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EARLY LEARNING AND GENERAL EDUCATION IN THE MALDIVES

PERFORMANCE, CHALLENGES AND POLICY OPTIONS

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EXECUTIVE SUMMARY

Summary of Education Sector Priorities, Challenges and Policy Options

Education Sector Priorities and Challenges	Policy Options
Chapter One: Access to and Participation in Foundational and General Education in the Maldives	
Priority 1: Improve participation at the foundation, primary and lower secondary stages of education, specifically for identified vulnerable groups i.e. girls, children with special education needs and students at risk **Priority 2:** To improve participation overall in higher secondary education, especially for boys	**Policy Option 1:** Expand multiple and flexible learning pathways **Policy Option 1**: Develop evidence-based Science, Technology, Engineering and Mathematics (STEM) education and Technical and Vocational Education and Training (TVET) systems. **Policy Option 3:** Strengthen the Early Warning System for students-at-risk of dropping out.
Chapter Two: Education Quality in the Maldives	
Priority 1: Improve the quality of education through the proper use of technology **Priority 2:** Prepare students for the modern global economy	**Policy Option 1*:*** Implement an effective strategy for utilizing technology to enhance learning **Policy Option 2**: Improve the system for promoting and measuring higher order cognitive and socio-emotional skills
Chapter Three: The Education Sector's Response to COVID-19 in the Maldives and Other Small Island States	
Priority 1: Accelerate learning by building-back a better and stronger education system	**Policy Option 1:** Scale-up effective COVID-19 response policies **Policy Option 2:** Implement deeply needed education reforms

	Policy Option 3: Rebuild an education system which is attentive to the most vulnerable students **Policy Option 4:** Harness the power of technology to ensure learning continuity in crisis **Policy Option 5:** Establish a "reserve fund" to address shortfalls in education financing during periods of crisis.

Access and participation at the pre-primary, primary and lower secondary education levels are high in the Maldives, but there are significant challenges in access at the higher secondary level

The Maldives has recognized the vital importance of early childhood education (ECE) for human capital development. Pre-school education is offered through a network of about 325 schools covering all inhabited islands. Among these 194 are government schools, 61 are community schools and 70 are private schools. There are approximately 20,400 children aged 3-5 years enrolled in pre-schools. Around 9,600 students are enrolled in government schools, 3,600 students are enrolled in community schools and 7,100 students are enrolled in private schools. According to this data, 47 percent of children are enrolled in government schools, 35 percent of children are enrolled in government schools and 18 percent of children are enrolled in community schools.

Participation in primary education is near universal, and at the lower secondary level educational attainment is also high. Primary and lower secondary education are delivered through a comprehensive network of government schools covering the entire country. There are 211 primary schools, of which 205 are government schools. There are also a small number of private primary schools, mainly in Male' and 1 in the Seenu atoll which is the most populous atoll after Male'. About 47,000 students (ages 6-10) are enrolled in a network of 211 primary schools (205 which are government schools). The net enrollment rate (NER) in primary education is around 96%. There is also a high degree of gender equity—for female students the NER is 96.3% and for male students the NER is 95.5%. About 16,000 students are enrolled in lower secondary education, with a net enrollment rate is around 90.5%, but there is gender disparity at this level – with a NER is 88% for females and a NER is 93% for males.

The success of the Maldives in achieving universal primary and lower secondary education is the result of clear government commitment and sustained policy action. The Government of Maldives (GoM) seeks to achieve universal primary education through a combination of demand-side and supply-side policies (MoE 2019). The main demand-side initiative is the provision of free education in government schools. This has decreased the cost of school enrollment and attendance for children, which is important for poorer families. The key supply-side policy is the establishment of a complete network of primary and lower schools in the inhabited islands, so that all children aged 6-12 years can attend a school in own their home island or in a neighboring island. These policies have been effective as seen in the high enrollment rates in primary and lower secondary education.

There is a steep decline in enrollment at the higher secondary education level; and these levels are low in an international perspective. The NER is 45 percent in higher secondary education, which is considerably less than the NER in lower secondary education. At this stage of education fewer male children are enrolled than female children. The NER for males is 39 percent and the NER for females is 50 percent. The overall GER in higher secondary education is 50 percent. The GER for males is 43 percent and for females, 57 percent. The country has a lower higher secondary education enrollment rate than is predicted for the country's level of per capita income, with the higher secondary enrollment rate well below the regression line for small island countries. The Maldives is behind all small island nations, including some

that are considerably poorer, such as Belize, Cape Verde, Dominica, Samoa, Sao Tome, St. Lucia and Tonga.

The GoM acknowledges that the key access related challenges facing the country are to improve participation for identified vulnerable groups i.e. girls, children with special education needs and students at risk and especially participation in higher secondary education [Education Sector Plan (ESP) 2018-2023]. Polices to address these challenges are outlined in the government's policy framework for education. The first goal proposed in the ESP is "Improved Learning for all, through equitable access to quality education". In its ESP 2018-2023, the GoM identifies a number of strategies to achieve equitable access, especially for vulnerable groups at the primary and secondary levels.

Expanding educational participation at the higher secondary level is important for the Maldives' achievement of its development goals

Accelerating human capital development, especially in light of the recent COVID-19 pandemic is critical for the Maldives' development goals; and to achieve this, the country must expand educational participation, especially at the higher secondary education level. Challenges in access and participation at the higher secondary school level are not unique to the Maldives-- these are faced by many upper middle-income and even high-income countries as well as many Small-Island Developing States (SIDS). The underlying causes of this issue may differ by context and culture but are not entirely dissimilar. For instance, a recent study from the Latin America and Caribbean region where this issue is prevalent suggests that one of the common reasons for drop-out, especially among boys, is weak education relevance (Josephson et al. 2018). Weak labor market relevance and other barriers to higher secondary educational participation are not insurmountable; but the hurdles are undoubtedly greater as experts forecast a decline in school enrollment rates due to COVID-19.

Multiple and Flexible Learning Pathways (MFP) can further support the expansion of access to learning, particularly at the higher secondary level

Multiple and Flexible Learning Pathways (MFP) can improve access to learning, particularly at the secondary level. MFP can take a variety of forms and shapes, but it is an important strategy for improving participation for students at risk of dropping out. As a UNICEF report highlights, **"**alternative modalities of secondary education delivery are used in various contexts, for example hard-to-reach rural communities with no access to nearby schools, or for adolescents with caregiving or work responsibilities that are incompatible with mainstream schooling. The formal curriculum is adapted to flexible timeframes and uses adapted pedagogical methods and materials as well as ICT-supported learning. These modalities are usually part of the formal education system and lead to certification (UNICEF 2020)". Education policy makers are also recognizing that traditional formal education systems are no longer sufficient for the complex and often competing demands of the modern world. As such, both formal and informal learning opportunities through open, flexible and distance learning (OFDL) models are necessary elements of the modern education system (Zhang et al. 2019). Moreover, recent global events such as the COVID-19 pandemic have also made educators keenly aware of the need to constantly adapt teaching and learning practices.

Evidenced-based Science, Technology, Engineering and Mathematics (STEM) education and a Technical and Vocational Education Training System (TVET) can help to improve access at the higher secondary level

The Maldives should invest further in developing an evidence-based STEM and TVET systems as a viable learning pathway, particularly in a post-COVID 19 context. Education policy makers agree that effective STEM education and a good quality TVET system are strongly aligned with the needs of the labor market. The Maldives has already begun exploring the use of STEM and TVET to expand learning opportunities. However, as one regional policy document on emphasizes, "the need to understand and respond to the critical linkages between labor market/industry needs and appropriate training cannot be over emphasized, if students are to be provided with learning opportunities relevant to their future (PIF 2018)". The successful use of STEM and TVET to expand learning opportunities rests in the strong alignment of these systems with the needs of the labor market. This, in turn, requires research on the labor market needs in the country and the development of evidence-based STEM and TVET strategies that are aligned with these needs. The post COVID19 environment also provides an opportunity for STEM and TVET to better serve the labor market by ensuring that these programs "facilitate the acquisition and development of foundational cognitive, socioemotional, and digital skills that are likely to be increasingly valued in the post-COVID19 workplace (World Bank 2020). As the Maldives looks to develop human capital post-COVID 19, it will be important to focus on expanding the development of an evidenced-based and labor market-oriented STEM and TVET system.

Strong action to prevent school drop-out—such as the implementation of a comprehensive Early Warning System (EWS) is an important strategy for addressing school drop out in the Maldives, particularly post COVID-19

Taking proactive measures to prevent school drop-out is a particularly important policy imperative in light of COVID-19. Experts project a significant increase in school drop-out at all levels, due to the COVID-19 pandemic. Moreover, available evidence indicates that as the pandemic continues, parents may be more hesitant to re-enroll their children—in fact, in one survey, as many as 88 percent of parents in France, 91 percent in Kuwait and 88 percent in Colombia expressed concern in sending children back to school (UNESCO 2020b). To protect gains already made and address the ongoing challenge of access at the secondary levels, it will be especially important for the Maldives to ensure that an early warning system is in place to monitor and prevent school drop-out.

An Early Warning System (EWS) is a proven tool that may address the challenge of school-drop out in the Maldives. EWS is a means of identifying students at risk of dropping out and providing the necessary remediation and support aimed at preventing drop out (OECD 2010). Global evidence suggests that these systems work in various contexts, but within the following set of parameters: i) a drop-out rate below 10%; ii) schools that have in place at least one teacher or staff in charge of vulnerable students (a point person in school) and; iii) schools that can call upon external social service to support the monitoring process (UNICEF 2018). The Maldives has some features of an EWS in place by way of its 2016 child centered attendance policy (GoM ESA 2019). It may be useful to build on this existing system to create a more comprehensive one that can monitor and track students at risk for dropping out and also implement responsive measures to address drop out.

Improving the quality of education, as measured by learning outcomes, is a central challenge facing the education sector in the Maldives

The Maldives has made significant progress in expanding access to education in the last few decades. However, learning outcomes are moderate. The global expansion in schooling has camouflaged a deeper issue which also applies to the Maldives: schooling is not producing adequate learning (World Bank 2018).

The most recent NALO (2017) results suggest that there is much room for improvement in learning outcomes across all subjects. In the 2017 Dhivehi Grade 4 language assessment, the national average score was 57 percent. Similarly, for Grade 7, the mean performance of students stood at about 66 percent. English language learning outcomes are also weak. In NALO 2017, the national average Grade 4 score was about 53 percent. On the Grade 7 English language assessment, only 5 percent of students achieved over 80 percent; and even greater percent of students, as compared to Grade 4, (35 percent) failed to achieve the minimum passing percentage of 40. Likewise, learning outcomes in mathematics are also weak. The national average for the 2017 NALO Grade 4 Mathematics was 57 percent. Similarly, the national average score for Grade 7 mathematics hovered around 49 percent.

There are also significant disparities in learning outcomes by geography (atoll-wise) and gender- with some atolls consistently outperforming others and girls outperforming boys across subjects. At both grade levels, Male, Seenu Atoll, and Gnaviyani Atoll perform significantly better than Laamu Atoll, the lowest performer. Specifically, for Grade 4 English, Male scores highest at 65%, followed by Seenu Atoll (64%) and Gnaviyani Atoll (60%). Laamu Atoll, on the other hand, scores about 22 percent less, at 42 percent, closely followed by Faafu Atoll (43%) and Noonu Atoll (43%). Likewise, for Grade 7 English, Seenu Atoll has the highest score of 62 percent, followed by Male' (61%) and Gnaviyani Atoll (61%). In contrast, Laamu Atoll has the lowest score of 39 percent. These discrepancies are largely mirrored in mathematics and suggest that there are clear atoll-wise disparities in learning outcomes, with significant disparities in learning outcomes between Atolls, with some Atolls consistently performing at the top end of the performance spectrum, and others showing consistent weakness in learning outcomes. Moreover, there are clear gender disparities in learning outcomes.

Historical perspective shows clear progress in learning outcomes over time, but early gains leveled off and progress in recent years has been mixed. A look back over the last two decades reveals clear progress in education outcomes. However, early gains have leveled off, and more recently, progress has been mixed. On the other hand, there has been no clear improvement in learning outcomes on the most recent Grade 4 and Grade 7 NALO assessments; with performance improving in certain subjects and declining in others, depending on the grade.

The GoM is attuned to the challenge of improving learning outcomes and its education sector plan lay out its strategic vision for improving learning outcomes

The GoM's policy framework to improve the quality of education is articulated in its Education Sector Plan (ESP) (2019-2023). Clearly, the quality of education needs to be improved, as demonstrated by the trend in learning outcomes discussed above and the GoM is well-attuned to this challenge. As a result, a five-year strategic plan to improve learning outcomes was developed and launched in 2019. This plan outlines the main challenges facing the education sector; chief among them, to improve the quality of learning outcomes and skills equitably, and to reduce learning gaps (GoM 2019).

The GoM also has several cross-cutting policy approaches that underpin this targeted framework for enhancing learning outcomes, including special support for SEN children. The GoM has outlined several cross-cutting policies that underpin its policy framework to improve learning. They include a) the promotion of holistic education; b) the transition to single session schools; c) a health and safety policy and; d) a school-based management policy. A key cross cutting policy approach is the promotion of inclusive education. An inclusive education policy was first introduced in the Maldives in 2013. Since then, then GoM has ushered in various strategies and activities to promote inclusive education with the goal of ensure that both highly talented children and those with special educational needs (SEN) are identified and provided with the special support required to maximize their learning outcomes.

To implement its policy framework, the GoM has initiated a series of initiatives including curriculum reform, School-Based Professional Development (SBPD) and the induction of a Quality Assurance (QA) framework and system to monitor the quality of schools. In 2015, building on modern best practices in education, a new curriculum known as the National Curriculum Framework (NCF) was rolled out. This outcome-based curriculum serves as the blueprint for education in Maldives. The Maldives has made progress in rolling out this new curriculum, but serious implementation challenges remain, specifically as it relates to the promotion of higher order thinking skills and the implementation of proper classroom-based assessments. The GoM recognizes the important role teachers play in delivering a high quality of education; and they also recognize that teacher quality has been a long-standing challenge for education in the country. In response, the GoM is focusing on improving SBPD, with the aim of supporting the achievement of required competencies among teachers and the use of appropriate pedagogical practices among teachers, including in distance education. To further promote education quality the GoM established the Quality Assurance Department (QAD) as part of the Ministry of Education (MoE). A key mandate of the QAD is oversee a program of school quality assessment through school reviews, which are conducted within the Quality Assurance Accountability (SIQAA) Framework.

In the interest of equity, the GoM has a strong initiative to promote inclusive education, with a special focus on assisting children with Special Educational Needs (SEN) and providing alternative pathways for children at risk. The GoM recognizes the importance of inclusive education in achieving equitable and improved learning outcomes. To this end, the GoM launched an inclusive education policy in 2013, with a special focus on children with SEN. Within this framework, the MoE launched various programs and interventions, including the introduction of a competency-based curriculum which addresses inclusivity, a provision of training to SEN teachers, SEN target setting and the establishment of a unit within NIE to support the implementation of this policy in schools. Still, much remains to be done, specifically in the areas of early identification of SEN children and early intervention programs.

Emerging challenges in education and the Maldives' response will determine the trajectory of its human capital and economic advancement goals

The Maldives must continue to invest in improving the quality of education; but there are newly emerging challenges that will determine the trajectory of its human capital and economic advancement goals. The Maldives has clearly made progress in educational attainment, but the quality of education remains a concern. The GoM is keenly aware of the factors impacting learning outcomes, namely the quality of curriculum implementation, teacher training, a system for quality assurance, a system for learning assessment, and programs for supporting equitable learning, especially for students with special

educational needs (SEN). The GoM has also been proactive in promoting initiatives to address these dimensions of quality. These initiatives will continue to require strengthening and development, but there are other emerging challenges that pertain to the future of work in a globalized and increasingly, technology and automation driven future.

The information-rich and technology intensive future calls for a new set of education policy priorities, key among them: 1) the development and measurement of higher order cognitive and socio-emotional skills and 2) the integration of technology in learning. Much has been written about the fourth industrial revolution and its impact on work in the future. COVID 19 has accelerated some of these challenges facing education and has also ushered in new opportunities. More will be discussed on the impact of COVID 19 on education but suffice to say it has cemented some of the looming challenges facing the education sector as it adapts to the changing nature of work. Two challenges in particular are: i) effective integration technology in learning and; ii) cultivating the socio-emotional skills students need to be competitive in the modern global economy. Like its global counterparts, the Maldives must ensure that its educational system is able to meet these challenges and prepare students for the future.

A high-quality education system will have to cultivate strong socio-emotional and higher order thinking skills – increasingly recognized as crucial skills for success in the global economy

Rapid changes in the global economic, environmental, and social landscape require that the Maldives place a greater emphasis on the promotion of socio-emotional skills through education. The global economy places a greater premium on higher-order cognitive skills, such as expert thinking and complex communication (World Bank 2018). Moreover, events such as the COVID 19 pandemic and natural disasters remind policy makers that building socio-emotional skills such as resilience and mechanisms for adaptivity in students is very important for sustainable human capital development. Socio-emotional skills are generally defined as "the learned competencies that help us understand ourselves, help us get along with others, and help us solve important social problems and resolve conflicts (Guerra 2015). They are important not only for relating in the social and work context but also are increasingly recognized as important to the development and use of cognitive skills (OECD 2018).

Moreover, to prepare students for the future of work, the Maldives will have to pay special attention to the promotion of PRACTICE skills. These are a subset of socio-emotional skills that are particularly important for the world of work. The eight skills identified within the PRACTICE framework are as follows: problem solving, resilience, achievement motivations, control, teamwork, initiative, confidence, and ethics. The PRACTICE framework was specifically designed to provide guidance for labor market-oriented skill-building policies and programs, and to frame the socio-emotional skills dialogue in a language that is consistent with intervention programs to promote job-oriented noncognitive skills. As the Maldives aims to prepare students to be competitive for the demands of the labor market, it will be important for the country to pay special attention to the promotion of PRACTICE skills through curricular and extra-curricular activities. At the same time, the country will have to explore ways to measure the development of these skills in students.

To improve learning outcomes, the Maldives must implement a strong an effective strategy for utilizing technology in education

The second emerging policy challenge for the Maldives is to implement clear and effective strategy for utilizing technology in learning. Obvious technological and social shifts require that education systems address the question of how to integrate technology into education. The OECD identifies the following three-fold rationale for technological integration in education: a) technology has a role in opening up new opportunities to improve the teaching and learning process; b) technological literacy is an essential pre-requisite for success in the knowledge economy and; c) technology is integral for accessing higher order competencies, also known as 21st century skills (OECD 2010). Given this, it is important for the Maldives to tap into the potential of ICT for improving the quality of teaching and learning. Moreover, it is important to properly integrate ICT in education to ensure that students are adequately prepared to adapt to rapid advances in how technology is used in the future of work.

