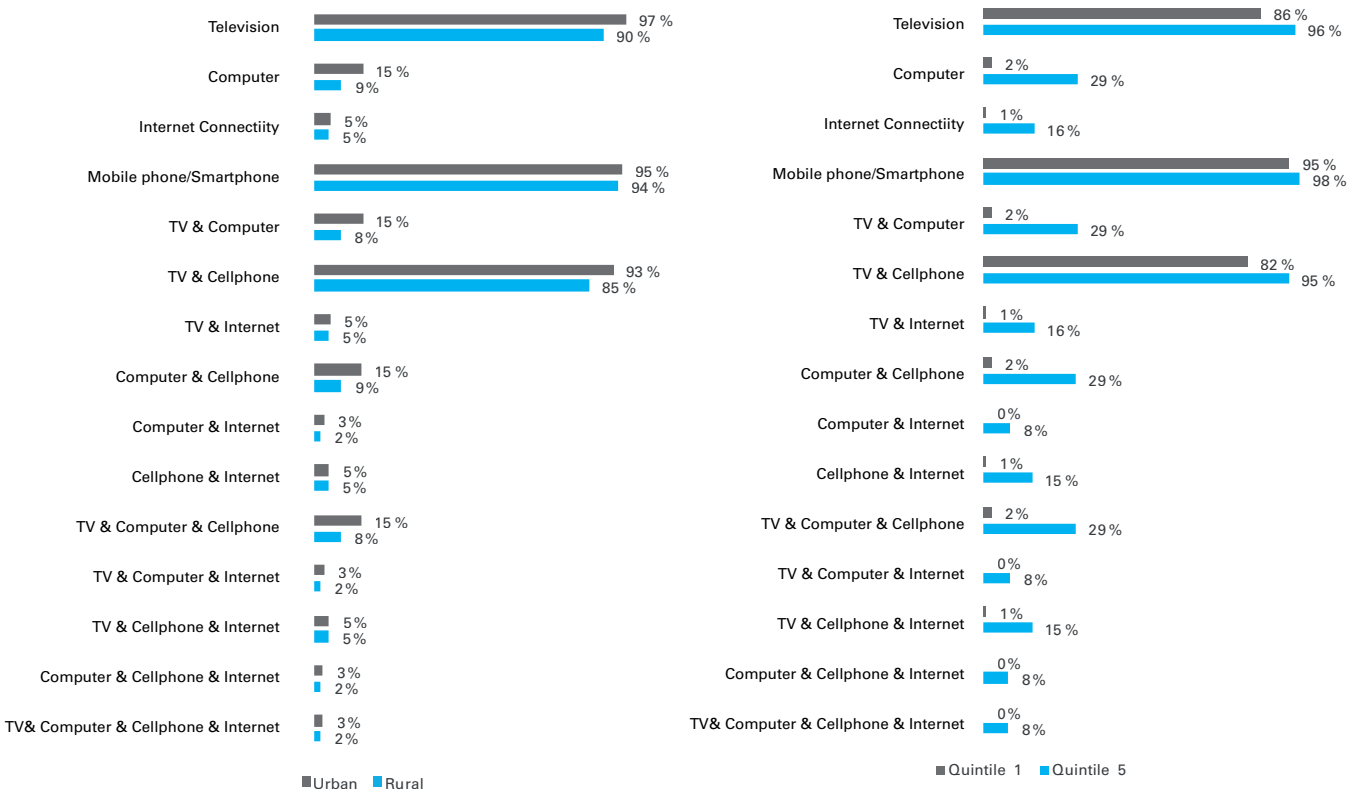
"With an increasing number of students and education stakeholders converting to EdTech platforms and online tools, it is expected that, in the longer term, there will be a permanent behavioural change. This forced adoption during the crisis is expected to act as a catalyst for people to embrace EdTech and support longer-term sector growth[117]."

MOECRT and EdTech providers will need to develop a sustainable costing model going forward that will allow equitable access to and use of technology, especially to more marginalized children, alongside a progressive development model that creates adaptable and high-quality products that meet agreed standards and provide acceptable profits for the EdTech sector.

Access to technology

Figure 10 summarizes households' access to technology for the poorest (Quantile 1) and richest (Quantile 5) and urban and rural households. While most households have a mobile phone/smartphone, internet connectivity figures are very low for both rural and urban households (5 per cent). While 15 per cent of the richest households have access to internet and a cell phone, compared to only 1 per cent of poorest households. Televisions are widely available, but were not widely used for Learning From Home. Extending Learning From Home to TVs could be worth considering going forward.

FIGURE 10 | HOUSEHOLDS' ACCESS TO TECHNOLOGY (SDI FORTHCOMING REPORT)[118]



Improving access to internet

MOECRT has been working closely with the Ministry of Information and Communications to reduce disparity in internet coverage– for example, by expanding networks to remote areas, and by upgrading existing networks to 4G. MOECRT has been supporting a mapping exercise to determine how many schools can be covered by each telecom tower. Even though it is recognized that this will take some time, there is a general consensus on the importance of the mapping exercise. This will help to ensure that online learning can be continued after the pandemic is over. Public private partnerships are already in existence with telecom companies– both government-owned and private– to provide cheap internet provision. In March 2020, online learning providers and service providers offered zero-rated internet to households to access online learning free of charge.

Although some organizations have shared the effectiveness of radio use in remote areas, especially when each student has access to a device, this has not been a medium that has been used widely, with more focus on online and TV provision. This is despite the fact that radio materials have been developed. This could be investigated further to understand why the utilization of a relatively cost-effective and high-penetration medium is so low.

Managing a dynamic situation of online and offline Learning From Home along with class-based teaching

As described in Chapter 2, from 15 July, 2020, schools in green and yellow zones were permitted to open for face-to-face learning if they met the criteria of safe environment, low COVID-19 prevalence and School Management Committee (SMC) acceptance for re-opening. Parents had the choice of whether to send their children back to school or not, and therefore a dual system of continued remote learning and class-based learning took place in many schools. By 22 September, when the interviews took place, 89 per cent of schools were implementing Learning From Home, 7.1 per cent were fully reopen and 11 per cent were relying on a combination of face-to-face and Learning From Home. However, this data was very dynamic as the situation was changing weekly.

The Learning From Home Guidelines include information on how schools should plan for this period, including having a response in place and setting out the type of learning sessions they should be running. This is supported by regional offices, and MOECRT is encouraging the districts to support Learning From Home financially, as well as through capacity building. However, the capability of the regions, and the extent to which they have prioritized support to education during this period, varies widely as a result of differing levels of political will and the focus of regional policy. The central MOECRT has recognized this and the need to support centrally developed guidelines by building a system that has the capacity to respond effectively (for example, through head teacher and teacher training). While MOECRT provides a specific budget for education (including school aid, affirmation aid and training for education offices and schools), more budget support from across all the regions is needed– for example, to print offline materials and provide more school-based training.

To assist teachers to adapt to Learning From Home, MOECRT released an emergency curriculum on 5 August, 2020[119]. The emphasis of the emergency curriculum was that:

- The learning process could be simplified and focus on the essential or foundational competencies, such as literacy and numeracy;
- Schools could simplify the curricula based on their context, and the implementation of the emergency curricula should be based on the student's assessment; and
- Teachers should prioritize activities and sharing of experiences, and content should be inclusive, culturally appropriate and encourage joyful learning.

Each year schools are given targets for learning against curriculum expectations. As at the time of writing, there was no guidance on whether these expectations will remain. This ambiguity has perhaps led teachers to be hesitant in giving up the old curriculum, as described below.

In addition to the emergency curriculum, the Guidelines were intended to streamline the learning process to ease the teachers' burden of developing and delivering both remote and face-to-face teaching, and to make it simpler for students and parents to follow the sessions. For example, MOECRT drafted a weekly activity for the offline learning (with materials for teachers, students and parents), which focused mainly on literacy improvement.

During the research for this case study, interviews were held with a District Education Officer from Supiori in Papua to review the implementation of Learning From Home. Out of 40 primary schools in the district, only 10 can access the internet, while the rest have no access at all. Although the district is in the green category, schools were not yet fully open at the time of the interview, but were operating in shifts and using alternate days. As a result, offline Learning From Home was still being used in all the schools, with teachers vising students' houses.

"Some schools and parents responded well with teacher visits, but some schools haven't, and teachers are exhausted. Students from our 14 middle schools are spread out in different places, and teachers have to travel by speed boat across the sea to visit them. On Monday they distribute the materials, then on Saturday/ Sunday they check everything is ok and pick up homework," said Rafles Ngilamele, Head of the District Education Office, Supiori District, Papua.

The home visits were initially funded by aid from the district, school operational aid, and from MOECRT central funds. They made use of the additional flexibility and changed the use of the school grants to fund travel and printing costs. But by September, all green zone schools were requested to reopen, as the funds were insufficient to continue this system. This meant that when any students were not in school, they were given activities to use to study from home.

Support to marginalized children

MOECRT data showed that 22 million students in poorer households had difficulty accessing Learning From Home. As a result, the government used cross-agency support to help schools and students struggling to conduct distance learning during the COVID-19 pandemic. This includes zero-rated websites from private providers, phone-credit subsidies for about 50 million students, teachers and lecturers, as well as providing mobile phones for students from poor families. The COVID-19 fiscal package also increased and widened existing social assistance schemes to low-income households such as food aid, conditional cash transfers, and electricity subsidies[120].

As mentioned, in Indonesia, schools receive funding from central government through the local government, and the rules around the use of this funding were eased to allow schools more flexibility in addressing their needs. Funding is provided to schools to carry out activities to encourage students to return to school and not to individual children. Funds could be used for children with disabilities to purchase learning materials and media devices.

Children with COVID-19, single parent households, grandparent-led households and disabled children were all recognized as groups that needed additional support. Support was provided by MOSA to the 63,000 children living in orphanages, and the over 1 million students living in Islamic boarding houses. This was led by Social Affairs officers in each region.

Children with disabilities (CWD) were included in the Learning From Home guidelines, which give clear responsibilities to the Heads of Education Units for:

- Ensuring an affordable learning system for all students, including students with disabilities;
- Creating a learning sustainability plan. If the COVID-19 emergency period and Learning From Home activities are extended, it is necessary to coordinate educators to be creative by using teaching materials consisting of […] instructions to adapt learning material for students with disabilities; and
- Distribution of offline learning facilities and teaching and learning materials to students' homes, including educational aids for students with disabilities (for those who do not have access to online learning).

Schools could use their funds to purchase learning materials and internet credit for children with disabilities. However, there is no data available on the extent to which this was done. Government officials, who were interviewed for this case study, felt that there was a lack of creativity in the response for children with disabilities, and that this was an area that lacked support-- either through teacher training, or the provision of suitable materials/ resources for different types of disabilities. It was also felt that CWD were less likely to be given support at home, either by teachers or by parents. This may have been due to a lack of understanding of what support is needed or how this support should be given, or it may have been that parents were pre-occupied with other activities.

A research report[121] conducted by the Indonesian Inclusive Wahana Foundation (2020) found that:

"Students with disabilities experience difficulties following distance learning, and these arose mainly due to challenges of being able to focus on learning in the home environment, and limited access to technology support. This is related to reduced physical support such as access to learning aids, and social support such as teachers' perceptions that students with disabilities cannot participate in online learning -- so there is no need to get the same facilities as other students."

The report discusses the potential of technology to be able to support flexible learning for CWD, but that interaction is critical to the success of this. Students with multiple disabilities faced the most challenges with distance learning, as they had to manage health conditions, mental health issues and adapting to new ways of learning. Where health and social support services were reduced, this caused increases in stress and illness. It was also found that CWD strongly value socialising with their peers, and

that many CWD lacked confidence to learn from home, both of which contributed to their desire to return to face-to-face learning as quickly as possible. Parents' worries on safety centred around the ability of some CWD to follow social distancing on their return to school, as their children already knew hand-washing protocols, but "the majority of parents state that they were ready to send their children back to school".

Worryingly, the SC research found that during Learning From Home, CWD suffered more than those without disabilities:

- CWD were twice as likely to experience violence in their families (31 per cent vs. 16 per cent);
- CWD found it more difficult to comprehend homework (45 per cent vs. 35 per cent); and
- Children with a disabled parent were more likely to find homework difficult than children whose parents did not have a disability (35 per cent vs 27 per cent) and were more likely to say "nobody can help me" (48 per cent vs. 37 per cent). When it was the mother who had the disability, this figure increased to 56 per cent.

Considering the intersectionality of gender and disability, girls with a disability suffered more than incapacitated boys:

"More parents were not able to help girls with a disability (42 per cent) than boys with a disability (34 per cent). Parents of a daughter with a disability were three times more unsure that their children would return to school (16 per cent vs. 6 per cent) after the pandemic[122]"

Mother tongue: All learning materials developed by MOECRT were delivered in Indonesian (Bahasa), but teachers were encouraged to develop their own materials in their local language. This can be seen on the teachers' sharing platform as many materials, especially at kindergarten level, are being delivered in local languages. COVID-19 health communication messages were translated into multiple local languages, and 15,000 volunteers were mobilized under MOECRT in April 2020 to educate vulnerable groups on health protocol and accessing learning.

From the interview with the District Education Officer, his observations were that the most marginalized students were falling behind in their learning, as they made no progress in reading and writing, and "the limited time with the teacher and parents was not helping. There will be a lot of children who won't achieve the literacy target. We have tried to allocate more teacher time to those children so that they can catch up with their friends, but parents are not engaging, and we haven't found a way for those children to be assisted. We have seen some progress as a result of a UNICEF-funded campaign to encourage parents to help their children to study. In some locations there is a slight improvement. With adult literacy in our district at 80 per cent to 90 per cent, it's more a case of awareness than lack of ability to help."

However, the ISEAS – Yusof Ishak Institute study found that:

"The level of support that parents provide depends significantly on the family's economic conditions and the parents' education level. Children from higher socio-economic status families with highly educated parents appear to be in the best position to adapt to studying from home. Highly educated parents are found to be most able to guide their children in learning from home and to accommodate the technological, logistical, and psychosocial needs of adapting to learning from a distance."

National statistics show that in 2019, the average adult attainment remained relatively low at 8.75 years of education, and World Bank education statistics show that only 38 per cent of Indonesian adults have completed 12 years of education[123]. Therefore, many students, more likely marginalized ones, have parents who did not complete secondary school, and while they may be able to read and write, they may not have the knowledge and skills needed to support their children's learning.

UNICEF has been supporting the implementation of the community-based information system, which is being used by villages to monitor OOSC. The aim is to identify which children are out of school, and whether it is due to COVID-19 or not. UNICEF is also supporting MOECRT on the Back to Learn not Back to School campaign, which uses social media to encourage students to engage with learning– either face-to-face, or using Learning From Home.

Quality of response

MOECRT conducted two studies on the Learning From Home implementation– one after a month of Learning From Home roll-out and one in August. The results showed that within those three months, some teachers had begun to adapt well to the use of technology, using different and multiple types and being more creative in their pedagogy and assignments; or example, moving from the use of WhatsApp to the use of Google Classroom. By August 2020, some teachers were seen to be using projects and diagnostic classroom processes, showing how teachers were adapting to the learning methods and to online teaching. However, large disparities existed in rural (3T)

areas with only 4 per cent using video conferencing. In the urban (non-3T) areas, 80 per cent were using social media by August, compared to 50 per cent in the rural (3T) areas[124].

Pupil-teacher interaction

The UNICEF/MOECRT rapid assessment found that since the school closed and the learning from home began, 47 per cent of respondents only had an average of one to two hours of time spent studying per day, and 21 per cent less than one hour. The research conducted by ISEAS – Yusof Ishak Institute[125] provides a more critical overview of quality of delivery, and highlights the difficulties met by teachers to adapt the curriculum and the lack of interaction between teachers and students. Especially teachers in less developed or remote areas who tended not to engage with their students, nor provide tasks/homework to students. In their research, ISEAS – Yusof Ishak Institute found that only 50 per cent of teachers were able to adapt the curriculum based on students' learning levels, and as a result 45 per cent were still following textbook and curriculum expectations. ISEAS – Yusof Ishak Institute study found some positives; 60 per cent to 70 per cent of teachers were interacting directly with the students, or through the parents. However, 10 per cent of teachers were only providing tasks or homework without interacting with students, or providing feedback, while 20 per cent to 30 per cent of teachers did not engage with the students.

Teacher preparedness

Teacher readiness to apply distance learning is clearly a challenge. Among the 3 million primary and secondary school teachers nationwide, more than half are not certified. Indonesian teachers may also be ill-equipped to deliver schooling from home. The World Bank (2016) estimates that only 5 per cent of primary school teachers in Indonesia have sufficient teaching skills to increase their students' learning levels[126].

The practice of teaching to the level of the students becomes even more critical when they are learning from home. During school closure, communication and teaching become much harder. A curriculum that is too dense or progresses too quickly risks permanently leaving students behind. The response by the government to simplify the curriculum and form the emergency curriculum is therefore very relevant. But if teachers lack the capacity to engage with and implement this, levels of learning, which were already below expectation prior to COVID-19, will fall further and learning gaps will continue to expand.

Support to teachers

Training and support for teachers has been provided through platforms specifically developed for teachers to share materials and ideas. This has been supplemented by webinars with Google, training organized by teacher professional organizations, teaching guides and books. In addition, Education Cluster members shared offline learning materials to enable these resources to be available for all schools across Indonesia, and not just schools they were supporting and organizing online training sessions for. But the disadvantage of many of these trainings and support networks is that they require internet access, and a knowledge of using online devices and apps. This is one of the reasons why teachers in the left-behind areas are progressing much more slowly than those who have access to electricity and the internet, and are already used to using devices in their personal lives.

Teachers are of two types in Indonesia: non-permanent staff who were hired without specific qualifications, and full-time qualified teachers. The first category are paid based on classroom attendance, while teachers of the second category had their pay cut (which may have impacted greatly on their involvement in Learning From Home modalities). The ISEAS – Yusof Ishak Institute research review describes two types of support that teachers have been receiving in the field to implement learning from home. Academic support was noted as minimal, which will be a crucial factor influencing the quality of Learning From Home delivery, especially considering the lack of formal training of many teachers. Operational support to teachers has been made possible as MOECRT removed some restrictions, enabling more flexible use of education funds for schools. The study found that:

- 20 per cent of teachers receive both operational support and academic support. Instances of the former include allowances to purchase internet data. The latter includes training and new guidebooks, among others;
- 60 per cent to 70 per cent of teachers only receive operational support; and
- 20 per cent of teachers have not received any (additional) support since the closure of schools.

This gap in academic support has also been identified by MOECRT, who have noted the lack of localized trainings being organized by regional offices of education, especially at the school level. Where district or school-based trainings are taking place, they are mainly funded and supported by local partners such as international and local NGOs. In addition, school-based support systems do not exist,

so head teachers and teachers are in general left to implement guidelines on their own, with little mentoring from district education offices, or opportunities to share learning. As a result, feedback from the district level was more in line with the ISEAS – Yusof Ishak Institute study, and showed that "teachers are not doing the interaction with students well. There are still many questions about how to implement the emergency curriculum designed by government. Teachers prefer the old curriculum, or their own simplified version of it[127]."