COVID-19 has had a unique impact on education globally and education policy makers are grappling with its impacts and the way forward

COVID 19[1][2] has led to the largest disruption in the history of education worldwide and is expected to lead to significant learning loss, intensifying a "learning crisis" already underway in much of the world. Initial pandemic response measures included large scale lock downs across much of the world, resulting in the widespread closure of education systems at every level, from early childhood education to higher education. In fact, by UN estimates, the COVID 19 pandemic created the largest disruption to education systems in history (UN 2020a). Approximately 94 percent of the world's student population, and up to 99 percent in low and lower-middle income countries were impacted (UN 2020a). The economic impact of the Pandemic could depress education demand, as school drop-out rates increase and education investment by parents decline. The Pandemic could also intensify social pressures, resulting in increased child labor and child marriage. The supply-side of education could also be adversely impacted as Governments face fiscal deficits, and education spending is reduced. By any measure, the closure of schools for an extended period of time will result in learning loss. A recent World Bank paper projects learning loss based on three different scenarios. In a pessimistic scenario, where schools are closed for 9 months, learning loss is projected fall by 0.9 years (Azevedo et al. 2020). Many countries are likely facing the pessimistic scenario, approaching 9 months or more of school closures.

Those children with special education needs face a dual crisis. More specifically, children who are differently abled and have physical and mental needs are particularly at risk **(**Azevedo et al 2020). In many instances, these children are already disadvantaged by the traditional education system; moreover, they have special needs and often require one-on-one attention in particular instructional settings because they have more challenges than the average learner. Remote learning facilities are not often tailored to these challenges, and parents require special guidance. Moreover, these children will need to be given extra care and attention as school reopens, to prepare them (with special sensitization to health and hygiene measures required to prevent the spread of the virus) to renter the school environment safely. This will require extra resources in an environment where schools and education systems are already under resourced and overburdened. As such, children with special needs may not be able to renter the classroom as soon as they average learner, extending the period of learning loss that takes place outside the classroom environment.

[1] COVID 19, also knowns as SARS-CoV-2 stands for the Severe Acute Respiratory Syndrome Corona Virus Disease -2. In this document, it interchangeably referred to as COVID 19 and the Pandemic.
[2] As of the time of writing, the Pandemic has been underway for approximately 10 months and is still ongoing.

As such, children with disabilities are likely to fall further behind in the context of a remote learning environment.

The health impacts of COVID-19 were relatively small in the Maldives, but the social and economic impacts are likely to be more widespread and long ranging

The health impacts of COVID-19 were relatively small in the Maldives, but the social and economic impacts are significantly greater. The Maldives took a proactive stance to the COVID-19 early on, closing borders, restricting tourism and shutting down large swaths of the economy. These measures aided in curtailing the spread of the virus. Overall, the Maldives has had approximately 21, 570 cases and 64 deaths (a death rate of approximately .02 percent). Nevertheless, the virus has taken a significant social and economic on the country and has had an especially strong impact on its education system.

COVID-19 has inevitably led to learning loss in the Maldives, with about 10.3 million hours of learning for about 86,000 students per month lost during the 12 weeks of extended school shut-downs (MoE 2020). The school closures directly impacted over 91,000 school children from pre-KG to higher secondary, with the longest disruption faced by children in primary grades (Key Stages 1 and 2). About fifty percent (nearly 43,000 students) in the school system in the Maldives are enrolled in Key Stage 1 and 2 (corresponding to primary grades 1-6). These two stages of the education system experienced the longest disruption of learning, because of the way in which alternative learning arrangements were rolled out.

Secondary school children were also significantly affected; not only with the school closures but also because of postponements of high-stakes secondary school leaving examinations. Like their younger school counterparts, roughly 12,700 secondary school students experienced significant disruption. However, unlike students in Key Stage 1 and 2, these impacts extended beyond classroom learning to the high-stakes GCE O and A-level examinations. The examinations, which were supposed to take place in Oct/Nov of 2020, have been tentatively postponed to May/June 2021. These examinations caused significant stress even before COVID 19 and these stressors have now been exacerbated by the uncertainty and postponement of the exams. Moreover, the postponement of these exams will affect the transition of students to higher secondary and tertiary level studies and depending on the institution they have chosen, this may mean losing a full year of study at a critical age, with potential myriad consequences for their engagement in further study and potentially in the labor market (MoE 2020).

Inequalities in education quality and learning outcomes could widen in the Maldives because of the Pandemic. More than a quarter of schools (26 percent of schools) were identified as disadvantaged or underperforming schools. According to UNICEF, these schools lacked basic water, sanitation and hygiene facilities even prior to the Pandemic (MoE 2020). This puts them at a greater disadvantage in terms of being able to fulfill the standards required for reopening during the Pandemic. These students are already at a disadvantage and are likely to face more challenges unless they are given the additional resources to ensure that they are able to reopen safely. The result of extended school closures and unstable education provision is likely to have an even greater impact on these students, who are more likely located on remote islands and often come from poorer households where parents lack the skills to support home-schooling.

The Pandemic will impact both the supply of, and demand for education in the Maldives

Government schools have been overburdened and the Pandemic has created a shortage of teachers at the secondary level. The Pandemic has already put pressure on fee-levying private schools, causing some to close and this has overburdened Government schools that were already running at near full capacity prior to the COVID 19. Private schools are the largest providers of early childhood education in the country; with approximately 70 percent of children in pre-primary school enrolled in the private sector (MoE 2019). These pre-schools are at greater risk of closing due to the financial losses incurred during the Pandemic and shrinking provision in the private sector could overburden the public pre-primary education system, thereby affecting access to education at this early stage in the cycle (MoE 2020). Moreover, expatriate teachers, who constitute upwards of 22 percent of the teacher cadre in government schools and an even greater share of teachers at the secondary school level: approximately 43 percent of teachers at lower secondary and 46 percent at the higher secondary level has been affected in multiple ways; but mostly because of the increased likelihood that expat teachers are more likely to return to their home countries due to the Pandemic.

Impact on education at the system level (including education sector financing)

The Maldives' economy has been severely impacted by the Pandemic and this will have an impact on education sector financing, and ultimately on education delivery and outcomes. The World Bank estimates that the Maldives' GDP contracted by approximately 19.5 percent in 2020. The economic recession caused by the Pandemic has impacted all aspects of the public budget, including the education sector. The education budget has already been reduced by 5 percent in response to the Pandemic and is expected to be cut further depending on how long the economic crisis extends (MoE 2020). In addition, the budget will have to be reallocated within the sector to address the COVID 19 related needs of the education sector, such as investments in WASH and other infection prevention measures. Reallocation of the budget will likely impact planned education sector operational and development activities.

The Maldives' education sector response to COVID-19 has been pro-active and strong

A review of the Maldives' COVID 19 educator sector response shows a policy framework that is strongly aligned with international norms and guidance. From the outset, the Maldives' educator sector took a proactive approach in response to the Pandemic. Even before it was entirely clear that there would be extended school closures, the Government began putting in place measures to prepare for such an event. This included the establishment of a COVID19 Education Response Team and the issuance of a Standard Operating Procedure (SOP) to all schools, outlining the way in which the MoE and schools should respond and communicate during the different public health risk levels assigned by the Health Protection Agency (HPA). They also began sensitizing schools and the school community to the importance of COVID19 mitigation measures such as proper hand washing techniques etc. These measures prepared the groundwork for promoting the health and safety of the school community and for continuing learning during the extended school lockdowns that would follow in the subsequent months of the Pandemic.

Aside from the health and safety of the school community, the GoM's main concern in the first phase, the "coping" phase, was to prevent learning loss. To achieve this, the MoE formulated a contingency work plan to continue education. They were quick to recognize that remote learning platforms needed to be multi-modal given constraints in the availability of digital infrastructure and access to technology among poorer households and more remote atolls. As such, they mobilized television for delivering learning remotely. At the same time identifying a number of digital platforms for remote education, including

Google classroom, TED-ED, Youtube and EduPage (MoE 2020). They prepared guidelines and contingency plans for remote teaching and learning and disseminated them to schools. A combination of different remote learning modalities was targeted for different age groups: play-based learning activity packs were distributed to all schools for the Foundation Stage (Pre-school). For Key Stages 1 and 2, remote learning activities were expected to focus on literacy and numeracy skill building activities. For Key Stages 3, 4 and 5, lessons were expected to be delivered via Telekilaas (Television-programs nationally telecasted for specific grades) and complemented with online instruction. For more on the different lesson plans for different key stages, please see Box 3.1. To address digital constraints and connectivity issues, the GoM supplemented student and teacher data (MoE 2020).

Despite the MoE's best efforts, learning was severely interrupted due to ICT constraints and other unexpected challenges

Despite the MoE's best efforts to continue education during school closures, learning was severely interrupted due to ICT infrastructure constraints as well as more unexpected challenges, such as the mental health stressors facing parents and students due to the Pandemic. In the first few months of the Pandemic following school closures, even the remote learning mechanisms were severely disrupted. While the MoE made every effort to ensure that learning continued as seamlessly as possible for Grades 7-12 with online learning platforms, parents, teachers and students expressed difficulty in carrying out their roles in the learning process during the early days of the Pandemic, when fear and uncertainty over the virus and its effects led to widespread mental anxiety and stress (MoE 2020). As a result, formal classes were discontinued for several weeks and the online learning platforms were utilized to deliver mental and psycho-social support to students. Moreover, ICT infrastructure and capacity were limited and despite the best efforts of the Government, students, teachers and parents faced serious digital barriers to remote learning. Internet penetration in the Maldives is deeper than in many other developing countries, but still weak--- a survey conducted in the early days of the Pandemic found that approximately 31 percent of students and teachers did not have access to the internet at home. This lack of connectivity created immediate barriers to accessing online learning platforms.

The Maldives began the second phase of the educator sector response, "managing continuity" around July 1, 2020, with a continuing emphasis on the health and safety of the school community. In the second phase of the educator sector response, "managing continuity" schools prepare for and begin to reopen. This phase is likely to be complex, particularly in the context of a public health emergency (World Bank 2020). From the outset, the GoM was aware of the importance of adapting school reopening efforts to the local context, and as such, reopening was a staggered process. The GoM's reopening guidelines allowed for reopening of schools from KS1-5 (Grades 1-12) only in islands where transmission was very low or nil. In areas such as the greater Male region, was transmission was more widespread, only KS 4 and 5 (Grades 9-12) were allowed to reopen for in-person learning. In those areas, remote learning measures would stay in place for lower grades until transmission was could be sufficiently reduced and the Pandemic was completely under control. The MoE also recognized that as long the Pandemic continued, blended learning models would have to remain in place, to allow schools and communities to adapt and switch between learning modalities depending on the local health situation and needs. The Maldives also issued health and safety guidelines and protocols in advance of school reopening**.** The GoM has also been investing in the necessary infrastructure and resources needed to implement these health and safety protocols and this continues to be a priority for the Government.

A number of challenges have emerged in the first phase and second phases of the Pandemic; including that of meeting and maintaining WASH and safety needs for schools; the shortage of teachers and inadequate mental health resources at the school level. The challenge of sufficient physical space and the constraints facing certain disadvantaged schools was already clear prior to the Pandemic. In fact, a joint MoE/UNICEF study identified 55 schools in particular (more than a quarter of the total number of schools in the country) where the lack of physical space and adequate WASH facilities was a concern. As previously discussed, approximately 22 percent of teachers in Government schools and 17 percent of teachers in private schools are expatriates, mainly from India. Many of these teachers decided to resign and return to their home countries as soon as repatriation was possible, leaving the country with a severe shortage of teachers. This shortage is going to be difficult to address in the short term, making it more likely that even with the resumption of schools, the quality of learning will be affected, and ultimately this could further exacerbate learning loss. Finally, the MoE recognized the lack of adequate capacity for psycho-social and school health support at the school level but has been able to find short term measures to remedy the situation. The Pandemic itself has had an impact on the mental health and well-being of students, and school principals highlighted this as a key concern in the school reopening process. However, even prior to the Pandemic, schools faced a shortage of counsellors. Only 28 percent of government schools had counselor, leaving the vast majority of schools without in-house psycho-social support. Moreover, only 27 percent of government schools have a School Health Officers. The Pandemic itself as well the response protocols only served to highlight these pre-existing gaps in the system, but such resource constraints are difficult to address in the near term because they require long term capacity and system building efforts.

The Maldives' Educator Sector Pandemic Response mirrors that of many Small-Island Developing States (SIDS)

Like the Maldives, many SIDS have been spared the devastating physical health impacts of COVID 19 because they are more likely to be able to isolate themselves due to geography and because they took proactive measures to protect the health and safety of their citizens. Because of their remoteness and low population density some of the SIDs, such as Micronesia, Nauru, Solomon Islands and Vanuatu had no confirmed cases of COVID 19. Others, with similar characteristics but tourism-based economies had a few confirmed cases (relatively low compared to the rest of the world) and some community transmission but were able to isolate themselves and keep the Pandemic under control.

Although spared the immediate health impacts of COVID 19, many SIDS, and especially the Maldives may be disproportionately affected by the negative economic consequences of the Pandemic. For many SIDS, their tourism -based economies and their economic and social reliance on the world has meant that they have not been spared the economic and social aftershocks; and in fact, their existing vulnerabilities make it likely that they may experience more intense and longer term economic and social consequences of the Pandemic (UN2020b). This is in large part is because many small island economies are highly dependent on tourism. Tourism plays an even larger role in the Maldives' economy, with tourism contributing about 66.4 percent to the country's GDP (Tateno and Bolesta 2020). With the hit to tourism, the World Bank estimates that GPD shrank by about 19.5 percent in 2020. While revenues shrank (by approximately 23.4 percent in Q1 of 2020), public spending increased by about 10 percent in the same period. Moreover, the Bank indicates that fiscal imbalances have widened significantly—with revenues cut in half (as compared to the corresponding period in 2019), but no commensurate adjustment in spending (World Bank 2020c). The country's fiscal deficit is projected to more than triple to 22.5 percent

of GDP. (World Bank 2020c). Finally, it's estimated that COVID-19 will probably cancel the last five years' of gains in poverty reduction in the Maldives (World Bank 2020c).

SIDS also share a number of common education sector challenges that have intensified as a result of the Pandemic, among them: the quality of education and widening gender gaps at the higher levels of the system. International and regional assessments show that SIDS learning outcomes at the primary level are low. Even among the wealthiest SIDS, learning levels are low. For instance, among middle and high-income SIDS, only Trinidad and Tobago participated on the Progress in International Reading Literacy Study (PIRLS) but scored below the international levels and just barely achieved the intermediate benchmark (Fiszbein and Stanton 2018). Results at the secondary level are also weak. The results of the CSEC[3], which almost all SIDS in the Latin American and Caribbean (LAC) region participate in, show that almost 60 percent of students did not attain the minimum score for entrance into higher education; 36 percent of students showed limited understanding of key mathematical concepts and 38 percent of students failed to attain a passing score on English (Fiszbein and Stanton 2018). Moreover, inequality in educational attainment has increased over time, particularly gender gaps; with girls outperforming boys in terms of access and performance.

In line with global norms and best practices, most SIDS education systems took a proactive approach to COVID 19, closed schools early on and launched remote learning programming to prevent learning loss. Most SIDS were proactive in closing schools for an extended period of time and transitioning to remote learning. Moreover, the response framework in most countries followed a similar paradigm to that of the Maldives; one guided by international norms and best practices. As such, both the Organization of Eastern Caribbean States and the CARICOM laid out plans that reflected the same priorities as the Maldives: i) attention to and care for the health, safety and well fare of the school community; ii) the development and dissemination of WASH standards and practices both during the lock-down and when schools would reopen; iii) an emphasis on inclusivity and attention to the most vulnerable populations and; iv) a reliance on digital platforms for education programming both during the lockdown and began to reopen.

Like other education systems, preventing learning loss and accelerating learning recovery is a critical part of COVID 19 education response in SIDS and some are finding unique ways of coping with the challenge. Continuing learning in the midst of the Pandemic response and recovery phase has been challenging for SIDS, like most other countries; but SIDS are finding innovative ways to recover learning. The Pandemic halted school leaving examinations in the higher secondary grades in many countries. Moreover, in the run up to the scheduled exams, learning was stunted as schools were closed. To maintain learning, the Organization of Easter Caribbean States (OECS) employed a strategy to ramp up learning and preparation for the Common Entrance and Caribbean Secondary Education Certificate examinations by developing short subject matter videos to help students gain mastery of key content and skills in advance of the rescheduled examinations. These videos have been distributed via both traditional and digital mediums.

[3] In the English-speaking Caribbean, the Caribbean Examinations Council administers the exam for the Caribbean Secondary Education Certificate (CSEC), required for secondary school completion and entrance into regional higher education programs.

However, the experience of SIDS also reveals challenges they face, particularly in terms digital and ICT related barriers to remote education delivery. Although SIDS, like the rest of the world recognized the importance of technology and digital education to sustain learning during the Pandemic, many lacked sufficient ICT infrastructure to ensure a smooth transition to remote learning. In Jamaica for instance, a survey launched in mid-2020 found that approximately 34 percent of children did not have exclusive access to a digital device for learning and only a little over 50 percent of both primary and secondary school students had access to a computer at home. The OECS identified this as one of the key constraints in the early days of their pandemic response, stating that "all states [Antigua and Barbuda, Commonwealth of Dominica, Grenada, Montserrat, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines] have experienced enormous problems with the availability of the devices required for both teachers and students to access the internet. This whole situation has highlighted the fact that some students and some communities are at an enormous disadvantage. There are instances in many MS of whole communities not having access to the internet" (OECS 2020).

The impetus to accelerate learning and build back better is even greater for SIDS like the Maldives

The impetus to accelerate learning and build back better may be even greater for small island nations such as the Maldives. The Pandemic has highlighted structural weaknesses in the economies of many SIDS. As previously discussed, many SIDS have economies that are not well diversified, highly reliant on tourism and highly sensitive to external economic shocks. Threats of climate change and natural disasters have made these economies especially vulnerable and it has become increasingly clear to their policy makers that they need to diversify their economies to fulfill their development potential. The ability to do this, however, will depend in large part on their ability to accelerate human capital development; and the education sector, which is at the heart of human capital development, will be a key to this. In disrupting their education systems, COVID19 and post-pandemic recovery phase presents these states with a unique opportunity to build back more resilient education systems that will serve to accelerate learning.

Building back better post COVID-19 should entail scaling-up effective pandemic responsive policies

The Pandemic offers a platform on which to build back better in three ways: first, by improving and scaling up effective COVID-response policies. The Pandemic forced education systems to innovate to prevent learning loss and build resilience. A key priority for Governments will be to identify and further develop these initiatives and integrate them to improve access to and the quality of education. Here, the World Bank identifies four promising areas for further consideration: i) Effective uses of technology in remote-learning systems; ii) Early-warning systems to prevent dropout; iii) Teaching at the right level and; iv) Ramped-up support for parents, teachers, and students, including socioemotional support (World Bank 2020). But there are likely other lessons learned that are more specific to country contexts, and it is important that countries take these into account when reflecting on how they can build back better.