This evidence is feeding into discussions within MOECRT on the type of pre-service and in-service training that should be provided to teachers in Indonesia going forward. Although MOECRT has provided training for teachers on facing emergency situations for years from ECE to higher education, coverage is still limited, and the focus has been on environmental disasters such as the devastating 2004 Indian Ocean earthquake and tsunami, and needs to be revised in light of the specific challenges of a rapidly spreading pandemic like COVID-19. The approach to teacher training also needs to shift with the increased use of technology and the emerging vision for education being created, and needs to identify and support the new skills needed to deliver this vision.

Support for implementing partners and stakeholders

Support to parents

Parents' ability to support their children learning from home varied widely. There were reports of violence (both verbal and physical) against children by parents while trying to assist in Learning From Home, and sadly one child died as a result[128]. Children were also found to be assisting their parents in their livelihood and were being economically exploited. MOECRT worked with the Ministry of Women and Child Protection (MOWCP) to conduct research into the extent of this, so that they could develop mitigation strategies. The aim therefore was to get schools open as soon as safely possible; one of the reasons for extending school opening to the yellow zones, especially in the remote areas.

"This pandemic forced parents to take the teacher's role by having students learning from home -- they realize it's not easy to be a teacher. To teach one child is so difficult; imagine teaching 20 students[129]"

Support to schools and teachers

At the district and school level, there was a great deal of confusion about what to do once schools were closed, and as mentioned earlier, no structured support was given to teachers other than what was available online.

"In March and April, with the pandemic, we were confused and didn't know what to do. We closed schools for two weeks, summoned all head teachers to discuss a plan, and agreed that teachers would prepare materials and distribute them to students' houses. Teachers prepared learning materials and homework. They printed materials at school. What is my assessment of teacher capacity? It needs some improvement, as there has been no training for some time. To be honest, the capacity is low to adapt. I hope that by doing the process they can deliver something, although it may not match the curriculum; most are unable to do that[130]."

It became clear quite early on that more was needed to support the schools and teachers. No training was being provided to the teachers, so in the district that took part in the case study interview, supervisors were recruited and assigned to schools to support the teachers. These were mainly former head teachers who are still active.

"I am trying to ensure that by building a team of supervisors the teachers are continuously assisted. There are no trainings where we can invite resource people, so we hope our supervisors can continuously assist the schools. Our supervisors started from last week -- they assist in schools immediately -- teams are going to schools from village-to-village to make sure the teachers are in place, and talk to parents so that they can assist the children. On Friday we'll have an evaluation to see how it's going. Supervisors will then present what assistance the teachers need going forward. We need to expedite the teachers to immediately increase their capacity in terms of IT. Teachers are still using the old method. There are some improvements we want to do with IT and learning."

In rural areas with limited internet connection and student access to devices, and a lack of teacher capacity, trying to maintain children's engagement in learning was incredibly difficult.

"If our teachers had good capacity then it would hinder us from the confusion. If our area had sufficient internet and all students have access to smart phones, there wouldn't be confusion."

Partnerships with other stakeholders

Donors were reportedly prioritising the health response in Indonesia, while working with Education Cluster members to pivot existing programmes to support the implementation of Learning From Home, using existing funds[131]. The activities carried out by the various supporting agencies were all coordinated with clear roles/responsibilities and division of labour to maximize coverage and create synergy. This was done in consultation with MOECRT and others, and is set out in the Education Sector COVID-19 Response Plan. For example, SC used programme funds to print and distribute learning materials developed by MOECRT, and supplementary materials such as story books and writing materials for ECE students. PLAN conducted research on the challenges teachers and learners were facing, and developed training and materials such as posters to support teacher development. World Vision carried out similar activities, and also developed radio programmes in Papua (as 86 per cent of learners have no internet), provided literacy materials and games through mobile phones, and trained parents on parenting, MHPSS and how to support learning at home. World Vision also created some of Learning From Home guidance for disabled children. CDE collated information of support provided from their 21 members, which covers almost all provinces in the country.

Local governments are becoming more open to collaboration with NGOs, due to this level of support, and in NGO project areas, rely on NGOs for a faster and more contextualized response than central government is able to provide. The flip side of this is that in the few provinces where NGOs are not active, little support is provided to make Learning From Home implementation effective. As mentioned earlier, weekly data is only being submitted by about half of all schools in the country, and this problem is more acute in regions and districts where the cluster members are not active. This regular information is important in an emergency response as the response demands flexibility and adaptability. Without sufficient information being communicated up and down the delivery chain, adjustments to the response, additional support, etc., can be slow, and this tends to affect areas where institutional capacity is weakest. NGOs have been trying to support central and regional government by providing feedback and sharing best practice. The Education Cluster members acknowledged the central government for their openness.

"We are lucky that the new management of MOECRT (appointed a year ago) are open-minded and used to distance learning -- they are reaching out to NGOs to support them to solve education problems in Indonesia. Government provides and NGOs provide. The strength of NGO advocacy will determine whether local government will continue to implement their approach. The challenge is funding; NGOs can only focus on their own project areas, there are no new donors and currently government doesn't fund NGOs."

However, the government does have plans in place to fund NGOs to scale up good practices. This was supposed to have commenced in July, but was postponed to January 2021, and was initially set to last for two years. As a result of constraints in finding funding for scale up, NGOs help local governments to implement using their own government-funding, and advocate for this to increase.

Participation and learning

Participation

Access to learning from home: Figures on participation in Learning From Home vary widely. The UNICEF study found that 88 per cent of primary students and 98 per cent of respondents studying at a higher level of education (secondary, TVET) participated in Learning From Home. However, WVI research found 68 per cent of children had access to online and offline learning through various means, from using technology to home visits. Meanwhile, the other 32 per cent did not get any kind of learning programme due to the lack of capacity and supporting facilities from the schools. It is likely that these differences in data are due to the sample population for the two studies, which were very different-- the UNICEF study, as mentioned above, was mainly urban older children, while the WVI survey targeted poor, more rural children, with an average age of 12 years.

However, all four research studies concluded that children from less privileged backgrounds spent fewer hours studying, had less access to learning resources, and received lower quality support from teachers. This will only widen the learning divide and increase inequalities as more marginalized children experience more learning loss, and take longer to recover, if ever.

Feedback from parents who participated in the UNICEF study showed that children in urban (non-3T) areas tend to study for longer each day, which will likely widen learning inequalities, and pre-primary and primary students tend to study less than secondary students, which is expected.

For students who have access to an online learning system, they were constrained by the high cost of the internet and the availability of gadgets in the family. Children must take turns using devices if there were more than one school-aged child in the family[132]. The UNICEF study found that 28 per cent of participants received an internet package,

and 27 per cent were provided with an online learning application. Students in urban (non-3T) areas were far more likely to receive an internet package (30 per cent vs. 6 per cent), or an online learning application (28 per cent vs. 18 per cent) than rural (3T) students.

Poor internet connection is a major obstacle for children to access Learning From Home, according to 35 per cent of UNICEF respondents, and it is more accentuated for girls (37 per cent) and children in urban (non-3T) areas. Though the latter more often receive internet packages from their schools.

Medium of learning from home: The UNICEF study found that 81 per cent of respondents were studying online, 15 per cent were using books, and very few accessing legacy media such as TV (2 per cent) and radio (1 per cent). However, the sample for this study were mainly older, urban students, and these figures are not representative for the whole country. For children who have access to online learning systems, 20 per cent use WhatsApp to communicate with teachers, and 10 per cent utilize more interactive applications such as Zoom, Skype, and Google Meet. Moreover, there are also some children using more conventional media such as attending the learning programmes initiated by MOECRT through television[133]. In some places that used the offline method-- mainly remote or rural areas-- children from a neighbourhood were brought together in small study groups. This was a challenge due to the difference in grade level and lack of resources such as blackboards, resulting in both teachers and students experiencing difficulties in the learning process[134].

Learning materials: Almost eight out of 10 (79 per cent) child respondents said that they were unable to access adequate learning materials (SC, 2020). One out of five (20 per cent) parents found it difficult to buy learning materials for their children[135]. Figure 11 shows data from the WVI research (2020). Both the WVI and UNICEF studies found, not unsurprisingly, that children in rural areas were more likely to express the need for textbooks (32 per cent, UNICEF) compared to children in urban areas (13 per cent, UNICEF), who were more likely to prioritize data for internet use.

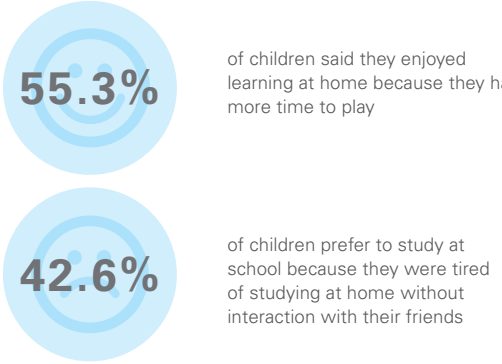
FIGURE 11 | THE SUPPORT CHILDREN NEED FOR LEARNING FROM HOME[136]

Well-being and protection

Safety: 91 per cent of UNICEF respondents received information about COVID-19 and its prevention through Learning From Home content. Distance learning systems allow children to learn on their own without parental supervision. This raised another issue, especially for children with internet access, as they become more vulnerable to exposure to pornographic or other harmful content. The survey revealed only 34 per cent of parents regularly monitor their children when using gadgets and accessing the internet[137].

Psychosocial issues: The view from the district level was that children become more frustrated during school closures, causing more boredom and stress when they are not able to see and interact with their teachers and friends for months. This is backed up by the UNICEF/MOECRT rapid assessment, which found that 66 per cent of respondents felt unhappy studying from home. The WVI study showed a more balanced view of children (Figure 12).

FIGURE 12 | CHILDREN'S PREFERENCES FOR LEARNING FROM HOME VS. STUDYING AT SCHOOL[138]



"So far there is no report of violence to children, but students' conditions become more frustrated when school is closed. According to our monitoring of farmers' children, parents take the children to farm, look for fish. I'm not sure if the activity forces kids to work, but they enjoy it[139]."

This is supported by the research results set out below.

According to the SC survey[140], "Parents generally said that the distant learning process and result qualities were very limited during the pandemic." The UNICEF/MOECRT rapid assessment found that a lack of direct interaction with teachers, and a lack of concentration, were the main obstacles for parents in assisting children to learn from home.

"At first, the children were happy with distance learning. At 8am they contacted their teacher to ask for assignments to do. But now they are tired and bored, and they miss school and their friends." (Anis, Principal, Simokerto -- Jawa Timur)[141]

The WVI 2020 survey also found that 15 per cent of children felt insecure studying from home and 35 per cent of children worried about missing the lesson.

This was borne out in the MOECRT/UNICEF study, which found that the majority of students (66 per cent) felt unhappy studying at home. It is more accentuated for girls (74 per cent) and in urban (non-3T) areas (72 per cent). Children also reported facing difficulties understanding the materials and content, lack of concentration, boredom and being alone negatively affecting well-being and happiness.

Children also missed their friends (20 per cent), worried about their parents' income and lack of food (10 per cent), felt insecure (15 per cent) and were afraid of catching COVID-19 (34 per cent)[142]. When children are worried and stressed, they are less likely to learn, and the SC study found that "the longer the school closure had lasted, the more children and parents experienced negative feelings." According to SC research, 82 per cent of parents reported that their children showed negative feelings and experience psychosocial pressure, but that direct and/or virtual interaction reduced these negative feelings. More than half of all children who did not interact tended to be more unhappy (57 per cent), more worried (54 per cent) and more unsafe (58 per cent). When children interacted, these figures dropped to 15 per cent to 17 per cent if they met face to face, and 5 per cent to 6 per cent if they virtually interacted as well.

Learning

Measuring learning outcomes during school closures and while children are learning from home is very challenging. While individual teachers can assess students' levels of participation in completing and submitting assignments, collating a regional or national picture can be difficult, as the use of standardized tests are only helpful when teachers are using a consistent curriculum. In Indonesia, teachers were "forbidden to force curriculum completion, and should focus on life skills education[143]". Instead, MOECRT has discussed plans to implement the National Assessment (AN) to calculate the learning loss due to the pandemic, which is planned for September 2021. The AN consists of a Minimum Competency Assessment, Character Survey and Learning Environment Survey. The purpose of conducting this would be two-fold: first, it would provide data for the government to identify schools for assistance in accordance with their needs; and second, it would provide useful information to "help schools improve the performance of their education services for the better[144]".

This section discusses the findings of the Education Cluster surveys.

How much did children learn at home?

Only 1 out 10 (9 per cent) parents said their children learned as much as they had learned at school; 7 out of 10 (70 per cent) parents said their children learned less, and the children thought so, too (73 per cent). Positively, in Indonesia, only 1 per cent of children said that they learned nothing at all[145].

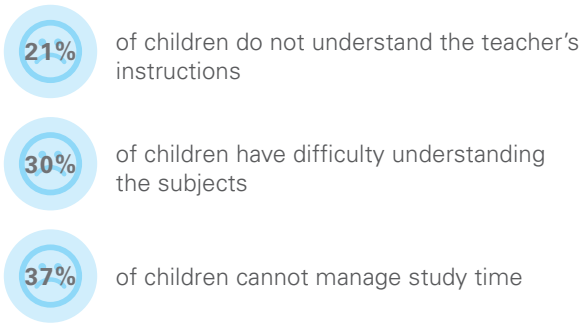
How much did children understand what was taught?

The SC study found that almost one out of two (45 per cent) children experienced difficulties in understanding homework teachers assigned. This figure was higher for children whose parents have a disability (35 per cent), compared to the parents without a disability (27 per cent), as well as poor families (30 per cent) and those who have lost more than half of their incomes (30 per cent).

How easy did children find learning from home?

Children, parents and teachers faced challenges in adjusting to distance learning methods. Children have dificulty learning without full assistance from adults. Besides, the lack of interactive learning between teachers and students made the teaching and learning process rigid[146]. One in four (26 per cent) children found it difficult to learn due to 'laziness' (or perhaps lack of skills for self-motivation and resilience), especially boys and those who live in rural areas (SC, 2020). Figure 13 shows data from the WVI study on the challenges faced by children as they adapted to independent learning.

FIGURE 13 | CHALLENGES FACED ADJUSTING TO INDEPENDENT LEARNING[147]



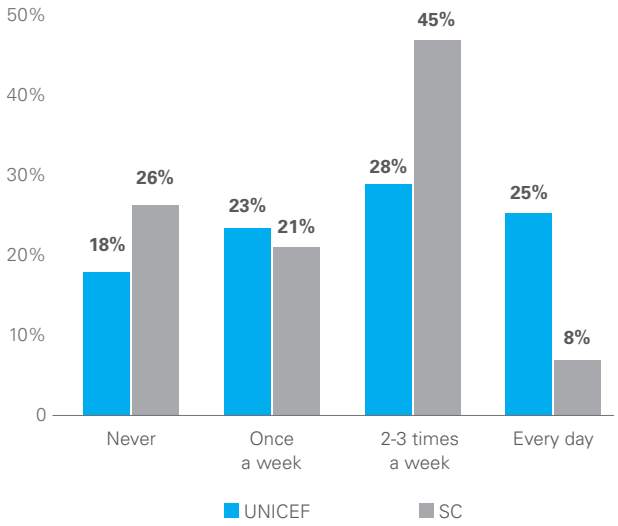
To what extent did schools support children?

The UNICEF/MOECRT survey (which focused mainly on urban and older children) found that more parents in rural (3T) areas mentioned that the school is not providing any support (25 per cent) than in the urban (non-3T) areas (13 per cent), and more girls (30 per cent) than boys (27 per cent) reported that their school did not provide any support. The support that students said was provided included an internet package (28 per cent), providing access to online learning applications (27 per cent), lending a book (11 per cent) and lending a laptop/tablet (1 per cent). Less than half of all parents felt that schools were providing learning guidance (40 per cent), 14 per cent said schools provided learning material references, 12 per cent the internet, and less than one in 10 felt that teachers provided consultation (9 per cent).

To what extent did parents and teachers interact and monitor student progress?

The parents who participated in the UNICEF study identified a lack of direct interaction with teachers (Figure 14) and a lack of concentration by students as the main challenges, both of which were more accentuated in the rural (3T) areas. Only 2 per cent of parents were communicating with teachers. Similarly, the SC report showed that 26 per cent of parents said teachers did not monitor their children at all, 8 per cent reported daily monitoring, and 21 per cent reported children being monitored only once a week. Global figures from the SC report show that 66 per cent of parents said teachers did not monitor children at all during remote learning, showing that while the figure is high in Indonesia, compared to other countries, Indonesian teachers are doing a good job.

FIGURE 14 | COMMUNICATION BETWEEN STUDENTS AND TEACHERS (UNICEF AND SC, 2020)



The SC study was carried out across 46 countries, including in Asia and the Pacific, Africa, Latin America and the Caribbean, the Middle East, Eastern Europe and North America. Globally, the SC report found that parents who said that teachers did not monitor their children were three times more likely to be unable to help their children learning at home compared to others, and parents whose children were not able to access learning materials were five times more unable to help their children's learning (48 per cent vs. 9 per cent). This provides useful information going forward on ensuring that teachers are able to monitor children's participation in remote learning, and share this feedback with parents. All children should have access to the learning materials to be used at home.

To what extent did parents support students?

The UNICEF/MOECRT study showed that parents gave slightly more support to their sons than their daughters, and parents in more urban (non 3T) areas were more ready to support their children than parents in urban (3T) areas (Figure 16). Worryingly (although the sample is small), no parents of special needs children communicated with the teacher or assisted their children to do work (Figure 16). Figure 17 also shows that the older the children are, the more parents motivate them to do work, probably because of the high stakes examinations. Just over half of parents who responded support pre-primary and primary aged students by accompanying them to learn, which is necessary for younger children learning from home, but that the proportion of parents who assisted children with their work decreased from junior secondary (20 per cent) to primary (17 per cent) and to pre-primary (14 per cent). Communication with teachers was low across these three levels, with no parents of pre-primary children communicating with teachers, and the highest figure being for senior secondary school (at 5 per cent).