Building back better should also involve the implementation of deeply needed education reforms—and the post-COVID- 19 context could provide a window of opportunity to implement such education reforms

COVID-19 also offers a unique window of opportunity for systems to review and focus on deeper education reforms. The world has never witnessed such a long term and widespread disruption of education. This has created unique synergies for experts and policy makers to review entrenched education policy and to reimagine education. Countries have the opportunity to review deeply embedded educational practices and policies. In fact, many countries, including SIDS such as the Maldives have had to postpone high-stakes secondary school examinations, one deeply entrenched assessment practice in many education systems. The pressures of these exams and their postponement is expected to take a toll on the students and their families. The Pandemic offers an opportunity to take a second look at such aspects of the system and reflect on how to reform them to improve education systems in the long-term. Likewise, the Pandemic has highlighted the importance of a paired down and focused curriculum. The Maldives, like many countries has already had to do that to ensure that learners acquire all the essential skills and competencies in an abbreviated school calendar. This "refocusing" or rationalizing process that is taking place in the second phase can be a springboard for deeper evaluation of the school curriculum.

A stronger education system is attentive to the needs of the most vulnerable students- and the post-Pandemic context offers the opportunity to address this need

The Pandemic has also highlighted the vulnerabilities of the most disadvantaged students and there is now an opportunity for systems to put in place resiliency building measures and programs; especially investing in tools to monitor the most vulnerable and socio-emotional skills programs to build resilience in students and the wider community. The most vulnerable children have relied on education systems not only for education, but also to supplement nutritional needs and to serve other social safety and monitoring functions. Prepared learners are ones that have the necessary health, welfare and protection to optimize their educational opportunities. It is important that education systems recognize the part they play in this, and the synergies between health, social protection and education. This will help to ensure that systems are in place to monitor the most vulnerable not only to ensure that they don't drop out, but also to ensure that their health and social welfare needs are attended in spite of crisis. Resiliency can also be cultivated through the school curriculum itself. Socio-emotional learning (SEL) is now widely acknowledged as critical for educational attainment and also to build internal dispositions such as self-confidence, independence and purpose, all of which can help children to recover from shocks and be more resilient (USAID 2020). Several programs have been developed to promote SEL, particularly in the aftermath of emergencies and crisis. Box 3.5 presents an example of the SEL program.

It will be important to harness the power of technology to ensure learning continuity in crisis

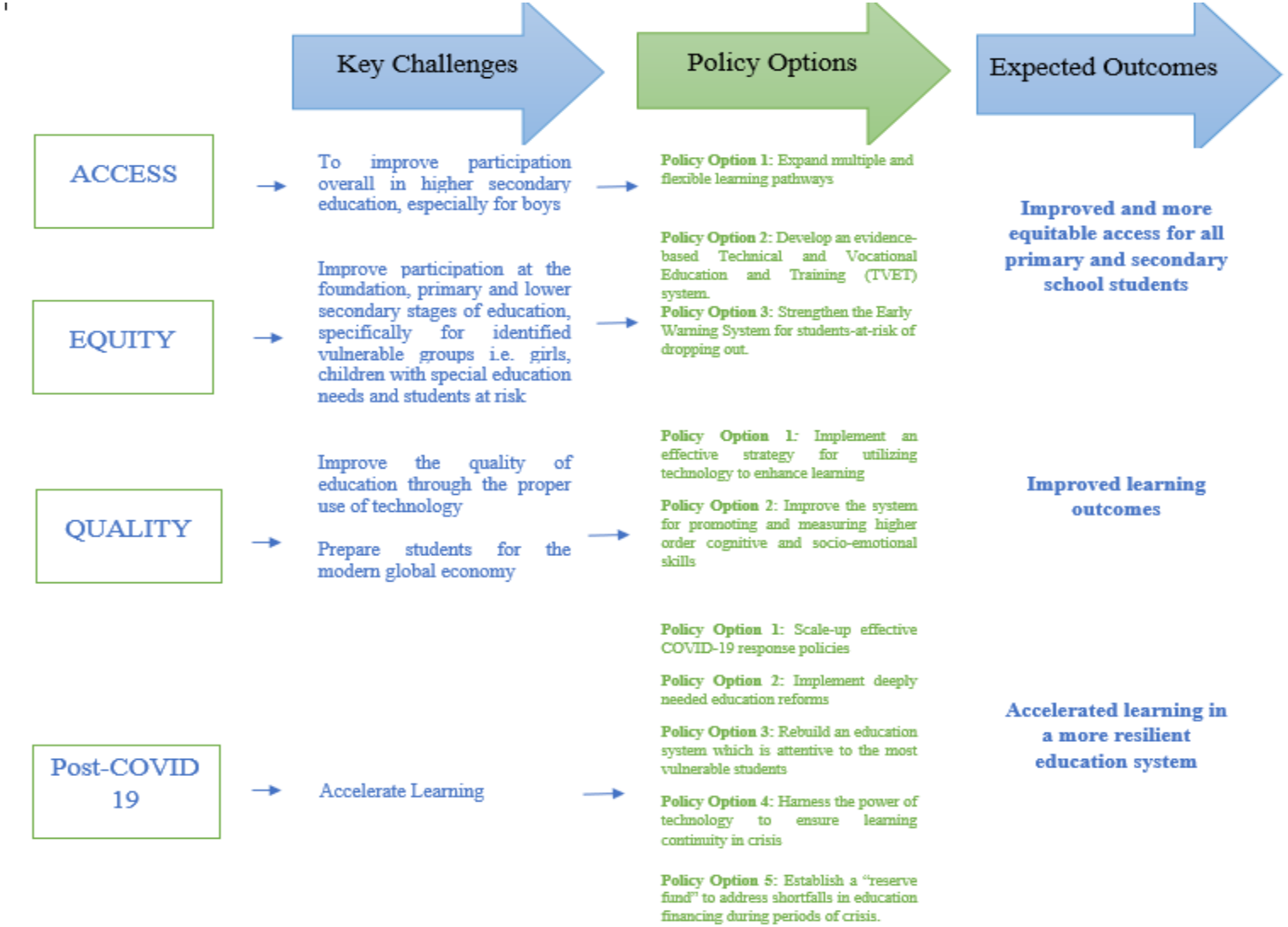
The challenge and promise of technology to deliver learning has come to the forefront in the education sector's response to COVID19; however, the promise of education technology must be considered with caution. With school closures, education systems moved quickly to deliver education remotely. Many explored options to utilize technology for teaching and learning. However, very few (if any) education systems were prepared to deliver education exclusively on digital and online platforms at scale (World Bank 2020). Even in countries and areas where internet penetration was high and digital device were widely available, transitioning to online learning was a challenge. It was even more so in countries and places were internet penetration was low and digital devices were not widely accessible. Nevertheless, policy makers and experts realized the potential of technology in education delivery and most countries,

including the Maldives made significant efforts to utilize online learning tools and platforms to continue learning during the Pandemic. For the SIDS, which are more vulnerable to natural disasters, where the population is widely dispersed and many are more remote, and where the impacts of public health emergencies like COVID are more profound, educational technology may have an even greater role to play in maintaining learning continuity and accelerating progress in learning. COVID 19 has forced students, teachers and education systems to engage with education technology more than ever before. As such, it is important to note here that the evidence from multiple well-designed studies suggests that simply equipping students with educational technology hardware has little to no effect on student learning (Ganimian, Vegas and Hess 2020; Tausan and Standard 2018). In some cases, research indicates that it may have adverse impacts (Cueto and Malamud 2015; Cristia, Ibarraran, Cueto, Santiago and Severin 2017). Nevertheless, the urgency of the moment begs a closer look at the promise of technology with a view to identifying strategies and frameworks to employ it effectively in the service of education.

It may be important Maldives and other SIDS to establish a "reserve fund" to address shortfalls in education financing during periods of crisis

A reserve fund for education may help to mitigate broader economic shocks that negatively impact education financing in the Maldives. Since the start of the COVID-19 pandemic, Governments around the world have invested over $11.8 trillion in funding to support public health systems to fight the pandemic and mitigate economic shocks (UNESCO 2020). UNESCO estimates that less than one percent ($91 billion) went to support education; regardless of the huge impact of COVID-19 on education systems worldwide. Moreover, even with projections of an economic recovery in 2021, experts project that education spending may stagnate or even decline as countries attempt to manage the budget deficits in the wake of the Pandemic (Al-Samarrai 2020). Likewise, as previously discussed, COVID-19 has had a significant impact on the Maldives' economy—resulting in a GDP contraction of approximately 19.5 percent in 2020 and with it, substantial declines in the revenues for the Government (Al-Samarrai 2020). Although the economy is projected to begin recovering in 2021, its economic structure makes it highly vulnerable to global economic shocks such as the Pandemic. Given the importance of human capital development to the Maldives' development strategy, protecting education financing must be a priority for the country. As such, it will be important that the country establishes some fiscal mechanism to mitigate the impact of economic shocks on the education sector. One such instrument may be a reserve fund, that can be utilized to address shortfalls in education funding in the event of an economic crisis.

Key Challenges in Education in the Maldives, Policy Options and Expected Outcome



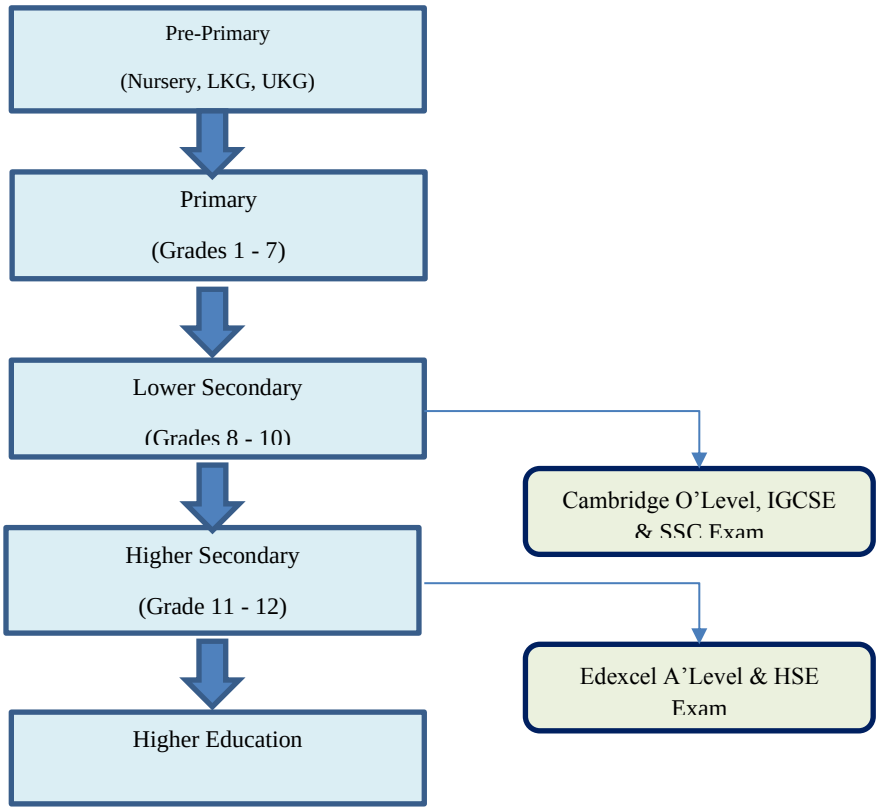
CHAPTER ONE : ACCESS AND PARTICIPATION IN FOUNDATIONAL AND GENERAL EDUCATION IN THE MALDIVES

1.1 INTRODUCTION

The Structure of the Education System

The Maldives is an archipelago nation of spectacular natural beauty. The Maldives consists of an archipelago of nearly 1,200 islands and a population of approximately 530,000 inhabitants: 430,000 Maldivians and 100,000 expatriate workers. More than 25 percent of the population live in Male', the capital, while the rest are distributed among just under 200 other inhabited islands. The Maldives had attained a gross national income (GNI) per capita of US$ 9,650 in 2019. The country ranked 104'th in the human development index (HDI) for 2019, which was the second highest HDI rank in South Asia after Sri Lanka. The Maldives is seeking to accelerate human development and economic prosperity. The expansion and development of human capital is central to the country's strategy to achieve this goal.

Figure 1.1The Structure of the Education System in the Maldives



The Maldivian education system consists of the following stages: pre-primary education (nursery, lower kindergarten, upper kindergarten, ages 3-5); primary education (grades 1-7, ages 6-12); lower secondary education (grades 8-10, ages 13-15); and higher secondary education (grades 11-12, ages 16-17) (Figure 1.1). There are two public examinations in the education system. At the end of lower secondary education students sit the General Certificate of Education Ordinary Level (GCE O/L), International General Certificate of Secondary Education (IGCSE) or Senior Secondary Certificate (SSC) examinations. At the

end of the two-year higher secondary education stage students sit the General Certificate of Education Advanced Level (GCE A/L) examination or Higher Secondary Certificate (HSC) examinations.

1.2 ACCESS AND PARTICIPATION IN EARLY CHILDHOOD EDUCATION

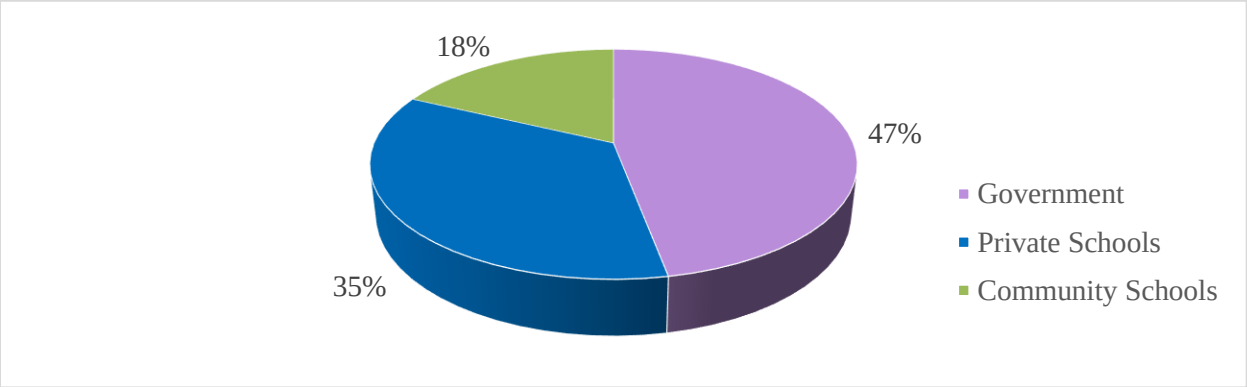
The Maldives has recognized the vital importance of early childhood education (ECE) for human capital development. Pre-school education is offered through a network of about 325 schools covering all inhabited islands (Table 1.1). Among these 194 are government schools, 61 are community schools and 70 are private schools. There are approximately 20,400 children aged 3-5 years enrolled in pre-schools. Around 9,600 students are enrolled in government schools, 3,600 students are enrolled in community schools and 7,100 students are enrolled in private schools. According to this data, 47 percent of children are enrolled in government schools, 35 percent of children are enrolled in government schools and 18 percent of children are enrolled in community schools (Figure 1.2).

Table 0.1 Enrolment by Gender and Type of School, 2018

	Total children enrolled	Male children enrolled	Female children enrolled	Number of Schools
Government Schools	9,635	5,078	4,557	194
Community Schools	3,628	1,831	1,797	61
Private Schools	7,148	3,673	3,475	70
All Schools	**20,411**	**10,582**	**9,829**	**325**

Source: Ministry of Education Statistics

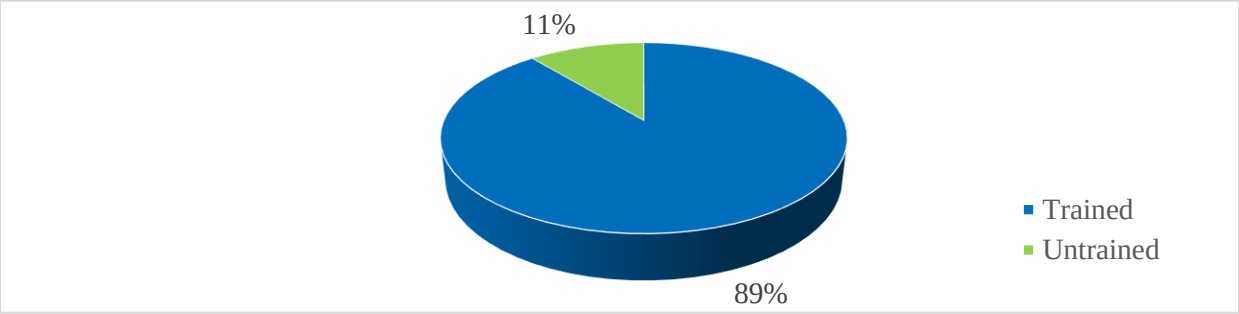
Figure 1.2 Pre-Primary Enrollment Shares Across School Types



Source: Ministry of Education Statistics

Pre-school teachers are available in all islands. Overall, there are about 1,330 teachers, of whom about 98 percent are Maldivian and about 2 percent are expatriate teachers (Table 1.2). Around 89 percent of pre-school teachers are trained and about 11 percent of pre-school teachers are untrained (Figure 1.3). The untrained teachers are entirely in the outer atolls. Nearly all pre-school teachers, over 99 percent, are female. The student teacher ratio in pre-school education is 15:1, while the ratio of students to trained teachers is 17:1.

Figure 1.3 Shares of Trained and Untrained Pre-School Teachers



Source: Ministry of Education Statistics

1.3 ACCESS AND PARTICIPATION IN PRIMARY AND SECONDARY EDUCATION

Primary and lower secondary education are delivered through a comprehensive network of government schools covering the entire country. There are 211 primary schools of which about 205 are government schools. There are also a small number of private primary schools, mainly in Male' and 1 in the Seenu atoll which is the most populous atoll after Male'. About 47,000 students are enrolled in primary schools, of whom around 16,000 students are attending schools in the Male' region and approximately 31,000 children are attending schools in the outer atolls (Table 1.2). The average primary school size is 224 students. However, school size varies widely between Male', with about 900 students per school, and the outer atolls with a statistical mean of about 160 students per school. The student teacher ratio is on average 10:1 in the Maldives, with a student teacher ratio of 9:1 in the outer atolls and a student teacher ratio of 13:1 in Male'. This is a low student-teacher ratio by international standards and reflects the demographic and geographical configuration of the country with a small population scattered over nearly 200 inhabited islands located in around 20 atolls.