FIGURE 15 | PARENTAL SUPPORT BY CHILDREN'S GENDER AND 3T AREA STATUS

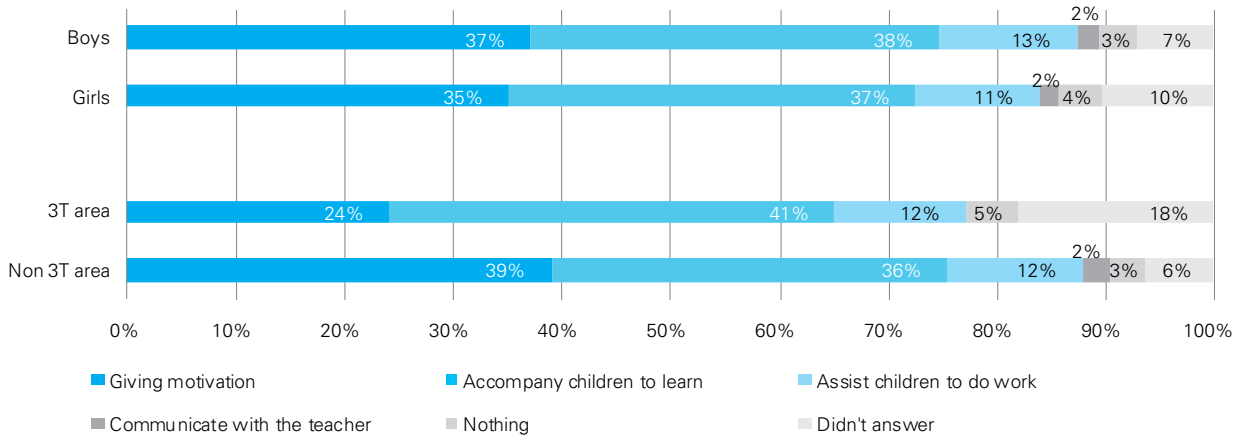
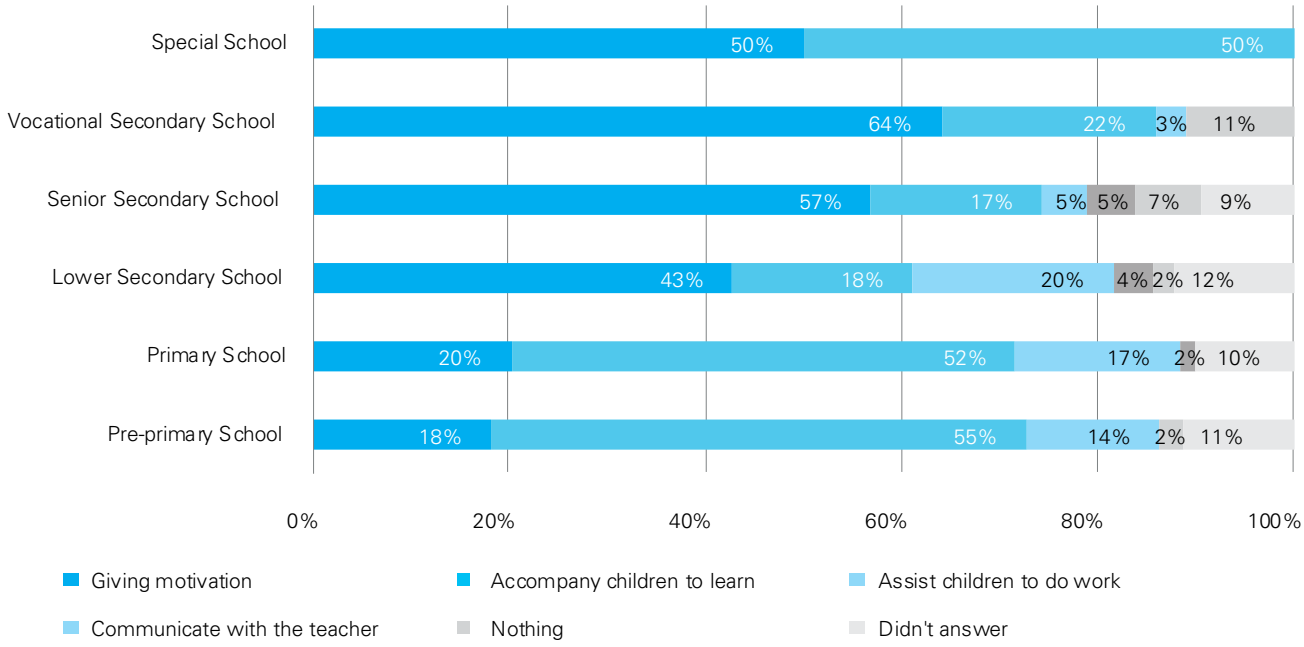


FIGURE 16 | PARENTAL SUPPORT BY EDUCATION LEVEL OF CHILDREN



3.3. Analysing the response

There are common misconceptions that exist around emergency remote teaching (ERT)[148]. First, that a "comparison with face-to-face teaching is a useful evaluation", and second, that "the primary objective of ERT is to re-create a robust educational ecosystem". The primary objective instead is to:

> "Provide temporary access to instruction and instructional supports in a manner that is quick to set up, and is reliably available during an emergency or crisis … Online courses created in this way should not be mistaken for long-term solutions, but accepted as a temporary solution to an immediate problem."

These quotes come from an article advising higher education institutions in the United States of America on setting clear expectations for establishing remote teaching systems. But this advice is applicable for any education system in the world, as countries try to quickly respond to the unprecedented global pandemic in the most effective ways possible.

Indonesia, through Learning From Home, therefore demonstrated a great example of a fast response to school closures and how mobilization of and collaboration with partners (public-private, cross-sectoral, donor community and civil society) can strengthen this response. In addition, Indonesia's teachers have, where feasible, shown the motivation and ability to adjust to dramatic changes to their teaching, brought about by Learning From Home.

The silver lining to this, regardless of the quality of content and the challenges of implementation, has been the introduction and acceptance of technology in education.

Analysis against international guidelines

The OECD carried out an assessment of education needs and emerging responses during the pandemic in 98 countries. Based on this, they created a checklist to guide education leaders in developing their response (Table 8).

TABLE 8 | OECD CHECKLIST FOR EDUCATION RESPONSES TO COVID-19

WHAT NEEDS TO BE DONE	WAS THIS DONE?
1. Define the principles that will guide the strategy and re-prioritize curriculum goals given the reality that the mechanisms of delivery are disrupted. Communicate this effectively to all stakeholders through multiple channels. Define what should be learned during the period of social distancing, how this will be assessed, and how children will be promoted or graduate.	✓
2. Identify means of education delivery and look for ways to provide internet, materials, and devices to those that do not have, and exploring partnerships with the private sector and the community. Information on safe use of internet, devices and screen time should be shared. Consider how TV, radio or learning packets could be used-- partner with private sector and community organizations.	✓
3. Identify the feasibility of pursuing options to recover learning time once the social distancing period is over. For example, an intensive review period during the break prior to the start of the new academic year.	✓
4. Schools should be supported to develop a plan for continuity of operations and best practices should be shared. Support networks should be established to share and learn. School leaders are provided with the financial, logistical, technical and moral support they need.	✓
5. Clearly define teachers' roles and responsibilities to support students' learning-- directly or through self-learning-- and provide opportunities for communication and collaboration among students. Support teachers and parents with professional development and collaboration that increase teacher autonomy.	✓
6. Communicate with teachers, students and parents about expectations and provide tools and suggestions.	✓
7. Ensure adequate support for the most vulnerable students and families during the implementation of the alternative education plan. Alternative ways to ensure children receive nutritious food or other social services during school closures should be planned for. A system for daily check-ins with each student, teacher and school staff should be developed.	✓

TABLE 9 | GLOBAL EMERGING RECOMMENDATIONS ON COVID-19 RESPONSES COMPARED TO INDONESIA

GLOBAL RECOMMENDATION	INDONESIA'S RESPONSE
1. Given the digital divide, **use multiple delivery channels for remote learning** e.g., digital and non-digital (such as TV, radio and take-home packages).	Indonesia did use a variety of delivery channels although uptake on TV and radio was quite low. In rural and remote areas, printed materials were supplemented by home visits from teachers.
2. **Strengthen support to the teachers, parents and caregivers** delivering remote learning as access to content is good, but support is needed for effective learning at home, MHPSS and safe use of technology.	Indonesia provided support, but as this was mainly delivered through online channels, the design of this support excluded those who needed it most. This resulted in more marginalized communities relying on skills and knowledge that already existed within their school, which was, in the main, insufficient to adapt the curriculum and understand how to teach and support learning remotely.
3. **Gather feedback and improve monitoring of reach and quality** -- monitoring the use of digital channels is easier (using simple tools like SMS, U-report, messaging app, etc.), but understanding the take-up and effectiveness of non-digital channels that can reach more vulnerable children remains a challenge, and requires innovative solutions.	Several studies were conducted in Indonesia and the main findings have been shared with the government. Monitoring systems are in place to measure school re-opening, but have not reached the level of monitoring individual teachers' and children's engagement in learning from home.

Indonesia ticked all the boxes on the list. The major issue is the extent to which the responses reached all teachers, parents and children across Indonesia, and what can be done further going forward to strengthen this.

UNICEF conducted a study to identify emerging lessons from COVID-19 education responses in 127 countries[149]. The key findings and recommendations are included in Table 9, along with an assessment of Indonesia's response against each of the recommendations. As can be seen, on the surface, Indonesia applied the recommendations, but due to the challenges of decentralization, the depth to which these were implemented were limited by the implementation capacity of the regions and schools, and the levels of additional funding allocated for application across all the regions.

Government's self-analysis

During interviews, MOECRT staff were asked what advice they would give other countries responding to the education needs caused by the pandemic, and wanting to introduce a similar remote learning programme at scale. Their responses are below:

- **Have a clear vision of the outcomes you want to achieve.** The priority should be that children learn safely and securely. Formulate the learning objective to be much more contextual in nature, not just academic. It should involve learning that children can engage with in their surroundings at home, and should be an enjoyable learning process for the student.
- **Clarify the role of parents and provide support**. Parents need to understand that they are assisting children in studying, not taking over the teachers' role. They are to assist the children, help them with materials, etc. When parents try to take the teacher's role, they get frustrated when the children do not respond, which may result in emotional or physical abuse. Parents can be sterner than teachers in school. The focus should be on maintaining the spirit of studying (growth mindset, resilience), not demanding the achievement of the curriculum target. Teachers need to be supported and prepared, so they know how to communicate with parents on what children should be learning. Teachers can support parents through their interface, and the government should support teachers on how to manage this remote environment.
- **Think about how you develop policy and make sure they are implementable.** Policies should be evidence-based to achieve desired results, and lessons learned from similar situations should be taken into account, as well as advice from global partnerships. Collaboration and consultation are essential in policy drafting, particularly with non-governmental partners and with government partners from different levels. This ensures that best practices and lessons learned by others are analysed and taken into account, and the diversity of implementation contexts and challenges can also be considered. Collaboration is also essential in policy and programme implementation on the ground. With this, Learning From Home implementation was accelerated and better quality and feedback (some from studies and surveys) fed back into implementation. There needs to be sufficient implementation capacity-- head teachers, teachers and parents need to have capacity to support online learning and provide solutions if there is an issue. For example, provide clear guidelines to improve teachers' skills.
- **Use different methods to support capacity development**. Teachers require opportunities to share and address their issues and support needs with regards to policy or implementation. There was no assistance for teachers on the ground-- only at provincial level. A hotline where teachers can get support and solutions would have been useful. This could focus on how to engage with marginalized groups that need specific support, e.g., disabled children, poor households or COVID-19-affected households.