Table 0.2 Primary Education: Students, Teachers and Schools in Male' and the Atolls, 2018

	Number of Students	Number of Teachers	Number of Schools	Student Teacher Ratio	School Size
Atolls	31,018	3,269	193	9	161
Male'	16,218	1,274	18	13	901
Maldives	47,236	4,582	211	10	224

Source: Ministry of Education Statistics

Participation in primary education is nearly universal. The net enrollment rate is around 96%. There is also a high degree of gender equity. Among female students the net enrolment rate is 96.3% and among male students the net enrolment rate is 95.5% (Table 1.3). The gross enrollment rate is similarly high. The overall gross enrollment rate is 96.2 percent, with a female gross enrollment rate of 96.7 percent and a male gross enrollment rate of 95.8 percent. The difference between the net and gross primary enrollment rates are small, indicating that grade repetition in primary education is low. The Maldives has a policy of automatic promotion through primary education which would contribute to the small gap between the net and gross primary enrollment rates.

Table 0.3 Primary Education: Net and Gross Enrollment Rates by Gender, 2018

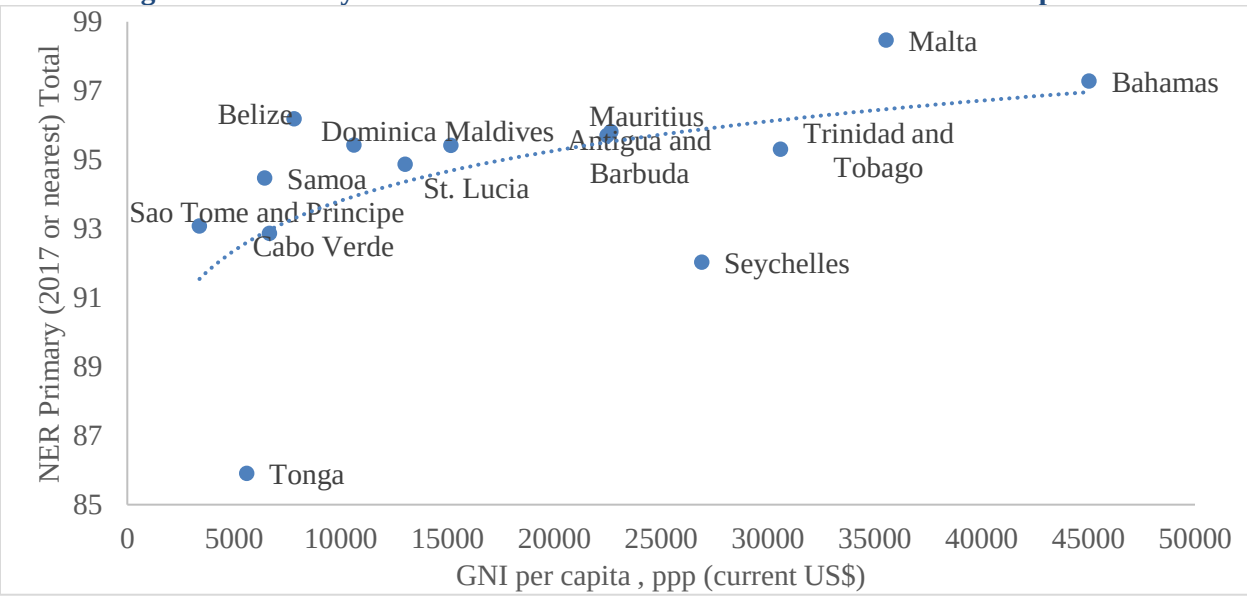
	Total	Male	Female

Net Enrolment Rate (%)	95.9	95.5	96.3
Gross Enrolment Rate (%)	96.2	95.8	96.7

Source: Ministry of Education Statistics.

Primary education enrolment is high in international perspective. The country has a higher primary education enrollment than is predicted for the country's level of per capita income, with the primary enrollment rate above the regression line for small island countries (Figure 1.4). The Maldives is on par with many small island nations that are considerably wealthier, such an Antigua and Barbuda, Mauritius, and Trinidad and Tobago. The Maldives also outperforms the Seychelles, which is a considerably richer country, by a wide margin.

Figure 1.4 Primary School Enrolment in the Maldives: International Comparison



Source: World Bank Education Statistics

Table 0.4 Lower Secondary Education: Students, Teachers and Schools in Male' and the Atolls, 2018

	Number of Students	Number of Teachers	Number of Schools	Student Teacher Ratio	School Size
Atolls	10,790	2,417	188	4	57
Male'	5,499	636	17	9	323
Maldives	16,289	2,984	205	5	79

Source: Ministry of Education Statistics

Participation in lower secondary education is widespread. About 16,000 students are enrolled in lower secondary education. Out of this number around 5,500 students are attending schools in the Male' region and approximately 10,800 students are attending schools in the outer atolls (Table 1.4). The average lower secondary school size is 79 students. However, school size varies widely between Male', with about 323 students per school, and the outer atolls where there are about 57 students per school. The student teacher ratio is on average 5:1 in the Maldives, with a student teacher ratio of 4:1 in the outer atolls and a student teacher ratio of 9:1 in Male'. These very low student teacher ratios are the result of government policy to provide lower secondary education on every inhabited island.

Lower secondary education attainment is high. The net enrollment rate is around 90.5%. Among female students the net enrolment rate is 88% and among male students the net enrolment rate is 93% (Table 1.5). The gross enrollment rate is also high. The overall gross enrollment rate is 101 percent, with a female gross enrollment rate of 100 percent and a male gross enrollment rate of 103 percent. The difference between the net and gross primary enrollment rates are larger than in primary education with the gross enrollment rates rising slightly above 100 percent, suggesting some, albeit minimal, degree of grade repetition in lower secondary education.

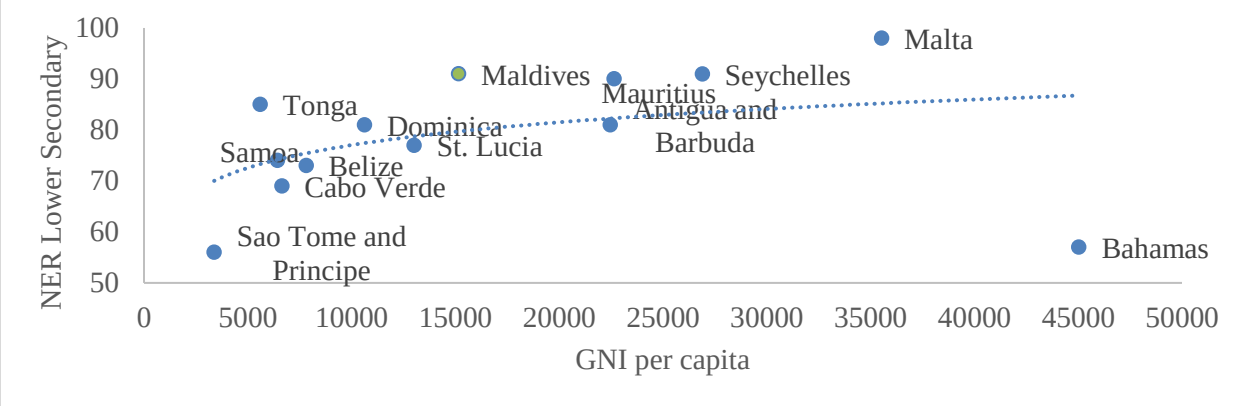
Table 0.5 Lower Secondary Education: Net and Gross Enrollment Rates by Gender, 2018

	Total	Male	Female
Net Enrolment Rate (%)	90.5	92.9	87.8
Gross Enrolment Rate (%)	101.2	102.8	99.6

Source: Ministry of Education Statistics.

Lower secondary education enrolment is high in international perspective. The country has a higher lower secondary education enrollment rate than is predicted for the country's level of per capita income, with the lower secondary enrollment rate lying above the regression line for small island countries (Figure 1.5). The Maldives is ahead of most small island nations, including some that are wealthier, such an Antigua and Barbuda, The Maldives is approximately on par with the Seychelles, which is a considerably richer country.

Figure 1.5 Net Enrollment rates Lower Secondary against GNI per capita

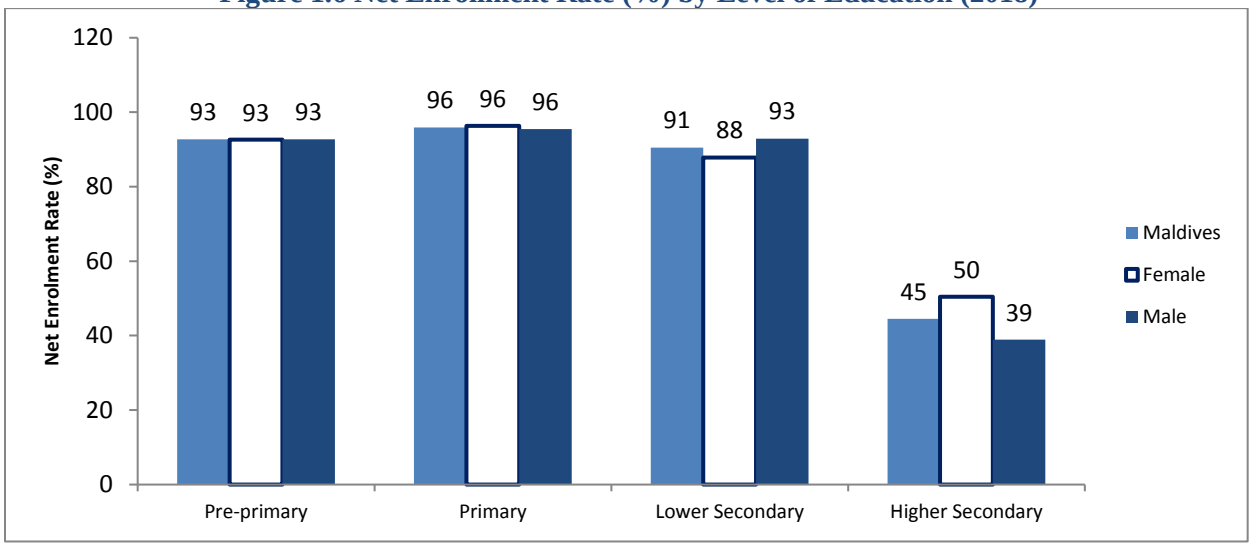


Source: World Bank Educations Statistics 2019.

The success of the Maldives in primary and lower secondary education is the result of clear government commitment and sustained policy action. The Government of Maldives (GoM) seeks to achieve universal primary education through a combination of demand-side and supply-side policies (MoE 2019). The main demand-side initiative is the provision of free education in government schools. This has decreased the cost of school enrollment and attendance for children, which is important for poorer families. The key supply-side policy is the establishment of a complete network of primary and lower schools in the inhabited islands, so that all children aged 6-12 years can attend a school in own their home island or in a neighboring island. These policies have been effective as seen in the high enrollment rates in primary and lower secondary education.

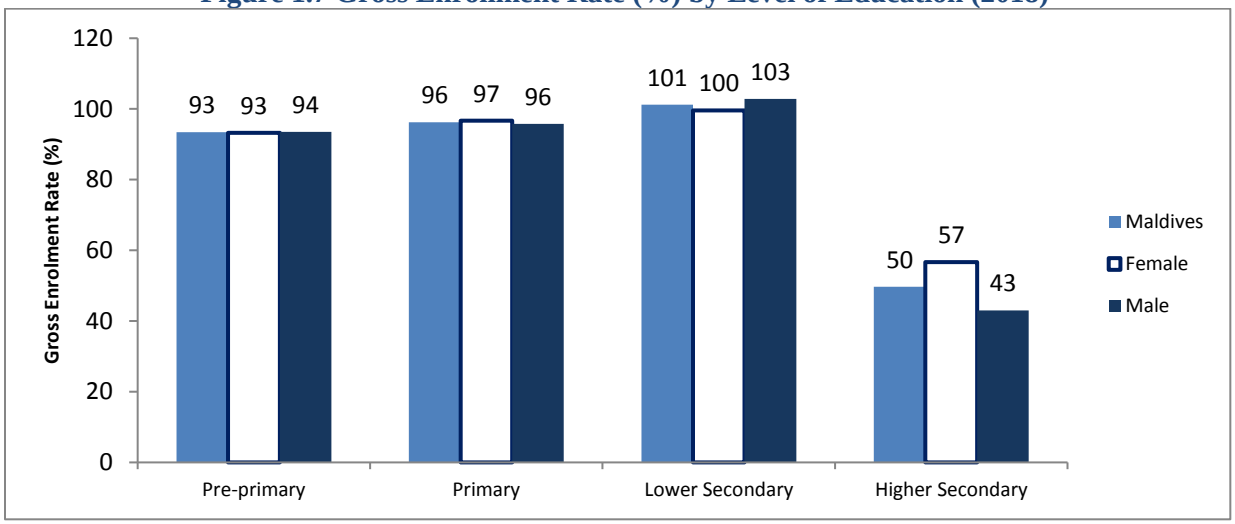
There is a steep decline in enrollment at the higher secondary education level. The net enrollment rate is 45 percent in higher secondary education (Figure 1.6a), which is considerably less than the net enrollment rate in lower secondary education. At this stage of education fewer male children are enrolled than female children. The net enrollment for boys is 39 percent and the net enrollment for girls is 50 percent. The overall gross enrollment rate in higher secondary education is 50 percent (Figure 1.6b). The gross enrollment rate for boys is 43 percent and for girls' 57 percent.

Figure 1.6 Net Enrollment Rate (%) by Level of Education (2018)



Source: Ministry of Education Statistics

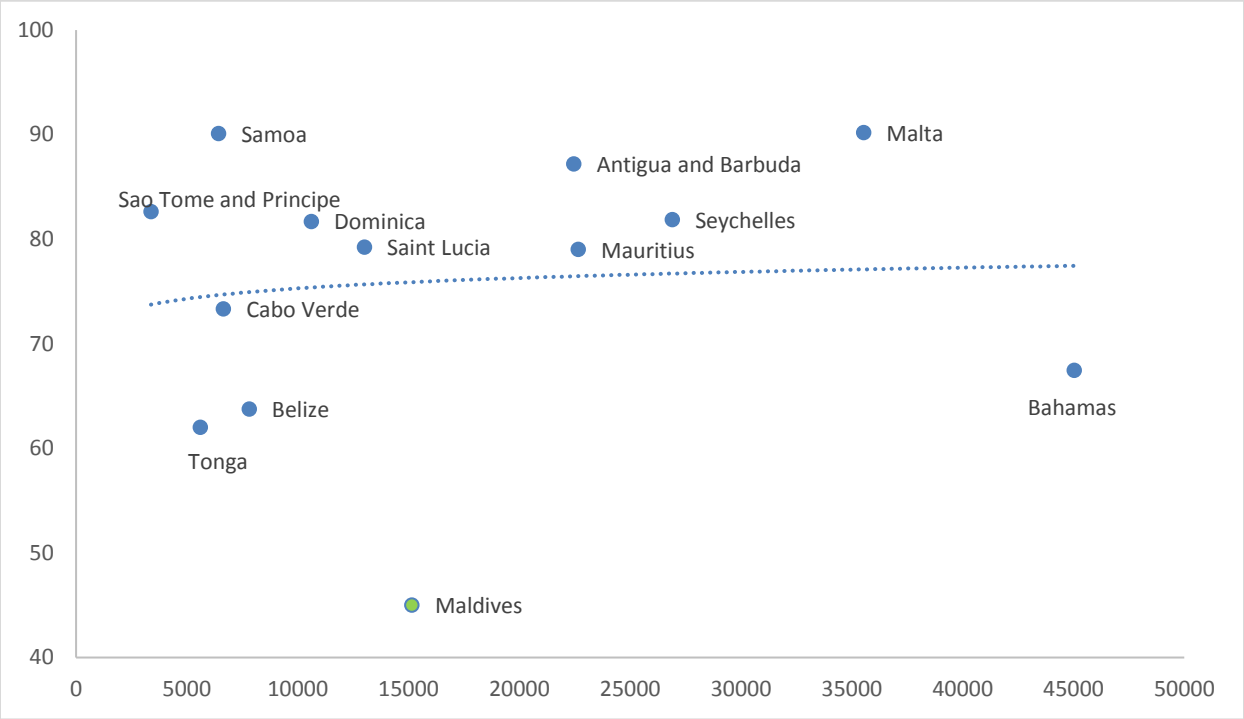
Figure 1.7 Gross Enrollment Rate (%) by Level of Education (2018)



Source: Ministry of Education Statistics

Higher secondary education enrolment is low in international perspective. The country has a lower higher secondary education enrollment rate than is predicted for the country's level of per capita income, with the higher secondary enrollment rate well below the regression line for small island countries (Figure 1.7). The Maldives is behind all small island nations, including some that are considerably poorer, such as Belize, Cape Verde, Dominica, Samoa, Sao Tome, St. Lucia and Tonga.

Figure 1.8 Net Enrollment rates Upper (Higher) Secondary Education against GNI per capita



Source: World Bank Educations Statistics 2019.

There are multiple reasons for the sharp drop in participation and weak performance in participation at the higher secondary education level. First, although higher education schools are now available in at least one island in nearly all atolls, sea travel can be difficult and expensive for children living in other islands to attend this school. Second, children aged 16 years and above, especially boys, can engage in income earning activities and may select to leave school and join the labor market. Third, some students at 16 years and above may select vocational training and technical education to formal schooling. Finally, some families are known to send their children at age 16 to schools overseas.

The numbers of Out of School Children (OOSC) at the primary and lower secondary levels in the Maldives are small by regional and international standards, whereas estimates suggest that the numbers of OOSC at the higher secondary level (15-18 years old) are high, in line with regional trends. Estimates suggest that the number of primary school age children not in school (age 6-12 years) are about 250 (122 girls representing 0.63% and 132 boys representing 0.65% of the total population) (ESA 2019-2023). At the Lower Secondary School level there are approximately 368 children (age 13-15 years): 368 children (126 girls representing 1.6% and 242 boys representing 2.9% of the total population of age 13-15 years) (ESA 2019-2023). At the Higher Secondary level, the number has not been determined but going by enrollment estimates, this number is significantly greater proportion of the age group (16-18 years) than at the Primary and Lower Secondary levels. Although there are myriad social, economic factors cause students to drop out of school, or never enroll in the first place, one key factor is physical and mental disability which means that students have special educational needs. Although precise data is lacking, estimates suggest that of the 622 students who are out of school the majority of those are children with special educational needs (ESA 2019-2023).

1.4 THE CURRENT POLICY FRAMEWORK TO PROMOTE ACCESS AND PARTICIPATION

The GoM acknowledges that the key access related challenges facing the country are to improve participation at the foundation, primary and lower secondary stages of education; specifically for identified vulnerable groups i.e. girls, children with special education needs and students at risk, and to improve participation overall in higher secondary education, especially for boys [Education Sector Plan (ESP) 2018-2023]. Polices to address these challenges are outlined in the government's policy framework for education. The first goal proposed in the ESP is "Improved Learning for all, through equitable access to quality education". In its ESP 2018-2023, the GoM identifies a number of strategies to achieve equitable access, especially for vulnerable groups at the primary and secondary levels. They are as follows:

Strategy 1: **Identify reasons for the gender gap and develop a framework to address the issues for both boys and girls**. In order to reduce the gender gap for both boys and girls a detailed analysis of the reasons for the gender gap will be undertaken and new policies developed and actioned to bridge the gap.