Comparing this self-reflection with the analysis of the response, shows that there are a lot of similarities in the gaps identified, but also that the crux of the challenges hinge on the disparity between the intentions at the national level, and the realities of the implementation on the ground. In a rapidly changing situation such as that brought about by COVID-19, there was little evidence available initially to drive policy. Policy makers need to base their decisions on what works, as well as follow up to analyse the depth and quality of the response. This means that information needs to flow up from the implementation level to those making policy decisions. As shown in Table 9, qualitative data was available to decision makers, but real-time quantitative data on actual levels of implementation was not, which meant that policies were not able to adapt quickly and respond to implementation challenges.

Summary of analysis

Children in Indonesia were not learning adequately prior to COVID-19 and Learning From Home has not changed this situation. But it was not meant to. It was intended to keep children safe and engaged. Learning From Home was massively ambitious by design and by need, due to the challenging context of Indonesia's geography and digital networks. The use of technology has been creative and the level of collaboration and commitment across

all stakeholders highly commendable. Undoubtedly, the well-being of the majority of children is better as a result of Learning From Home than if children had been left without any support at home, and teachers have in many cases risen to the challenge and shown their commitment to the kids they teach.

Learning From Home has changed the way education is viewed in Indonesia and has opened up opportunities for innovation and transformation of how teachers teach, how children learn, and how technology can support teaching and learning. It has also redefined the role of teachers, parents and caregivers and children in education and learning. Bearing in mind that it was an emergency response and not a carefully thought-out, long-term solution, it has also raised awareness of where the gaps are, which will help the country when it begins to plan for how to build back better. It has:

1. Exposed weaknesses in the implementation framework for education, from decentralization of priorities and funding, to a lack of school and teacher support mechanisms and child-level monitoring systems;
2. Highlighted the lack of preparedness of teachers and schools for the use of technology, including the use of devices and software, and knowledge of the pedagogy of remote learning and assessment. It has also highlighted the need for greater understanding by teachers of how children learn and how to adapt the curriculum to emerging needs, including children with special needs-- such as those with disabilities;
3. Emphasized the need for students to be ready to learn online, and to have digital skills, access and ability to engage with remote learning. Some children have begun to develop independent learning skills, but these need to be planned for in a consistent and structured way. There is also a need for students to acquire multiple skills and competences usually developed through face-to-face interactions and collaborative activities organized by teachers in schools, or even outside of schools, through extra-curricular activities. Those skills include talent for active citizenship, personal empowerment and employability in addition to skills for learning. Children need to be able to collaborate remotely in order to reduce feelings of loneliness, and to develop teambuilding and communication skills that are necessary in the 21st century;
4. Highlighted the existing and growing inequalities in education provision and outcomes for marginalized children. While it is likely that this inequality has increased as a result of Learning From Home, it is also likely that they would have increased in the absence of Learning From Home, and more children may not have come back to school when they re-opened. The World Bank's paper on the effects of COVID-19 on learning and earning (2020) indicates that during this crisis, "the largest gains in learning are likely from improved quality of distance education", and cites the need to prioritize the quality of Learning From Home, while at the same time expanding access to those who do not yet have it. However, because of already existing inequalities, internet-based learning cannot be the only distance learning modality for a blended education model, because it would not reach the most marginalized population in the short-term. Although EdTech solutions are the future of education and learning, to be able to respond to future shocks that include school closures, it is still necessary for the government to further develop low and no-tech alternative modalities of reaching children with education. These include radio, TV, printed materials, and mobile phones, at least in the shorter term; and
5. Shown the immediate need for Indonesia to invest in digital infrastructure and the EdTech sector in order to begin to address some of the divides and inequalities of provision and support. It has also raised the question of availability, adequacy, quality and relevance of EdTech products available in Indonesia.

Closing schools and re-opening them only when they met safety criteria significantly reduced the risks of children (and teachers) contracting COVID-19, and has undoubtedly saved lives. The lockdown has come at a cost to the long-term well-being of children as health interventions and vaccinations were put on hold, school feeding was suspended, child marriages increased, and the economic crisis has resulted in many children not eating a balanced diet, or often enough. Good parenting and child rearing advice disseminated through community health workers has been disrupted, too. Indonesia has invested a great deal in social protection measures to reduce these effects, and an ongoing remedial response in health and social services could be sufficient to prevent long-term implications on children's learning, if it targeted towards those who need it most.

04

Lessons learned

> Asia, with its huge population and many overcrowded cities, is potentially very vulnerable to COVID-19 which spreads through close contact with infected people.

As discussed in the previous sections, the challenge facing the future-learning of children in Indonesia is complex:

1. Children were already not meeting grade-specific standards before the crisis, with marginalized children underperforming most;
2. Children have lost learning during the crisis, and the gap between the most advantaged and more marginalized children has grown; and
3. Children's future capacity to learn will have been affected through the longer-term economic repercussions as more families fall into poverty, as well as the longer-term physical and mental health implications– including nutritional issues, which will impact marginalized children more.

Indonesia will have to invest in teachers' continuing professional development, prioritize and target marginalized children, and rethink the focus of learning in the short to medium term. All while considering how EdTech can help realize this, if they are to address the learning crisis in the longer term.

4.1. Plans to build back better

The MOECRT's ESP sets out changes that are anticipated in the world over the coming decades:

1. There will be a need to harness technology in the way we work, spurring innovation and increasing connectivity of people through technology;
2. Socio-cultural changes through people living and working longer, a larger middle class, more diversity and a greater emphasis in society on ethics and well-being;
3. Climate change, which will require sustainable solutions and clean energy; and
4. Employment will be more flexible and mobile, with more self-employment, driven by individual development.

To prepare Indonesia's youth for this future, MOECRT has set out its Freedom to Learn, which seeks to:

- The Freedom to Learn programme turns learning from a burden into something that is a pleasant experience;
- Free a closed education system (stakeholders act individually) to become an open education system (stakeholder cooperation);
- Free the teacher as a successor of knowledge to become a learning facilitator;
- Independent pedagogy, curriculum, and assessment controlled by content, to be based on competence and values;
- Free the pedagogy that is designed to be average (one size fits all) to be learner-centred and personalized;
- Free manual/face-to-face learning to become learning facilitated by technology;
- Free education programmes controlled by the government be a programme relevant to industry;
- Free education, which is burdened by administrative apparatus, to become free to innovate; and
- Free the government-controlled education ecosystem to become an ecosystem coloured by autonomy for all and active participation (agency) of stakeholders

The Freedom to Learn programme is to be realized through:

1. Increasing leadership competence, collaboration between elements of society, and culture;
2. Improving infrastructure and utilizing technology in all education units;
3. Improvements to education policies, procedures and funding; and
4. Improvement of curriculum, pedagogy, and assessment.

MOECRT has a clear vision for building back better in Indonesia, and the ESP has clear and detailed strategies for achieving this. These are based on the aforementioned founding principles of Pancasila.

"Learning can happen at home and in the school. While at home, parents can help children to understand their learning plan, and what can be discussed at home, while school is used for collaboration and further clarification. This will be very effective, even when the pandemic is over, so that the students see that learning should come from their own initiatives, with their own targets, and achieved when they get to school with teachers in the future[150]"

This view is supported throughout the system:

"No one wants this situation, but when it happens everyone working in education will have to prepare themselves to be competent to take it forward. For parents and other stakeholders in education it is time for us to change our mindset that teachers should not only be at school, and learning doesn't have to be done in school -- everyone can be a teacher. We should make wherever we are as a place we can study, so that we can provide comfort to students or anyone else who is studying[151]."

Education Cluster members support this vision and felt that the principle of Gotong Royong (cooperation to achieve a shared goal), delivered through the village system and community-led support, would strengthen schools' capacity to deliver this idea:

"There is a need to strengthen communication and educate relevant stakeholders (school staff, parents and communities) on their roles. It needs to be accepted that education is not just the business of school or teachers, but also for parents. For example, village funds could be used to support distance learning by providing free internet. Prior to the pandemic, the relationship between schools and their communities was 'not too harmonious'. The issue of capacity to implement national policy and guidelines at the regional and local level is significant, and needs to be looked at. There has been a big shift in the acceptance in Indonesia that blended learning is here to stay, but children haven't yet reached the point where they are independent learners. As this situation is here for some time to come, and other, possibly worse scenarios may arise in future, Indonesia needs to do more to ensure all schools are safe schools, so that all 68 million children can be safe and continue to learn. Not just those who live in urban areas, are from wealthier families or who attend the 25 per cent of schools that are currently classified as safe."

Education Cluster members see a need for more dissemination of new policy in line with the 2013 curriculum reform, and shared that teachers and teacher professional associations want "adjustment to decentralize decision making– have more independence to define the need in the local context, more collaboration between civil society and government, and policies in place that support teachers to learn in their communities."

World Vision conducted a survey to raise teachers' voices (not published at the time of the case study). This shows similar perceptions, that 95 per cent of teachers do not expect to fully go back to teach in school face-to-face alone; they expect a blended approach to learning to continue. Teachers have recognized that they need more competency in MHPSS, remote learning skills, ICT use and curriculum adaptation. Teachers want software like Google Classroom for simple presentations and short messages, and want to reduce their internet use by using Facebook Messenger rather than Zoom. Most of all, teachers want continuing professional development– both face-to-face and online.