Strategy 2: **Integrate the monitoring of children at risk of failing/dropping out into the Maldives Education Management Information System (MEMIS), and use the lessons learnt to improve the implementation of existing policies**. The MEMIS will be used to identify vulnerable students who are at risk of dropping out of school, who have already dropped out, and children who are at risk of failing. Vulnerable children will be closely monitored through MEMIS data and the information used to diagnose barriers they face to remaining in school, and to make decisions on corrective action that must follow. Lessons learnt will be used to inform policy. Importantly, MEMIS will be strengthened to track progress of vulnerable students. However, follow up of MEMIS data has been found to be weak (ESA, 2019). Therefore, more stringent and efficient monitoring of data through MEMIS is warranted.

Strategy 3: **Develop and continue to implement flexible and additional frameworks/pathways established for students with special education needs, exceptionalities (gifted, talented, etc.), at-risk and out-of-school children (OOSC) with a focus on outer islands, and measurement of results of these students**. Additional/alternate pathways will be continuously developed and implemented to adapt to the special circumstances and life challenges of children to help them cope better with their specific situation. Additional/alternate pathways proposed by the GoM for the identified student groups are described in Section 1.5.

Strategy 4: **Strengthen public schools in the outer islands, through hiring quality teachers and providing effective methodologies of teaching and learning using ICTs**. Around 75% of the population of the Maldives lives in 200 inhabited islands which are geographically dispersed. There are intrinsic problems in providing equitable access to education for all the children in these vastly dispersed islands particularly in the sparsely populated islands in the outer rim. The government has for many years been implementing initiatives to strengthen the public schools in the outer islands. The ESP has extended the initiatives to strengthen the schools through hiring of quality teachers and through alternate teaching modalities such as multi-grade teaching and virtual classroom teaching and by supporting distance learning using ICTs.

Strategy 5: **Strengthen educational programs for children with exceptional and special educational needs through early identification, diagnosis and targeted interventions**. An early identification and intervention system is being developed and established at school level as well as for the 0-3 age group to better support such children.

The GoM's Key Initiatives to Improve Equity (Inclusive Education, Alternative Learning Pathways)

Inclusive Education

The Inclusive Educational Policy states that all students should be given equal educational opportunities regardless of their physical, intellectual, social, emotional or other conditions. The principle of inclusion devotes special attention to children with disabilities. Multiple programs and interventions have been introduced for special education needs (SEN) children, including the introduction of a competency-based curriculum addressing inclusivity; provision for pre-service teacher education and in-service training for SEN teachers; SEN target setting; and establishment of a Unit within the NIE with professional staff to implement the inclusive education program and support schools. A dramatic rise in the number of schools providing some form of education for children with SEN across the country has been seen from about 52 schools providing SEN out of the 219 schools in 2014 to 185 out of 212 schools in 2017. The focus of the SEN program is 'all schools and every child' and this has created new opportunities in terms of the quality of education and the educational interventions for children with SEN. To further strengthen the provision of a quality education for children with SEN the SEN Unit was upgraded to a new department namely the Department of Inclusive Education under the Ministry of Education in 2018. All matters relating to inclusive education are now monitored and evaluated by the Department of Inclusive Education.

The inclusive education policy now includes those who, due to various teaching and learning factors, achieve the curriculum targets and goals at an exceptionally high speed as well as children with disabilities who are unable to achieve the objectives in the most desirable manner (ESP). The policy outlines modifications to teaching methods, equipment and materials that need to be provided. It identifies roles and responsibilities of stakeholders in order to provide formal education to children with special needs, children who need additional learning support and children under special circumstances. Firm policies and procedures for the establishment of flexible and additional learning pathways for students with exceptionalities are being developed. Furthermore, an early identification and intervention system is to be formulated and established at school level for children with exceptional and special educational needs with the inclusion of the out of school 0-3 age group.

Multi-grade Teaching

Multi-grade teaching is a model commonly used to address teacher shortages, especially in the rural areas of low-income countries and this mode of teaching is particularly relevant to small schools in the outer islands of Maldives (ESA, 2019). More innovative modes of multi-grade teaching focusing on how to personalize learning and tailor it to the needs of students is also practiced widely in more advanced educational systems like in Canada, the USA, Australia, Finland among the group of top achievers in the world (Hyry-Beihammer, Hascher, 2015; ESA, 2019). Multilevel classrooms or multi-grade classrooms are student-centered, and students of diverse ability levels learn across two or more grades and are taught by the same teacher for two or more years. Teaching in multi-grade modality helps to develop students' social skills as they interact with their classmates who are of different ages and of different grade levels. Furthermore, students can have greater opportunities for breadth in their studies, be exposed to

differentiated teaching across the two grades and engage in a more democratic learning environment. The adoption of this approach is also expected to contribute to cost effectiveness in terms of teacher utilization especially in small schools while at the same time maximizing benefits to students.

Multi-grade teaching was introduced to a few schools in the Maldives in 2015 after the MoE endorsed a policy on multi-grade teaching/multi-level learning to strengthen the quality of teaching and learning in small schools of the outer islands for equitable education service delivery. The policy was adopted to help reverse the decline in enrollment in some of the outer island schools which were experiencing a reduction in the number of students due to rapid migration to the Malé region. There are 43 schools following multi-grade teaching presently. Typically, a Maldivian multi-grade class has a maximum of 20 students combining two grades. A recent analysis has shown that multi-grade classrooms are reasonably well resourced in terms of furniture and pedagogical and learning materials. Very few schools have separate libraries however and library materials are inadequate. All schools with multi-grade teaching are provided with internet facilities (although with weak bandwidth) and teachers use technology in classroom teaching when necessary. Regular monitoring of the teaching and learning process in the class takes place at the school and ministry level. Most schools have teachers with the necessary training and qualifications for multi-grade teaching, but not all. There is evidence of the positive impact of multi-grade teaching on the teaching and learning process from an in-depth case study carried out in a school in Felidhoo island in the Vaavu Atoll during the period 2015-2017 (see ESA, 2019). The impact of multi-grade teaching on student performance has not yet been analyzed but there are plans to address this through the national assessment of learning outcomes.

Virtual Classrooms

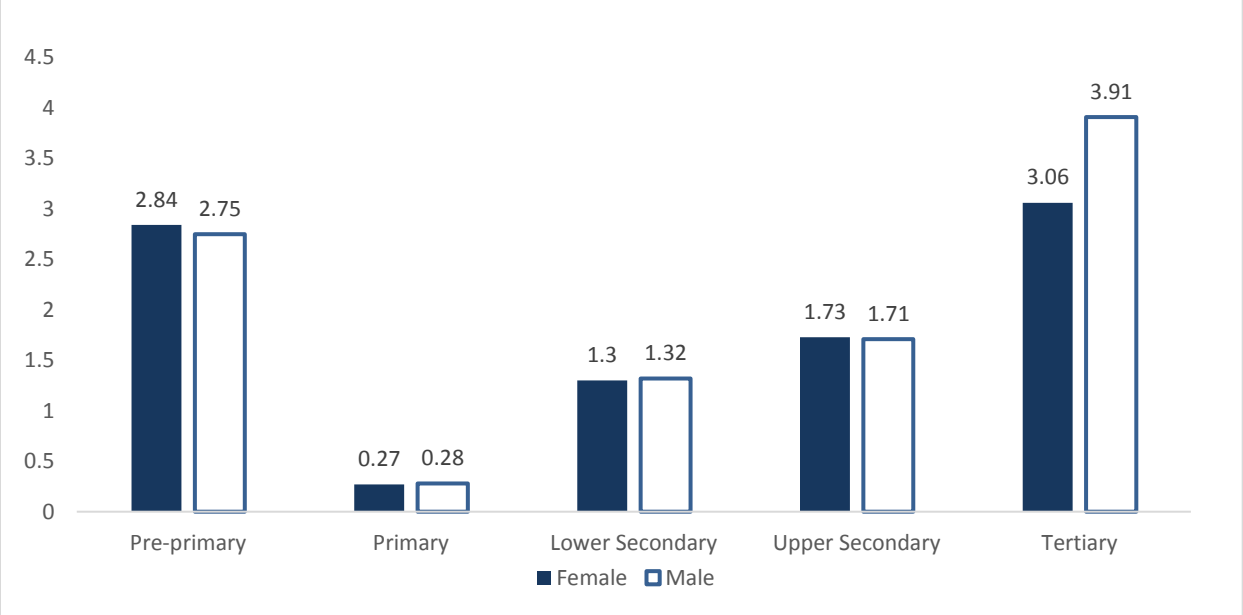
Virtual classrooms provide a teaching and learning environment where the teacher and students can interact and communicate in an online setting. It is an effective means of providing an equitable quality education to children in the remote island communities of Maldives. In 2018 virtual classrooms were set up in 9 schools from selected outer islands/atolls of Maldives. In this venture the nine schools were connected to a school in Malé. Quality teachers in Malé conducted lessons in an online setting and students in the outer islands accessed and benefitted from quality teaching. The nine schools were selected because they were poorly resourced in terms of facilities and teaching staff and had a small population of less than 50 students. The virtual classroom initiative of the MoE to improve the educational opportunities of children disadvantaged by geographic location is expected to expand as needed in the future.

1.5 THE WAY FORWARD: POLICY OPTIONS TO IMPROVE ACCESS AND PARTICIPATION

Accelerating human capital development, especially in light of the recent COVID-19 pandemic is critical for the Maldives' development goals; and to achieve this, the country must expand educational participation, especially at the higher secondary education level. Challenges in access and participation at the higher secondary school level are not unique to the Maldives-- these are faced by many upper middle-income and even high-income countries as well as many Small-Island Developing States (SIDS). The underlying causes of this issue may differ by context and culture but are not entirely dissimilar. For instance, a recent study from the Latin America and Caribbean region where this issue is prevalent suggests that one of the common reasons for drop-out, especially among boys, is weak education relevance (Josephson et al. 2018). Similarly, in OECD countries, PISA survey data found that boys were twice as likely as girls to report that school is a waste of time, and also more likely (than girls) to agree that school

has not done enough to prepare them for adult life (OECD 2015). Likewise, a 2018 study from Sri Lanka also cites educational relevance and alternate labor market opportunities as a potential reason for the steep decline in educational participation at the higher secondary level (Aturupane et al. 2018). Weak labor market relevance and other barriers to higher secondary educational participation are not insurmountable; but the hurdles are undoubtedly greater as experts forecast a decline in school enrollment rates due to COVID-19. UNESCO estimates the percentage of students at risk of dropping out has increased across regions and education levels and it is clear that the greatest threats are in post-primary education enrollment (see Figure 1.8).

Figure 1.9: Increase (percentage) in at-risk students across education levels (180 countries and territories)



Source: Authors based on UNESCO 2020

In view of these developments, there is an even greater imperative for the Maldives to focus on innovative strategies to prevent drop out and increase participation at the higher secondary level. Drawing on international best practice particularly relevant to SIDS such as the Maldives, the following section aims to provide specific evidence-based policy options for addressing the access challenges facing the country, particularly those that are relevant to the country in a post COVID-19 context.

Policy Option 1: Expand Multiple and Flexible Learning Pathways (MFP)

Multiple and Flexible Learning Pathways (MFP) can improve access to learning, particularly at the secondary level. MFP can take a variety of forms and shapes, but it is an important strategy for improving participation for students at risk of dropping out. As a UNICEF report highlights, **"**alternative modalities of secondary education delivery are used in various contexts, for example hard-to-reach rural communities with no access to nearby schools, or for adolescents with caregiving or work responsibilities that are incompatible with mainstream schooling. The formal curriculum is adapted to flexible timeframes and uses adapted pedagogical methods and materials as well as ICT-supported learning. These modalities are usually part of the formal education system and lead to certification (UNICEF 2020)". Education policy makers are also recognizing that traditional formal education systems are no longer sufficient for the complex and often competing demands of the modern world. As such, both formal and informal learning opportunities through

open, flexible and distance learning (OFDL) models are necessary elements of the modern education system (Zhang et al. 2019). Moreover, recent global events such as the COVID-19 pandemic have also made educators keenly aware of the need to constantly adapt teaching and learning practices. The shift to distance learning during this period has forced educators to experiment with tools to deliver education remotely; particularly using Information and Communications Technology (ICT). The online learning environment, which is a critical part of the modern classroom and many flexible learning models can both support and fast track a flexible learning model (Zhang et al. 2019).

Box 0.1 Flexible Learning Using ICT in Argentina

Argentina has been implementing a technology based rural school program to provide access to secondary education for its most rural students. This innovative education model is supported by teacher coordinator, and in some cases, and indigenous community facilitator. are about to finish secondary education thanks to this innovative educational model. Teaching and learning is supported by different digital technologies as educational platforms, internet connectivity and school servers. There is a full team of teachers for each specific curricular area and they are based in the urban headquarters, where they design the classes, share assignments with their students and follow up on their progress.

Source: UNICEF 2016

The Pandemic has provided a unique window of opportunity to look more closely at flexible learning models and the Maldives should develop a robust flexible learning framework. As previously discussed in this chapter, the GoM has included flexible learning options in its higher secondary education development strategy. Nevertheless, as development and implementation of this strategy is at a nascent stage and it will be useful to leverage post-pandemic momentum to develop a strong system for flexible and alternative learning. There are multiple ways to approach the design and implementation of a multiple and flexible learning system. For instance, in Australia, which has quite a developed framework for flexible learning, there are three broad types of programs; a) flexible learning designed for implementation within the mainstream education system; b) program situated within community or technical colleges and; c) separate alternative programs for students in grades 9-12 (higher secondary education) (Te Riele 2014). Regardless of the type of the program, the aim of most of these programs is to re-engage students, particularly those who would otherwise be disengaged from the mainstream education system.

The Maldives may want to examine flexible learning models in other countries as they look to further develop their own system. Many countries have adopted ODFL frameworks to improve equity for students in remote and difficult to reach areas (or those at greater risk of dropping out due to remote geography etc.). Regional frameworks, such as the Pacific ODFL framework as well as the Organization of Eastern Caribbean States (OECS) ODFL framework also provide good examples of comprehensive approaches to MFP (PIF 2018). Individual countries such as Jamaica have developed specific programs. Jamaica's program, known as the Alternative Pathways to Secondary Education (APSE) (GoJ 2020) is a comprehensive approach. See Box 1.2 for more information on this program. In Latin America, countries such as Brazil and Argentina have employed alternative learning using ICT to successfully engage students in rural and remote parts of the country (UNICEF 2020). Box 1.2 presents a brief overview of the program in Argentina. COVID-19 has ushered in an opportunity to take a closer look at flexible learning options. As the Maldives moves into the post-Pandemic period, it will be important to develop an innovative and

effective framework for flexible learning to improve participation at the higher secondary level and thus accelerate human capital development.

Box 0.2 Alternate Pathways to Secondary Education (APSE) in Jamaica

The Ministry of Education, Youth and Information in Jamaica launched an comprehensive alternative learning system known as **Alternate Pathways to Secondary Education (APSE)** in 2016**.** The MoE, GoJ describes it as "an initiative that is based on tailored curricula that enables learners to perform at his or her fullest potential based on aptitude, interest and ability. This initiative has three pathways: Pathway I (SPI), Pathway II (SPII) and Pathway III (SP III).

Students on Pathway will have access to the National Standards Curriculum (NSC) through grades seven to 13 as per the appropriate syllabi. This pathway allows students to access the necessary exit examination based on their abilities inclusive of the Caribbean Secondary Examination Certificate (CSEC), City and Guilds, Caribbean Vocational Qualification (CVQ) and the National Vocational Qualification of Jamaica (NVQJ).

Support is integral for all students to excel and this is indicative of Secondary Pathway II. It isn't permanent. Pathway II is a two-year transitional program that aids students who might need additional instructional support. There will be an evaluation at grade eight which will determine the crossover into either SP I or SP II.

The Secondary Pathway III supports students who have not mastered the Grade Four Literacy and Numeracy examination. This pathway will be taught through a curriculum in the following subjects: mathematics, English language, communication, social studies and science. Their academic journey will also be enhanced with personal empowerment, technical and vocational instruction, as well as the performing and creative arts. At grade nine, a career interest inventory will be administered to determine their path under the Career Advancement Program (CAP)".

The Career Advancement Program (CAP) is an initiative under the ministry that seeks to create opportunities for students ages 16 to 18 who are currently in secondary schools or have graduated. It is offered at selected secondary schools, and other private and government centers across the island. Under CAP, students may seek to advance through three pathways: the technical, traditional and general pathways. The traditional and technical components are offered at 110 centers across the island while the general Pathway is facilitated through Jamaica for Life Long Learning (JFLL).

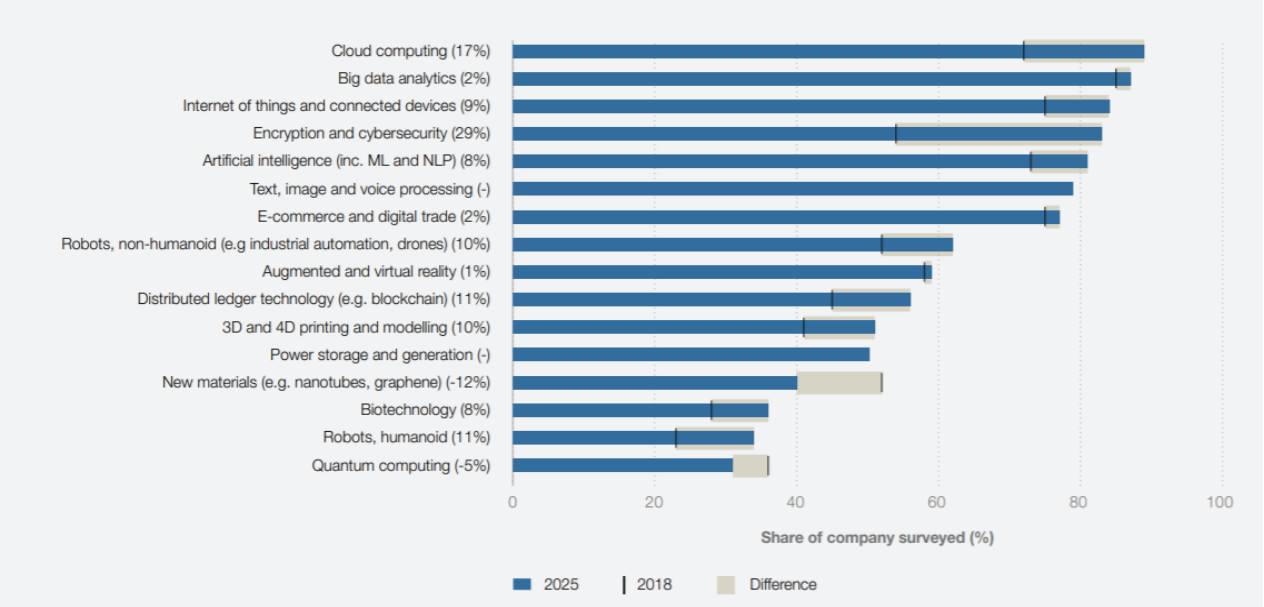
Source: Excerpt from Government of Jamaica's Ministry of Education, Youth and Information website on APSE (GoJ 2020).

Policy Option 2: Develop an evidence-based Technical and Vocational Education and Training (TVET) system.

TVET opportunities at the higher secondary level expand learning pathways for students and ease the school-to work transition. As discussed above, weak relevance of the school curriculum is often cited as a reason for the high-dropout rates at the higher secondary level, especially for boys. This is particularly true when there is an abundance of alternate labor market opportunities. While these opportunities may not have long term advantages, immediate earnings and a disengaged attitude to school renders them an attractive prospect for some students. On the other hand, pre-employment TVET, when properly planned and implemented has the potential to address these issues by a) providing labor market oriented higher-secondary schooling and; b) preparing students to the world of work while the complete their formal education. Moreover, the evidence suggests that there is a positive correlation between enrollment in TVET at the higher secondary level and per capita income (Almeida et al. 2012); and between the proportion of

TVET students at the post-secondary level and per capita income (Pavlova 2014). In fact, pre-employment TVET has been credited with helping East Asian economies industrialize (Almeida et al. 2012). Highly developed countries also have long considered TVET as an important strategy to build human capital and prepare students for the labor market (Almeida et al. 2012; OECD 2010).

Figure 1.10: Technologies likely to be adopted by 2025 (by share of companies surveyed)



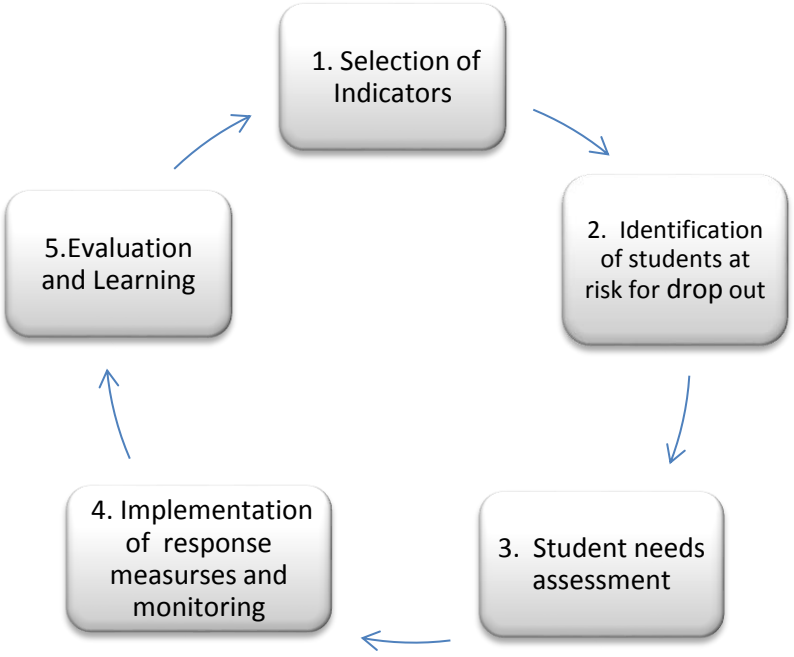
Source: WEF 2020

Science, Technology, Engineering and Mathematics (STEM) subjects are particularly crucial for transition to the workplace of the future. STEM skills are defined as "those skills expected to be held by people with a tertiary-education level degree in the subjects of science, technology, engineering and maths" (European Comission 2014). They include "numeracy and the ability to generate, understand and analyse empirical data including critical analysis; an understanding of scientific and mathematical principles; the ability to apply a systematic and critical assessment of complex problems with an emphasis on solving them and applying the theoretical knowledge of the subject to practical problems; the ability to communicate scientific issues to stakeholders and others; ingenuity, logical reasoning and practical intelligence"(European Commission 2014). Although employers are placing an increasing premium on individuals with such skills, global data suggests that there is a widespread shortage a shortage of qualified workers (EMSI 2018). These shortages are also likely to increase, as a recent survey conducted by the World Economic Forum indicates that companies are projected to adopt technology at a rapid pace (see Figure 1.10) (WEF 2020). Moreover, COVID-19 has accelerated the need for these skills as companies rapidly moved to digitalization and automation of tasks in response to the Pandemic (WEF 2020). While demand for these skills rise, education policy makers are also keenly aware that limited access to tertiary education may serve as a potential barrier to entry for STEM skilling. Accordingly, experts suggest that "additional entry points into STEM occupations outside of the higher education system could be exploited to address recruitment difficulties and skills shortages (European Comission 2014)". In light of these current and anticipated developments in future work, it will be important for policy makers to consider how best to promote STEM knowledge and skills through alternate and flexible learning pathways.

The Maldives should invest further in developing evidence-based STEM and TVET as viable learning pathways, particularly in a post-COVID 19 context. The Maldives has already begun exploring the use of STEM education and TVET to expand learning opportunities. However, as one regional policy document on emphasizes, "the need to understand and respond to the critical linkages between labor market/industry needs and appropriate training cannot be over emphasized, if students are to be provided with learning opportunities relevant to their future (PIF 2018)". The successful use of STEM and TVET to expand learning opportunities rests in the strong alignment of these systems with the needs of the labor market. This, in turn, requires research on the labor market needs in the country and the development of evidence-based STEM education and TVET strategies that are aligned with these needs. The post COVID19 environment also provides an opportunity for STEM education TVET to better serve the labor market. This includes ensuring that the TVET programs "facilitate the acquisition and development of foundational cognitive, socioemotional, and digital skills that are likely to be increasingly valued in the post-COVID19 workplace (World Bank 2020). As such, policy makers are looking to STEM education and TVET as strategies for accelerating human capital post COVID 19. As the Maldives looks to develop human capital post-COVID 19, it will be important to focus on expanding the development of labor market oriented STEM education to the atolls and promoting a sound TVET system.

Policy Option 3: Strengthening the Early Warning System for Students-At-Risk of Dropping Out.

Figure 1.11 The Five Steps in Setting up an Early Warning System (EWS) for Students At- Risk for Dropping Out



Source: UNICEF 2018

Taking proactive measures to prevent school drop-out is a particularly important policy imperative in light of COVID-19. As Figure 1.8 above indicates, experts project a significant increase in school drop-out at all levels, due to the COVID-19 pandemic. These projections are based on global evidence from previous crisis situations as diverse as the Ebola epidemic in West Africa to Hurricane Katrina in the United

States; all of which led to the increase in drop-out rates, especially for at-risk students (UNESCO 2020b). Moreover, available evidence indicates that as the pandemic continues, parents may be more hesitant to re-enroll their children—in fact, in one survey, as many as 88 percent of parents in France, 91 percent in Kuwait and 88 percent in Colombia expressed concern in sending children back to school (UNESCO 2020b). To protect gains already made and address the ongoing challenge of access at the secondary levels, it will be especially important for the Maldives to ensure that an early warning system is in place to monitor and prevent school drop-out.

An Early Warning System (EWS) is a proven tool that may address the challenge of school-drop out in the Maldives. EWS is a means of identifying students at risk of dropping out and providing the necessary remediation and support aimed at preventing drop out (OECD 2010). Global evidence suggests that these systems work in various contexts, but within the following set of parameters: i) a drop-out rate below 10%; ii) schools that have in place at least one teacher or staff in charge of vulnerable students (a point person in school) and; iii) schools that can call upon external social service to support the monitoring process (UNICEF 2018). Figure 1.9 presents the main steps involved in developing a comprehensive EWS. First, a set of indicators should be identified as "red flags" for student at-risk of dropping out. Next, at-risk students in the student population should be identified on this basis. Third, these students must be assessed to understand reasons for their drop-out and provide the necessary (and targeted support) to prevent drop out. Fourth, there response interventions must be designed to support student retention. Finally, each country will face its own challenges in supporting student-at-risk of dropping out. "Most dropouts follow identifiable pathways through the education pipeline" (Jerald, 2006 from RTI 2020). Documenting challenges and lessons learned and feeding this back into the EWS system will help to ensure that the EWS is highly effective (UNICEF 2018). The Maldives has some features of an EWS in place by way of its 2016 child centered attendance policy (GoM ESA 2019). It may be useful to build on this existing system to create a more comprehensive one that can monitor and track students at risk for dropping out and also implement responsive measures to address drop out.

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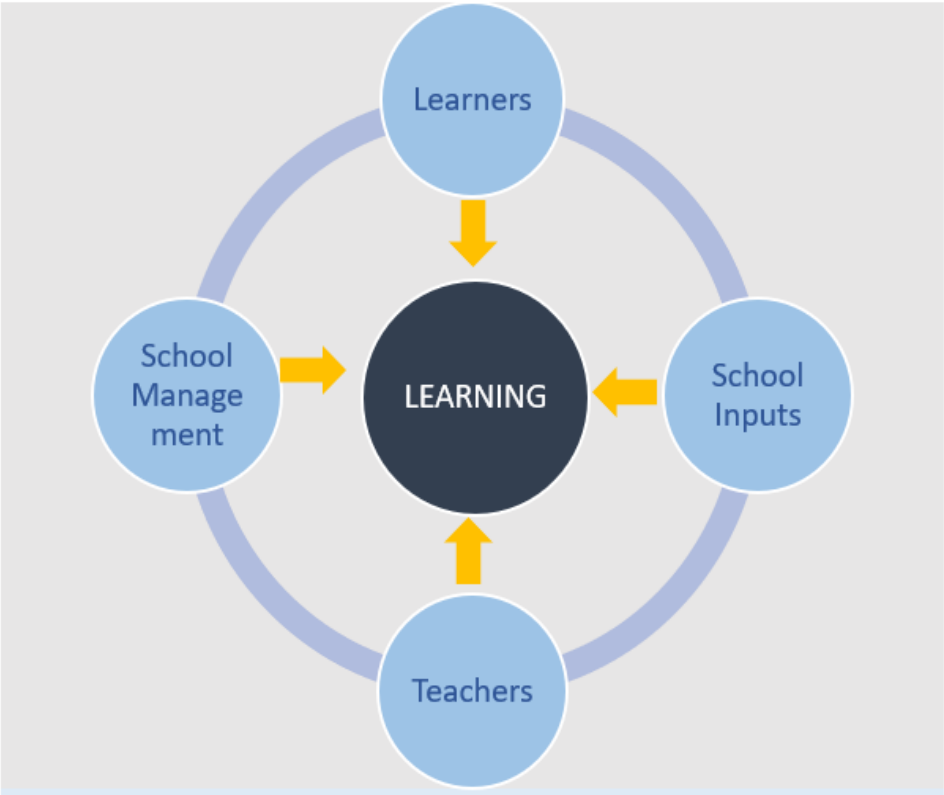
CHAPTER TWO: EDUCATION QUALITY IN THE MALDIVES

2.1 INTRODUCTION

Education has long been advocated as a central determinant of economic and social development, and with good reason. It is well-known that education promotes employment, earnings, health, and reduces poverty for individuals. For societies, it is a dominant pre-requisite for economic growth; and has multiple social benefits as well, including strengthening institutions and promoting social cohesion (Hanushek and Woessman 2020; Barro and Lee 2013). However, it is now equally well-established that these benefits of education largely depend on the quality of education, as measured by learning outcomes and socio-emotional skills (World Bank 2018, Hanushek and Woessman, 2012).

Improving the quality of education, as measured by learning outcomes, is a central challenge facing the Maldives. The country has made significant progress in expanding access to education in the last few decades. However, learning outcomes are moderate. The global expansion in schooling has camouflaged a deeper issue which also applies to the Maldives: schooling is not producing adequate learning (World Bank 2018

Figure 2.1 Determinants of Learning



Source: Authors, adapted from World Bank 2018.

The main determinants of learning are learners themselves, the quality of inputs, the quality of school management and the quality of teachers (World Bank 2018). Figure 2.1 presents the main factors that contribute to "learning". Learners do not arrive ready to learn at school, particularly the most disadvantaged

students. This is where strong early childhood programs can level the playing field and prepare all children to learn and optimize their educational opportunities. The quality of inputs, includes school infrastructure, school curriculum, textbooks and teaching materials and technology for education. School management refers to school leadership and the enabling environment, including quality assurance mechanisms and school-based management policies. Finally, a key ingredient for learning, is the quality of teachers. The proper measurement of learning, or learning assessment, is essential to understanding whether and how these quality inputs are contributing to learning. Table 2.1 presents a summary of the current investments in education quality and learning assessments in the Maldives.

Table 0.1 Mapping Investments in Education Quality in the Maldives

Investments in Inputs	Investments in School Management	Investment in Teachers	Investments in preparing learners	Measurement of Learning
-School infrastructure facilities **-Curricula Reform and implementation (and multi-grade teaching)** **-Textbooks, teaching and learning materials** **-Technology for education**	-The quality Assurance Accountability Framework (SIQAAF) -Principal's leadership training and management	-Pre-service teacher education -Teacher resource centers -Compulsory School-Based Professional Development	-Access to 2 years of pre-primary education	-Classroom based assessment -national examinations -GCE O/A level examinations -National Assessments of Learning Outcomes (NALO)

Source: Authors, based on MoE 2018

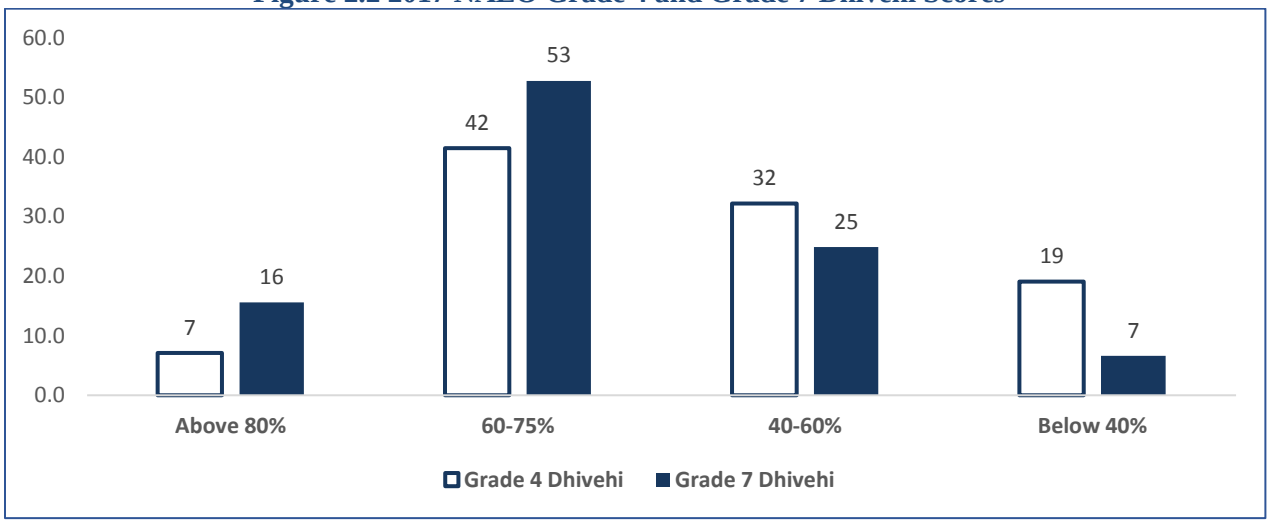
2.2 CURRENT STATUS: LEARNING OUTCOMES IN GENERAL EDUCATION

The main measure of learning outcomes in the Maldives is the National Assessment of Learning Outcomes (NALO). NALO is a standardized assessment administered to children in Grades 4 and 7 to assess the quality of education in the Maldives. NALO assesses learning in three subjects, English language, mathematics, and Dhivehi. In 2015, the GoM established a Quality Assurance Department (QAD), and in parallel, launched a re-designed and improved NALO. Since the establishment of the QAD, and the launch of the new NALO, the MoE has administered three rounds of NALO exams, in 2015, 2016 and 2017. An analysis of the results of these examinations, both the most recent round, and a comparison over the three years, provides a good indication of the current status of learning outcomes in the Maldives, and reveals trends in learning outcomes by gender and across atolls over time.

The most recent NALO (2017) results suggest that much room for improvement in learning outcomes across all subjects. In the 2017 Dhivehi Grade 4 language assessment, the national average score was 57 percent. A further breakdown of these results indicates that only 7.1 percent of Grade 4 students achieved above 80 percent; the majority of students (32%) got between 40 and 60 percent and about 19% of students

failed to achieve a minimum pass percentage of 40 (See Figure 2.2). Similarly, for Grade 7, the mean performance of students stood at about 66 percent. 16 percent of students of scored above 80 percent; with the majority of students scoring between 40 and 60 percent, and about 7 percent of students failing to achieve the minimum passing score of 40 percent (See Figure 2.2).

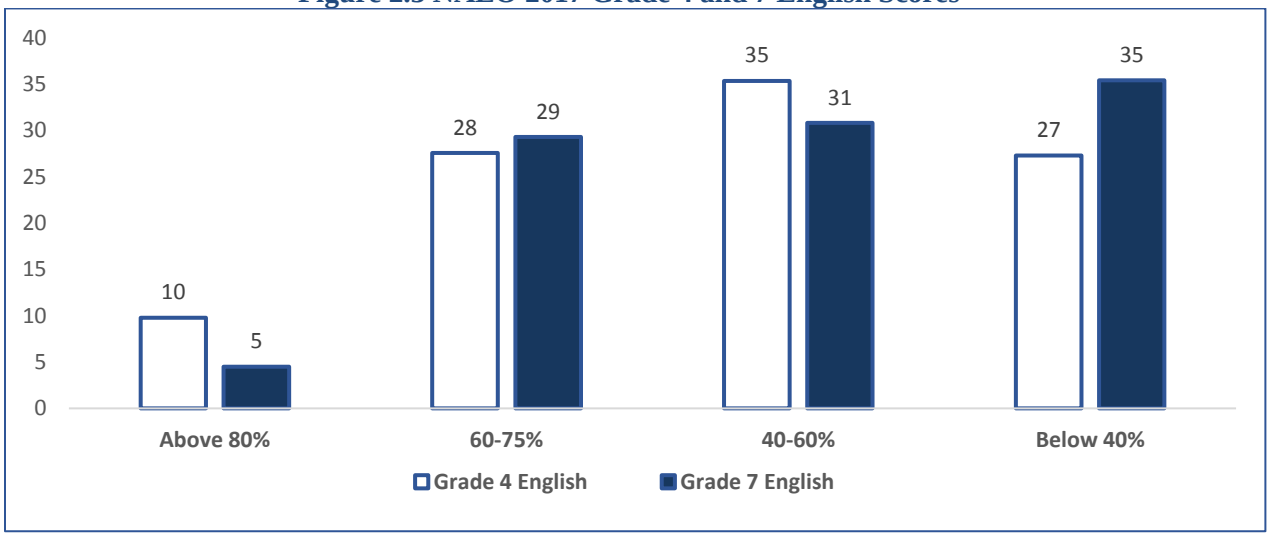
Figure 2.2 2017 NALO Grade 4 and Grade 7 Dhivehi Scores



Source: Authors, based on MoE 2018

English language learning outcomes are generally weak. In NALO 2017, the national average Grade 4 score was about 53 percent. A further breakdown of these results shows that while 10 percent of students achieved above the 80 percent mark, over a quarter of students (28 percent) failed to achieve the minimum pass percentage of 40 in Grade 4 English language (See Figure 2.3). On the Grade 7 English language assessment, only 5 percent of students achieved over 80 percent; and even greater percent of students, as compared to Grade 4, (35 percent) failed to achieve the minimum passing percentage of 40 (See Figure 2.3).