For those working closer to the schools, the vision focuses on equality:

"For people like us living in a remote area far away from communication, this should raise concerns to government and the world -- people like us have no access. When there is a pandemic, we received a big hit and big impact. There needs to be global attention to isolated areas, to make it more equal. There are some who have no access to technology, and others that enjoy all the advantages."

This is in line with findings by UNICEF and the International Telecommunication Union:

"The digitalization of society has made ICT skills and access to technology important, but the COVID-19 pandemic has turned these things into essential human rights in terms of the educational, social and professional needs of children and young people. The lack of connectivity among the most marginalized populations -- children and young people from poor households and rural areas -- places them at an extreme disadvantage, and all but eliminates any chance they might have of participating in the modern economy [...] Closing the digital divide will require significant resources, cooperation and dedication. But we must act -- the ability of many children and young people to achieve their full potential depends on it[152]."

4.2. Recommendations for increasing resilience to future shocks

As 2020 draws to a close, the focus of MOECRT has begun to shift to the development of school reopening monitoring tools, the implementation of the emergency curriculum, teachers' capacity building, and the development of the learning digital platform. It is not surprising after such a tumultuous year that the ESP has been set aside as emergency measures to address an unforeseen crisis take priority. Many of the recommendations in this section are aligned to the vision for education set out in the ESP, but have been contextualized to the COVID-19 situation. In the longer term, some radical reforms will be needed to ensure that the meaningful and well thought-out policies in the ESP are implemented effectively at school and district level, so that equitable learning can take place.

These recommendations also draw from the joint UNICEF UNESCO and World Bank paper "What have we learned?"[153], and provide suggestions for how MOECRT can take forward these reforms in the short and medium term. They also draw on the underpinning foundational philosophical theory of Pancasila.

Recommendation 1 - Based on the long-term vision for Indonesia's education sector and the pre-COVID-19 learning levels, clearly define the focus of learning for the short and medium-term, and the approaches to be used to achieve these.

a. "Without mitigation, children could lose more than a full year's worth of learning from a three-month school closure, because they will be behind the curriculum when they re-enter school and will fall further behind as time goes on. Remediation reduces the long-term learning loss by half, but still leaves children more than half a year behind where they would have been with no shock. Remediation combined with long-term reorientation of instruction to align with children's learning levels fully mitigates the long-term learning loss due to the shock, and surpasses the learning in the counterfactual of no shock by more than a full year's worth of learning[154]."

b. Be more specific on what children should learn and the focus of the emergency curriculum, and provide simple guidance for teachers on putting this in place. The ESP describes the current curriculum as "rigid and focused on content. There are not many opportunities available to really understand the material and reflect on it. The curriculum content is also considered too theoretical, and difficult for teachers to translate practically and operationally into learning materials and activities class." The curriculum will need to be revised, drawing on good practice developed during the pandemic.

c. Support teachers to conduct regular formative assessments to identify children's learning needs to feed into the remediation plans.

d. Develop clear short-term and medium-term plans for remediation and re-orientation that meet the needs of individual children, and for tracking their effectiveness. This could consider approaches such as Sri-Lanka's multi-level child-centred method to learning and the Teaching at the Right Level approach, and should feed into the Continuing Professional Development strategy for teachers (see Recommendation 2).

e. Develop new approaches to learning assessment and its shifting role across remote learning, to remediation and blended learning. Consider the impact of school closures on national assessment and develop clear policy and guidelines on how to mitigate the damage to the current school leaving population.

Recommendation 2 - Develop a comprehensive strategy for taking forward a blended approach to learning that can be adapted to remote learning in times of crisis, but is also applied when schools are open as part of everyday teaching and learning to complement face-to-face lessons.

a. Develop a multi-sector, multi-partner costed plan to address access issues for internet and cellular connectivity and ensure the 'unity of Indonesia' through equal access to all. This should address issues such as affordability, connectivity, literacy, discrimination and inclusivity and should include zero-rating services, enhancing and innovating connectivity, free and discounted devices and digital literacy training[155].

b. Consider how teachers' use of and children's engagement with no-tech and low-tech alternative modalities of distance learning can be extended to reach those that currently have no access to digital technologies. For example, explore how the use of radio and TV for learning can be enhanced, since these channels are widely available across the country, but were under-utilized during the pandemic. This should also look at the production and use of offline materials and resources, especially for children with disabilities.

c. Further improve multi-sectoral partnership and engagement with the private EdTech sector, including setting standards for data privacy and security, development of clear standards for performance and cost effectiveness, and the transparent and rigorous evaluation of leading products[156]. PPP (public private partnership) on curriculum design and implementation, product development and teachers' skills development would also add value to the public education system.

d. Embed activities to improve student readiness into the teacher development programme, including developing a growth mindset, resilience and independent learning skills; psychosocial support to well-being and better mental health; and digital literacy. This should build on the six Pancasila Student profiles established by MOECRT: (1) global diversity, (2) mutual cooperation, (3) creative, (4) critical reasoning, (5) independent, and (6) have faith, fear God Almighty, and have noble morals.

e. School and teacher readiness:

   » School management: support school-level autonomy with enhanced planning and monitoring capacity, creation of local networks and support from districts.
   » Teachers: the Freedom of Learning Policy is intended to change the paradigm of teachers from being simply conveyors of information to being facilitators in learning activities. This vision needs to be reflected across pre-and in-service teacher development. MOECRT to develop and work with provinces to implement a comprehensive Teacher Continuing Professional Development (CPD) strategy that sets out principles for CPD; CPD delivery approaches (including school-based training); school-based and remote support mechanisms and networks; skills to focus on developing for the short, medium and long term (see Recommendation 1); and changes needed to pre-service teacher training and teaching practice.

Recommendation 3- Develop a comprehensive strategy for mitigating the inequalities in education in Indonesia.

a. One of the founding principles of Indonesia is "social justice for every people of Indonesia." The Freedom to Learn programme encourages participation and support from all stakeholders: families, teachers, educational institutions, business and industry, and the community. Based on these principals, develop a consensus for prioritizing marginalized groups and measuring progress in reducing disparities. Ensure disaggregated data is available and published at the national and provincial levels that shows the level of progress in ensuring equality of provision and outcomes.

b. Monitoring student dropout and engagement: continue to work with MOV and Education Cluster members such as UNICEF, to strengthen and scale-up community monitoring of student participation (CBDIS), and link this to village planning to address community-level issues. Implement ESRP to support re-enrolment campaigns and minimize student dropout. Provide targeted support and communications using different channels for groups that may be at higher risk of dropout-- for instance, working with teachers and school leaders to conduct daily check-ins by phone or in person.

c. Effectiveness of implemented health and safety measures: work in a cross-sectoral way and across levels to develop a consolidated costed medium-term plan for ensuring all schools have adequate WASH facilities and classroom space to ensure social distancing. Review India's PPP campaign Swachh Bharat Abhiyan (Clean India Mission), to see how technology was used to mobilize Corporate Social Responsibility funding for toilets for schools.

d. Address social norms and harmful practices: child marriage, stigmatism and lack of support for disabled children and parents, violence and child labour all require a social shift in attitudes and behaviour to fulfil the second Pancasila-- "a fair-minded and civilized humanity". This can only come through targeted interventions. Work with Education Cluster partners and with MOWECP to scale up successful campaigns, and develop new ones based on need, and to close legal gaps that allow underage girls to be married through religious authorities.

e. Working with other relevant ministries at provincial and district levels, strengthen the capacity of the safeguarding system at school and community level, and scale up the school feeding programme. The ESP includes information on how education stakeholders should partner with other sectors– for example, on nutrition and school feeding for ECE students. These cross-sectoral strategies need to be updated in light of lessons learned during the pandemic.

f. Put in place measures to enable more targeted responses for children with disabilities to ensure that they are effectively supported with appropriate teaching, learning materials and resources and technology support– both during further school closures, but also when schools are open. There is a need to provide capacity building and the scale-up of good practices to ensure that all teachers of children with disabilities can be creative, and can address the complex needs of each child with disabilities. Work with social services to strengthen the provision of health and MHPSS to children with disabilities during school closures. Ensure that child-level tracking of support and participation in learning are in place to identify and target children with disabilities who are being left behind.

Recommendation 4- Review and revise existing national strategies, policies and plans to incorporate the reforms discussed in Recommendations 1-3.

a. It is important for Indonesia to revisit its Education Strategic Plan in order to embed the development of the blended approach to education within the plan, and update other strategies in line with lessons learned during the pandemic. This would include integrating a Technology for Learning strategy, articulating which distance learning modality is most appropriate in which context, and would outline what EdTech solutions are envisaged, and how they would be rolled out while mitigating the risk of further worsening the digital divide.

b. Revisiting ESP also means rethinking curriculum reform and teacher training, monitoring system strengthening as well as implementation management mechanisms, and any other aspects of education plans that have been affected by COVID-19 and need adjusting. It would provide an overarching framework for addressing these issues, as well as aligning these reforms with Recommendation 3, to ensure a multi-sectoral approach to education is formalized and rooted in equality and social justice for all.

Recommendation 5- Identify and work towards improving the effectiveness of decentralized education financing and management.