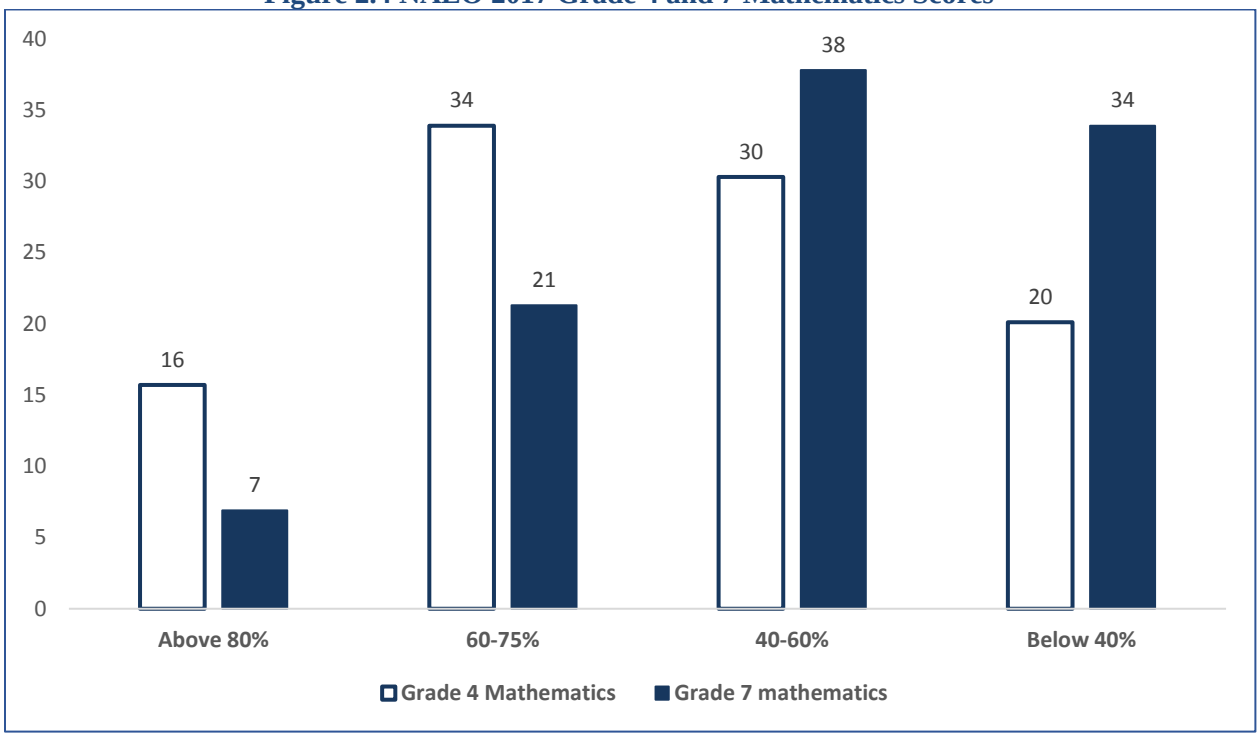
Figure 2.3 NALO 2017 Grade 4 and 7 English Scores



Source: Authors, based on MoE 2018

Likewise, learning outcomes in mathematics are also weak. The national average for the 2017 NALO Grade 4 Mathematics was 57 percent. A further analysis of these results show that while 16 percent of Grade 4 students achieved over 80 percent; a fifth of students (20 percent) failed to achieve the minimum passing score of 40 percent. Similarly, the national average score for Grade 7 mathematics hovered around 49 percent. While 7 percent of students achieved over 80 percent; roughly a third of students (34 percent) failed to achieve the minimum passing score of 40 percent (See Figure 2.4).

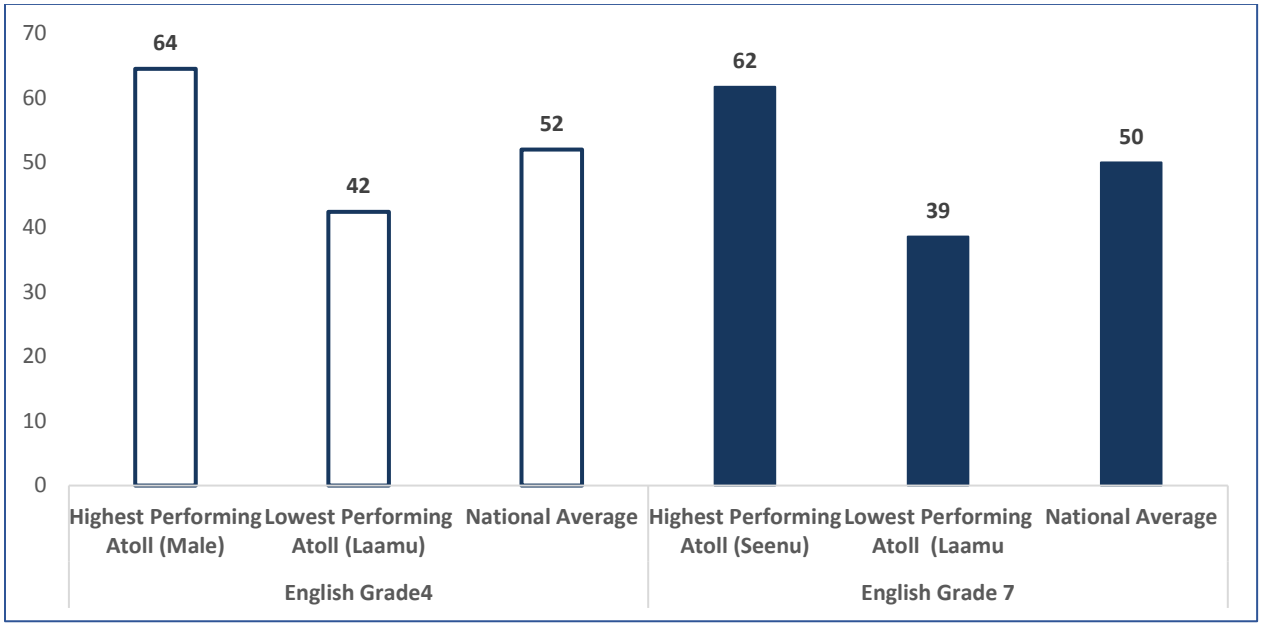
Figure 2.4 NALO 2017 Grade 4 and 7 Mathematics Scores



Source: Authors, based on MoE 2018

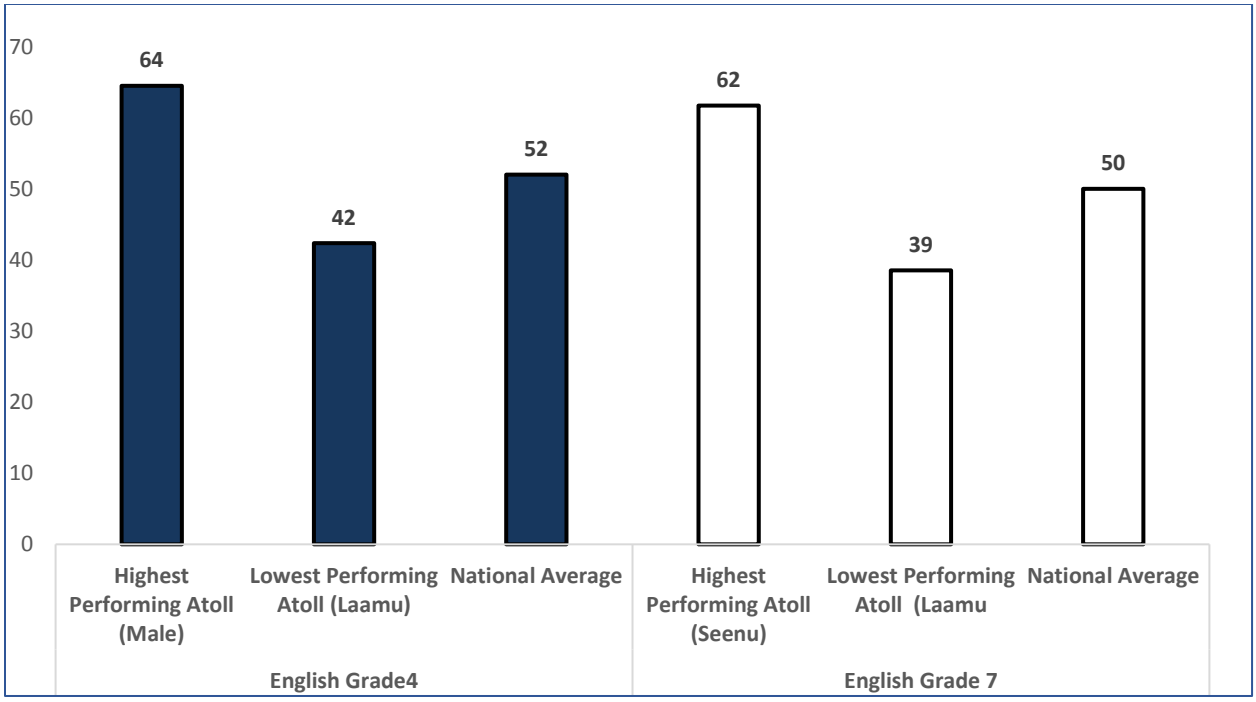
There are also significant geographical (atoll-wise) discrepancies in learning outcomes, particularly in English and mathematics. As Figure 2.5 and 2.6 display, there are significant gender disparities among the atolls in English language performance, at both Grade 4 and Grade 7 levels. At both grade levels, Male, Seenu Atoll, and Gnaviyani Atoll perform significantly better than the Laamu Atoll, the lowest performer. Specifically, for Grade 4 English, Male scores highest at 65%, followed by Seenu Atoll (64%) and Gnaviyani Atoll (60%). Laamu Atoll, on the other hand, scores about 22 percent less, at 42 percent, closely followed by Faafu Atoll (43%) and Noonu Atoll (43%). Likewise, for Grade 7 English, Seenu Atoll has the highest score of 62 percent, followed by Male' (61%) and Gnaviyani Atoll (61%). In contrast, Laamu Atoll has the lowest score of 39 percent. Similarly, for mathematics, for Grade 4, the highest Mathematics scores are found in Vaavu Atoll (63%), followed by Seenu Atoll (63%) and Male' (63%). On the other hand, Faafu Atoll has the lowest score (49%), followed by Laamu Atoll (49%). For Grade 7, Meemu Atoll has the highest score of 57 percent, followed by Seenu Atoll (55%). Alif Dhaalu Atoll has the lowest score (41%), preceded by Laamu Atoll (43%). These results suggest that there are clear atoll-wise disparities in learning outcomes, with significant disparities in learning outcomes between Atolls, and some Atolls consistently performing at the top end of the performance spectrum, and others showing consistent weakness in learning outcomes.

Figure 2.5 NALO 2017 Dhivehi Grade 4 and 7 Scores, by differences in high and low performing Atolls



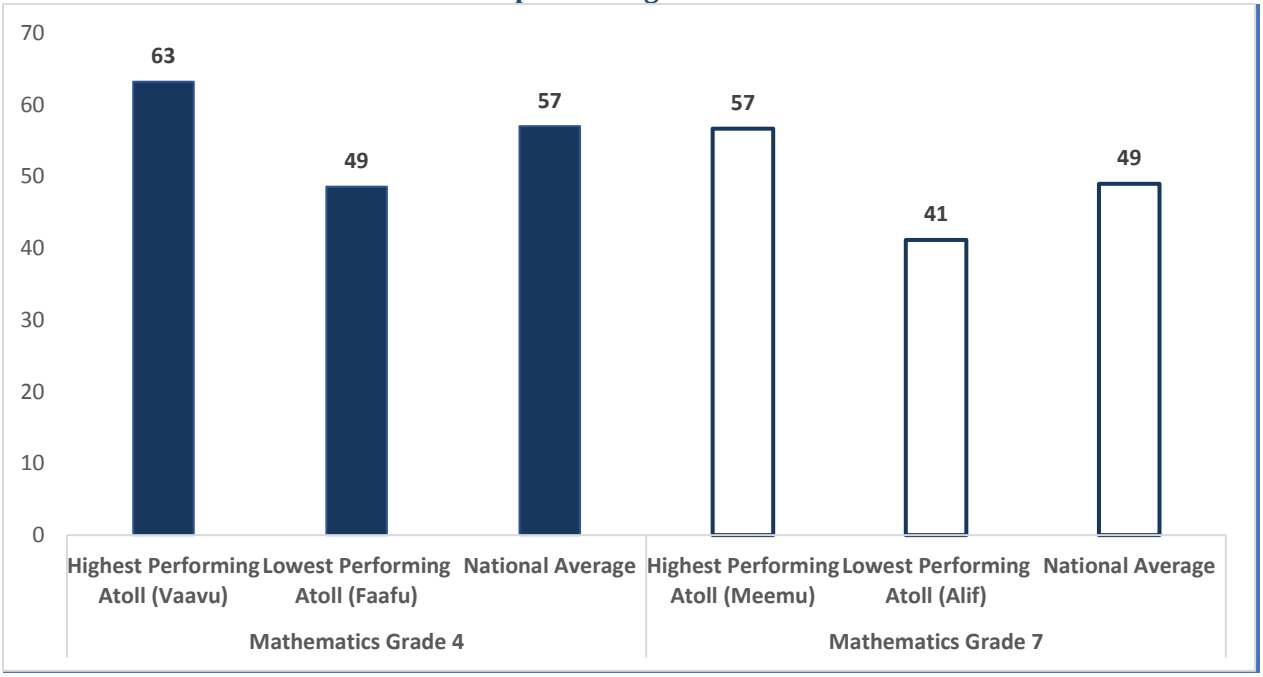
Source: Authors, based on MoE 2018

Figure 2.6 NALO 2017 English Grade 4 and 7 Scores, by differences in high and low performing Atolls



Source: Authors, based on MoE 2018

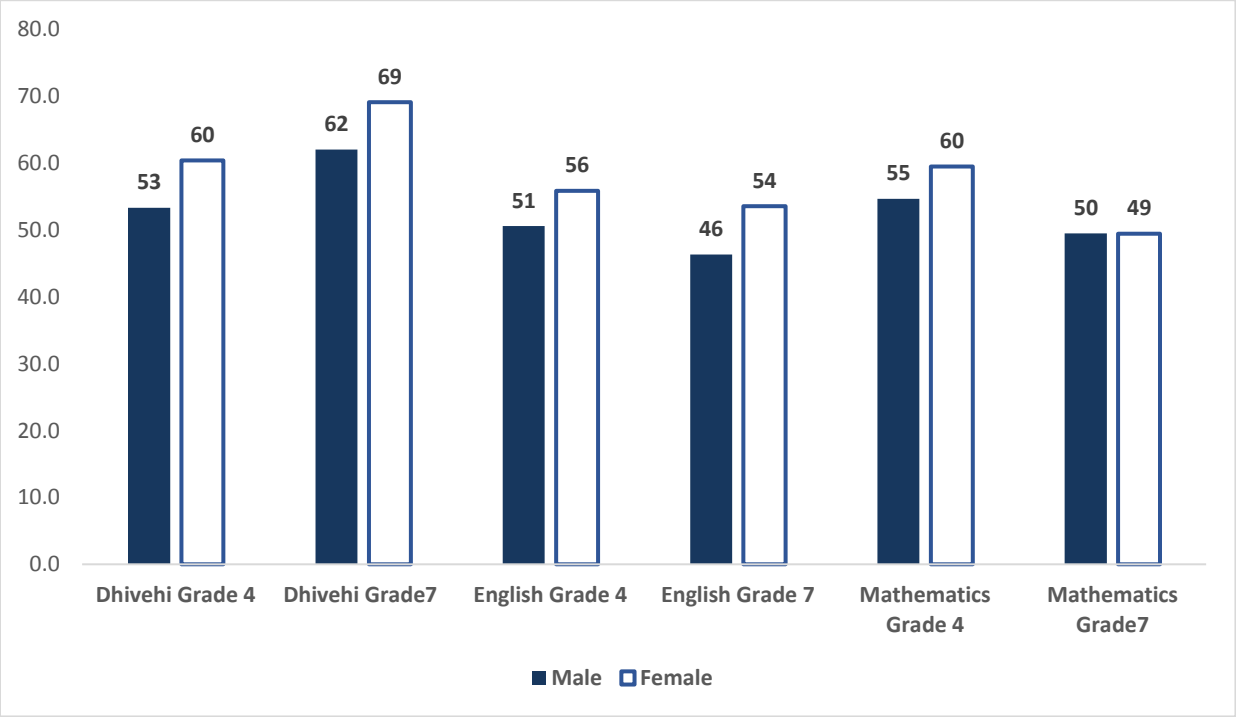
Figure 2.6 NALO 2017 Mathematics Grade 4 and 7 Scores, by differences in high and low performing Atolls



Source: Authors, based on MoE 2018

Gender analysis indicates that girls outperform boys at both levels, across all subjects, except for Grade 7 mathematics. Gender analysis of the NALO results indicates that for Dhivehi, English language, and mathematics, girls consistently outperform boys in both the Grade 4 and Grade 7 assessments. For Grade 4 Dhivehi, female students outperformed their male counterparts with an average score of 60 percent, compared to the national average of 53 percent for male students (See Figure 2.8). Similarly, in Grade 7 female students outperformed, at the national level with an average score of 69 percent, compared to a score of 62 percent for male students. Likewise, in English and mathematics, as Figure 2.8 indicates, girls outperform boys. On English, female Grade 4 students outperformed with an average score of 56 percent when compared to a score of 51 percent for male students. For Grade 7 English, female students outperformed, with an average score of 54 percent, compared to a score of 46 percent for male students. Finally, Grade 4 mathematics results show a very similar trend, with female students in Grade 4 outperforming male students with an average score of 60 percent compared to a score of 55 percent for male students. The Grade 7 mathematics level is the only exception to this trend: there were no significant gender differences in performance, with female students only slightly outperforming male students, with a national average score of 50 to 49 percent respectively.