The MOECRT's ESP mentions that "adjustments to the regulatory framework are already being planned". This includes changes to the policy and legal framework and the structure of MOECRT, to ensure it can meet its mandate and improve the quality of public services. Also included is change management to strengthen supervision, performance accountability, institutions, governance and human resource management. One of the Nawacita (missions to carry out the president's vision) in the 2020-2024 period is to improve "the synergy of local governments within the framework of a unitary state." The change management reforms will need to be deepened and replicated at the regional, provincial, district and school levels if real improvement is to be seen, and this will need political support at all levels. The ESP details three strategies to assist planning and regional education budgeting, included below.

a. Revise the Emergency Response Strategy, safe school policy and EiE (education in emergencies) policy to consider preparedness and response to health emergencies, as these are currently focused on natural disasters only. This should include strengthening the coordination at sub-national and district levels on the activation of Pos Pendidikan (Education Post) for the COVID-19 response by the education sector, as well as referring to the activation of Education Cluster at national level.

b. Work with the Ministry of Finance to increase budgets and improve coordination between MOECRT/MORA and the Ministry of the Interior, who coordinate the response between national and sub-national levels. Consider how to ensure more consistency of funding and standardized implementation of guidelines within a decentralized system. This should include the recommendations made by the World Bank (2020) in their review of subnational education public expenditure[157].

    » First, districts need to have non-salary related recurrent expenditure in order to conduct activities that support learning outcomes. For example, teacher training, school advisory systems and head teacher support networks. This aligns with the ESP strategy to, "assist the Ministry of Home Affairs and the Ministry of Finance to evaluate the budgets of district/city education".

» Second, support districts with guidance on how to prioritize programmes that improve learning outcomes and provide targeted capacity building to districts and cities in planning and executing education programmes. This is included in the ESP as: "Assisting regions in conducting Situation Analysis and strategic planning", and "provide input to the regions to prepare annual programs, determine targets and align policies".
» Third, simplify budget and expenditure classifications to enable more effective reporting, and comparison and tracking of education expenditure, to ensure decisions are results-focused. Finally, leverage technology to collect, integrate and analyse financial, administrative and outcomes data for better decision making and accountability (see below).

c. In line with Pancasila, and especially pillar four -- "Democracy led by wisdom of consultation by the representatives of the people", continue to support the localization of decision making on reopening schools, and support the flexible use of school funding to improve contextualization of responses and teacher autonomy.

d. While ESP includes a very detailed set of performance targets for strategies, the framework for collecting this data is absent. Technology can be leveraged to collect and collate real-time data across the country if Recommendation 2a is addressed, which would increase supervision and performance accountability and stimulate better governance. This can be done by strengthening school-level monitoring systems using a range of approaches to ensure far higher response rates. This can include district and provincial use of dashboards, which report on regional targets (see point above). Payment by Results[158], and the Delivery Approach, can also be considered as a way of stimulating more regular collection and use of data at all levels[159]. Scale-up existing good practices such as CBDIS to ensure more use of data at all levels to target the most marginalized.

4.3. Conclusion

Indonesia is well-placed to manage the COVID-19 pandemic. It is a country with committed leaders and a clear fiscal support programme, and has begun to develop positive multi-stakeholder and multi-sectoral engagement. Having spent the last nine months in reactionary mode, the country is now shifting to think about more medium to longer-term strategies. A key test of how successful Indonesia will be in addressing this global crisis will be the extent to which existing inequalities are targeted and reduced, and the extent to which learning loss is managed and declines in learning are reversed.

The objectives of this case study were:

- To assess and estimate the various impacts of the COVID-19 pandemic on the education sector and stakeholders in Asia;
- To examine policy and financial implications on progress towards achieving SDG 4-Education 2030; and
- To identify examples of promising responses and strategies in education and associated social sectors, which can be shared with other countries.

The data on Indonesia presented in this case study highlight the main impacts of the epidemic on the education sector. These include both impacts on participation and learning outcomes as well on broader aspects of safety, health, well-being and protection. Dropout from especially the younger age groups of pre-primary and primary children are reported to be very low. The challenge instead is to address the issues around economic hardship that are driving older children out of school and into the workplace, or into underage marriage. Indonesia's social sector has a good system in place for delivering targeted relief to households, which it has been doing. This needs to be maintained, as long as the need continues and incentives for those who have left education to join the workforce need to be considered if those children are ever to come back into school. The cost to society in the long term of providing emergency support is likely to be far less than the future loss in earnings for under-educated citizens. The pandemic has placed issues around child marriage in the spotlight, with girls significantly adversely affected. Community-monitoring programmes such as CBDIS need to be harnessed by villages to highlight the potential risk of girls in each community, so that measures can be put in place to address the factors or social norms driving the phenomenon.

The longer-term health and well-being effects of lockdown on children's nutritional status, their physical and mental development and their health status can still be addressed if remedial measures are taken to ensure missed immunizations are administered, and school feeding programmes are reinstated or adapted to school closures. This is particularly important for younger children and pre-primary aged children whose development is at a crucial stage, and depends on how safe they feel and whether they have enough to eat. As the Indonesian economy is predicted to bounce back relatively quickly from the pandemic, the country will have sufficient resources in place to address the social and economic hardships that many families are experiencing.

Learning in Indonesia was already below curriculum expectations prior to the onset of COVID-19, with wide disparities by gender, region, disability, as well as other marginalization dimensions. While Learning From Home was not designed to continue curriculum delivery, the evidence suggests that children from urban and richer households will have progressed more academically than their poorer and rural counterparts. This has been accentuated by the digital divide, as well as the resources made available at local levels to implement and support Learning From Home. In areas where education has not been a priority, there is less capacity to support schools to reopen safely or to support teachers to deliver Learning From Home effectively, either offline or online.

Promising responses in education in Indonesia were demonstrated at the national level through the huge efforts put in to set up Learning From Home (guidelines, portals and curating materials), and to support decentralized decision making through more flexible use of school funds, and localized decision making about school re-opening (within an overall framework). Cross-sectoral responses by education, health and social protection agencies created safety nets for many children and families. This will have an impact on the longer-term development and opportunities of many children, through enhanced nutrition and engagement with other services such as immunizations. In addition to government coordination, wider stakeholder engagement and cooperation has been very strong, including with the private sector (especially in IT), the Education Cluster members, and with communities through widespread campaigns, surveys and support to community-led responses (such as CBDIS for community monitoring and planning).

As a result of the increased use of technology by teachers and students in Indonesia, the country is in a strong position to re-imagine what education should look like, and how it should be delivered in ways that are in line with the founding principles of Pancasila.

Annex: List of stakeholders interviewed and questions

A.1 Government stakeholders

NAME	ORGANIZATION	TITLE
Samto Prawiro	**Directorate of Community and Special Education, MOECRT**	**Director**

Questions on Learning From Home:

1. What are you most proud of?
2. What are your major concerns?
3. What are your plans going forward?
4. What would be your advice to other countries which may be thinking about introducing a remote learning programme?

Jamjam Muzaki	**National Secretariat on Safe School, MOECRT**	**Coordinator**

Questions on Learning From Home:

1. What is the data telling you about the levels of access and participation in Learning From Home, especially in regard to the most vulnerable children?
2. What interventions are being done to support better access and use in hard-to-reach or disadvantaged areas or for vulnerable/marginalized children, and how is this working in practice? Please include any financial support being provided.
3. What is the role of teachers in developing content and what support has been given them to do this (please include financial support)? What is the overall assessment about the quality of what they are producing?
4. Have schools that have re-opened continued with Learning From Home? Is the intention that blended learning continues in the future? What plans have been developed/budgets allocated to implement this?
5. What would be your advice to other countries which may be thinking about introducing a remote learning programme?
6. What challenges did you face in coordinating your response with the regions and with partners and how did you overcome these?

Rafles Ngilamele	**Supiori District Education Office, Papua**	**Head of District Education Office**

Questions on Learning From Home:

1. What has been your role in Learning From Home?
2. What do you think has gone well?
3. How is Learning From Home affecting the most marginalized and vulnerable children in your communities?
4. What support have you and your schools/teachers had to implement Learning From Home?
5. What could have been done differently and how?
6. What lessons have you learned from this?
7. How can Learning From Home be used going forward once schools begin to resume?
8. What advice would he give to others in similar situations?

A.2 Education cluster members

NAME	ORGANIZATION	TITLE
Imelda Usnadibrata	Save the Children	Head of Education
Fredrika Rambu	Plan Indonesia	Project Coordinator
Maria Pardede	NGO coalition	Member
Mega Indrawati	Wahana Visi Indonesia	Education Team Leader
Saskia Rosita Indasari	Wahana Visi Indonesia	Education Specialist

Questions on Learning From Home:

1. What has been your role in Learning From Home?
2. What are the greatest challenges that are still outstanding with Learning From Home implementation and what is being done to address them?
3. What lessons have been learned during Learning From Home implementation?
4. How are the lessons learned being used to strengthen current Learning From Home implementation and also policies and guidelines for the future?

A.3 UNICEF Indonesia

NAME	TITLE
Nugroho Indera Warman	UNICEF Education Specialist, ECE and EiE
Wahyu Agung Kuncoro	Child Protection Consultant – coordination Education Cluster
Ali Aulia Ramly	UNICEF Child Protection Specialist Indonesia – Focal Point for Child Protection in Emergency – COVID-19 response Social Protection, MHPSS.
Yusra Tebe	EiE Consultant – COVID-19 response – coordinating & technical response with MOECRT (Learning From Home & back-to-school guidelines)

Questions on Learning From Home:

1. Overall, in what three main ways are UNICEF and UNESCO adding value to the GOI's COVID-19 education response?
2. What is UNICEF's role in Learning From Home? I think I have most of the information around the development support provided, communications and the survey. Has UNICEF supported with any training or support for Learning From Home as it is being implemented?
3. What is UNICEF's role in supporting safe school re-opening, increasing enrolment and attendance and the commencement of face-to-face learning – a brief summary as the SitReps contain some of this information.
4. What lessons have been learned during the Learning From Home development process and its implementation?
5. How have these been used to strengthen current implementation, and also future plans?

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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 Indonesia, provides reflections on lessons learned so far in Indonesia'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 closure. It also looks to the future, in building back better and increasing the resilience of the education system to future shocks.

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This report was supported with funding from the Global Partnership for Education.