Figure 2.7 2017 NALO Average Scores by Subject, Grade and Gender



Source: Authors, based on MoE 2018

2.3 EVOLUTION OF LEARNING: TIME TREND OF LEARNING IN THE MALDIVES, BY LEVEL OF EDUCATION AND GENDER (2015-2017)

An historical perspective shows clear progress in learning outcomes over time. A look back over the last two decades reveals clear progress in education outcomes. As Table 2.2 shows, in 2005 pass rates in GCE O-levels stood at about 26 percent (26 for boys and 25 percent for girls) 2, with boys slightly outperforming girls. In 2007 this had risen to 35 percent (37 percent for girls and 33 for boys), with a reversal in the gender gap in outcomes favoring girls. As Table 2.3 shows, these trends continued, with the pass rate increasing to 46% in 2015 and to 58% in 2017.

Table 0.2 Proportion of Students Passing the General Certificate of Examinations Ordinary Level (GCE O/L), 2007-2010

Year	2007	2008	2009	2010
Boys	26	25	31	33
Girls	25	29	33	37
Maldives	26	27	32	25

Source: Aturupane et al. 2012

However, early gains have leveled off, and more recently, progress has been mixed. On the other hand, as Table 2.4 shows, there has been no clear improvement in learning outcomes on the most recent Grade 4 and Grade 7 NALO assessments; with performance improving in certain subjects and declining in others, depending on the grade. It is important to note here that new curricular standards were implemented by the time the 2017 NALO was conducted, which may have ultimately had an impact on the 2017 NALO results.

Table 0.3 General Certificate of Examinations Ordinary Level (GCE O/L) Enrollment and Passrates (2015-2017)

	2015			2016			2017		
	Candidates	**Passed**	**% Pass**	**Candidates**	**Passed**	**% Pass**	**Candidates**	**Passed**	**% Pass**
Republic	5,272	2,409	46	5,498	3,272	60	5,220	3,015	58
Male	1,665	1,031	62	1,238	1,238	69	1,617	1,162	72
Atolls	3,607	1,378	38	2,034	2,034	55	3,603	1,853	51

Source: MoE 2019

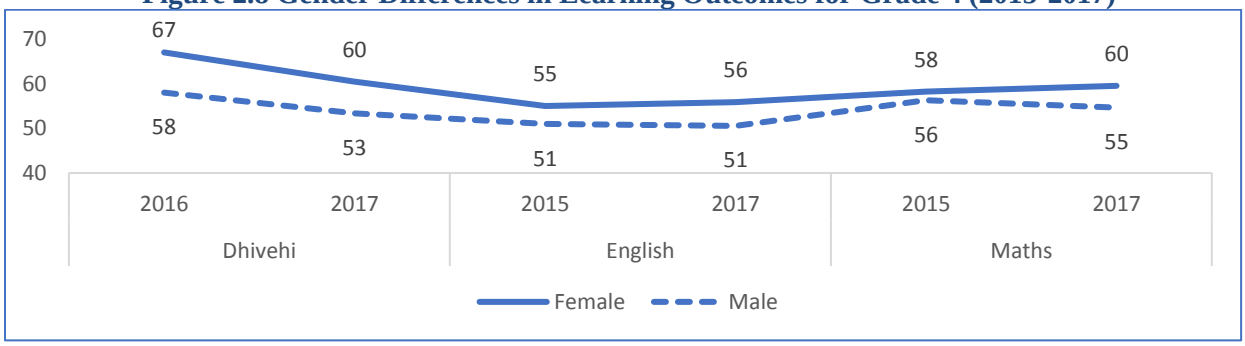
Table 0.4 Student Achievements in Dhivehi, English and Mathematics for Grades 4 and 7 (2015-2017)

	Dhivehi			English			Mathematics		
	2016	**2017**	**%change**	**2015**	**2017**	**%change**	**2015**	**2017**	**%change**
Grade 4	62	57	-5	52.9	53.2	0.3	57.5	57	-0.5
Grade 7	57	66	9	51.1	49.8	-1.3	45	49	5

Source: MoE 2019

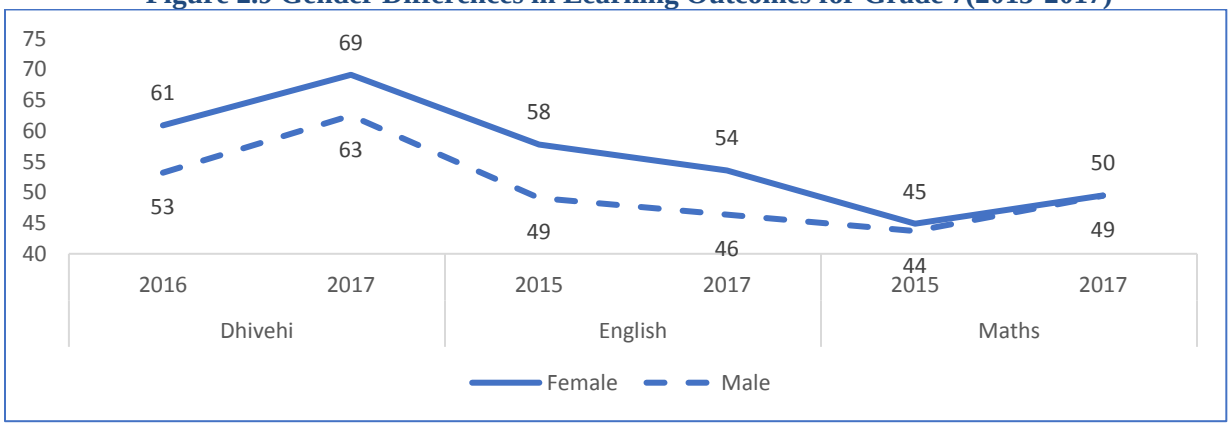
There are also consistent patterns of gender differentiation in learning outcomes over time, with females performing better than their male counterparts across multiple years, with the exception of mathematics. In all subjects, females appear to be outperforming their male counterparts over time, as indicated by the NALO results for Grade 4 and Grade 7 (See Figures 2.9 and 2.10). This pattern is consistent across all subjects with the exception of Grade 7 mathematics, where there is no significant difference between male and female performance. These patterns are not unusual in upper-middle income countries such as neighboring Sri Lanka (Aturupane, Shojo and Ebenezer 2018). The closing gap in mathematics in Grade 7 also reflects a movement toward global trends, which show that boys tend to outperform girls in science and mathematics at higher grades. Still, these patterns of gender differentiation in learning outcomes are not more well-understood in the Maldives.

Figure 2.8 Gender Differences in Learning Outcomes for Grade 4 (2015-2017)



Source: Authors, based on MoE 2018

Figure 2.9 Gender Differences in Learning Outcomes for Grade 7(2015-2017)



Source: Authors, based on MoE 2018

2.4 POLICY FRAMEWORK TO PROMOTE QUALITY

The GoM's policy framework to improve the quality of education is articulated in its Education Sector Plan (ESP) (2019-2023). Clearly, the quality of education needs to be improved, as demonstrated by the trend in learning outcomes discussed above and the GoM is well-attuned to this challenge. As a result, a five-year strategic plan to improve learning outcomes was developed and launched in 2019. This plan outlines the main challenges facing the education sector; chief among them, to improve the quality of learning outcomes and skills equitably, and to reduce learning gaps (GoM 2019). The ESP's theory of change identifies three drivers of learning outcomes, namely: the quality of educational inputs and outputs; the quality of the teaching and learning process; and the proper measurement of learning. Building on this, the GoM has identified four distinct policies to improve learning outcomes in its ESP 2019-2023: 1) Improve learning equitably and reduce the learning gap through effective curricula implementation; 2) Learning assessment for improved, equitable learning and skills development and reduction of the learning gaps; 3) Enhancing teaching and leadership quality for improved teaching and learning and; 4) Enhancing the learning environment for effective curriculum implementation. Through implementation of this policies and strategic framework, the GoM's aim is to achieve a 20 percent improvement in learning outcomes and to reduce the learning gap by 5 percent during the 2019-2023 time-frame.

The first pillar of the GoM's policy framework to improve learning outcomes is focused on improving learning equitably and reduce the learning gap through effective curricula implementation. The GoM undertook a series of curriculum reforms beginning in 2015. The policy goal here is to ensure that the new curriculum is implemented effectively, in order to maximize learning outcomes. The ESP identifies a multi-pronged strategy to achieve this, including; a) continuous monitoring, assessment and revision curricula implementation, especially teaching and learning materials and classrooms processes; b) supporting teachers in curriculum implementation through School-based Professional Development (SBPD) and additional support for lesson planning, formative assessment and the cultivation of higher level cognitive and socio-emotional skills; c) strengthening technology-based teaching and learning for improved cognitive and non-cognitive learning outcomes, values skills and competencies and; d) enabling access to assistive technology for Special Needs Students (SEN) children and those with exceptional abilities (ESP 2019-2023).

The second element of the policy framework is a focus on strengthening learning assessment for improved, equitable learning and skills development, and reduction of the learning gap. The approach here is four pronged: a) Establishing holistic early learning standards at the end of Foundation Stage; b) Introducing learning benchmarking in the NALO instrument to inform policies and actions to improve curricula and MGT implementations; c) Participating in international learning assessments for benchmarking and; d) Strengthening co-ordination and joint-work between the QAD and the NIE to inform curricula implementation on the NALO findings (MoE ESP 2019-2023).

The third key element of the policy framework is enhancing the quality of teaching and school leadership. The three pronged strategy here includes: a) Revising benchmarks developed for teacher quality in identifying the Teacher Professional Standards; b) Supporting schools on subject based in-service training and participation in the SBPD to reduce the learning gap; and c) Recognizing positive school leadership and strengthen school leadership for the development of School Improvement Plans and mobilize community support to improve learning.

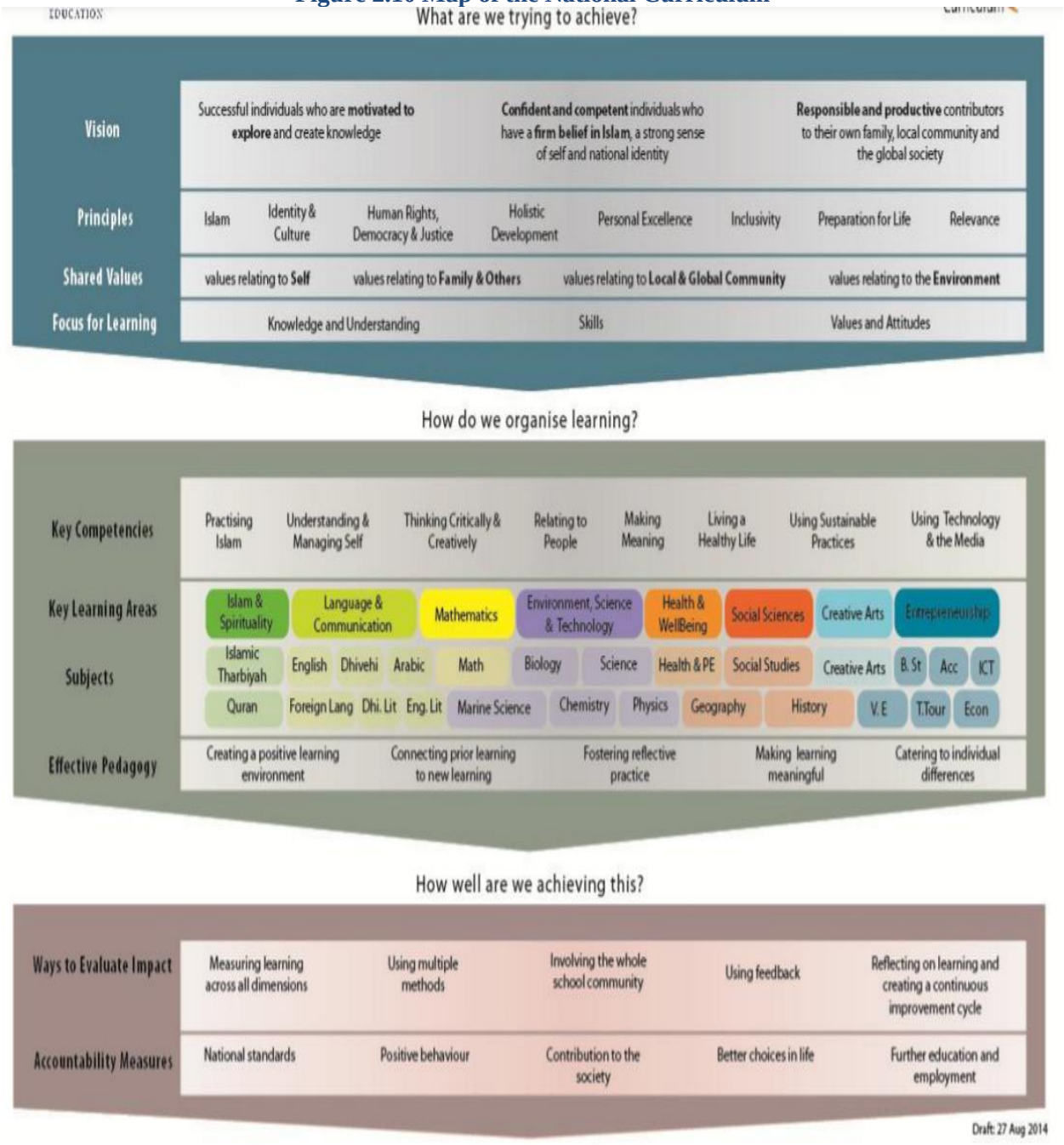
The fourth and final policy thrust is enhancing the learning environment for effective curriculum implementation. The strategy here is four-pronged: a) Monitor and improve physical accessibility, health and safety conditions for all schools including identification and readiness to address risk factors for students; b) Ensure library services and independent learning spaces in all schools; c) Ensure availability of internet connectivity for learning and; Create standards for schools for creating and sustaining effective learning environment.

The GoM also has several cross-cutting policy approaches that underpin this targeted framework for enhancing learning outcomes; including special support for SEN children. The GoM has outlined several cross-cutting policies that underpin the policy framework to improve learning. They include: a) the promotion of holistic education; b) the transition to single session schools; c) a health and safety policy and; d) a school-based management policy. A key cross cutting policy approach is the promotion of inclusive education. An inclusive education policy was first introduced in the Maldives in 2013. Since then, then GoM has ushered in various strategies and activities to promote inclusive education with the goal of ensure that both highly talented children and those with special educational needs (SEN) are identified and provided with the special support required to maximize their learning outcomes.

2.5 KEY INITIATIVES TO IMPROVE QUALITY: ACHIEVEMENTS AND CHALLENGES

The GoM has initiated a series of initiatives to improve the quality of education; key among them is curriculum reform. Curriculum reform in the Maldives has been ongoing for the last two decades. The Maldives has had a progressive view towards curriculum development, with special attention to international best practices. A national curriculum was introduced in 1984. In 2006, the curriculum was revised, drawing on global best practices in education, specifically including inputs from the curricula frameworks in the UK, Australia and New Zealand. In 2015, further building on modern best practices in education, a new curriculum known as the National Curriculum Framework (NCF) was rolled out. This outcome-based curriculum serves as the blueprint for education in Maldives. The stated aim of the NCF is "to build knowledgeable future generations, possessing the skills, values, and attitudes needed to be successful in both the Maldives and in the global community". To achieve this goal, the NCF identifies seven Key Competencies, across eight Key Learning Areas. These are: Islam and Spirituality; Language and Communication; Mathematics; Environment, Science and Technology; Health and Wellbeing; Social Sciences; Creative Arts; and Entrepreneurship. A map of the NCF is presented in Figure 2.11.

Figure 2.10 Map of the National Curriculum



Source: https://www.moe.gov.mv/assets/upload/National_Curriculum_Framework_English.pdf

The Maldives has made progress in rolling out this new curriculum, but serious implementation challenges remain that may hinder the effectiveness of the new curriculum (MoE 2019). Since the launch of the new curriculum in 2015, the GoM has made progress in teacher training, the development of pedagogical materials for both students and teachers, and the installation of supportive technology for teaching and learning. Still, a recent analysis of the process indicates that there are several challenges in the process, specifically as it relates to the promotion of higher order thinking skills and the implementation of proper classroom-based assessments. Moreover, as the recent NALO results suggests, the implementation

of the new curriculum is not yet producing the expected improvement in learning outcomes; and may signal that the implementation of the new curriculum require further support, specifically in areas such as teacher training.

To further enhance the quality of education, the GoM has also undertaken a series of initiatives to improve teacher quality, including a program for School-Based Professional Development (SBPD). The GoM recognizes the important role teachers play in delivering a high quality of education; and they also recognize that teacher quality has been a long-standing challenge for education in the country. To address this challenge, they have made efforts to ensure that there are sufficiently trained teachers in the education system. As a result of these efforts, the number of untrained teachers has dropped from 23% in 2020 to 6 % in 2018 (MoE 2019). A plan to upgrade teacher qualifications has also been implemented; one that aims to ensure that all teachers have at least a bachelor's degree qualification (MoE 2019). Aside from pre-service teacher training initiatives, the Government also recognizes the crucial role of continuous professional development in improving teacher skills. In 2009, the GoM launched the Professional Development policy, and along with it a SBPD policy. SBPD is widely acknowledged to be a highly effective strategy for improving teaching and ultimately improving learning outcomes. Although the enactment of this policy is a key step toward the effective implementation of the SBPD, a recent study identified some key challenges facing the program. Rizwan & Shifaza (2015) identified two key challenges in the implementation of SBPD. First, that school principals lack awareness of the important role they have to play in implementing high-quality SBPD. An overwhelming majority (75 percent) of principals in the study reported that they understood their role in SBPD to be only one of oversight. This clearly indicates a need for training and sensitization of school leadership, so they can support the proper implementation of SBPD. Second, the study found that there was a tendency in schools and school teachers to fill the mandatory time requirements of PD, without serious attention to the pedagogical needs of teachers. As this study suggests, SBPD, which is increasingly recognized as a critical component of teacher effectiveness, requires greater attention.

Under the framework of the new ESP 2019-2023, the GoM is undertaking a special program to improve the quality of SBPD. In response to the program challenges discussed above, the GoM is focusing on improving SBPD, with the aim of supporting the achievement of required competencies among teachers and the use of appropriate pedagogical practices among teachers, including in distance education. As part of the improved SBPD, the NIE and the QAD, with the assistance of the Teacher Resource Centers (TRCs) will support schools to implement SBPD programs effectively; including the implementation of new mechanisms to evaluate the quality of SBPD. The QAD is implementing a program to measure the quality of the SBPD through internal and external self-evaluation. The NIE will also evaluate the quality of the program through school-self evaluation and reporting process. The Government expects that these measures will help to improve the quality of SBPD in the Maldives, improve the quality of teachers, and ultimately, the quality of education.

Another key quality improvement initiative of the GoM has been to establish a Quality Assurance (QA) framework and system, to monitor the quality of schools. In 2015, the GoM established the Quality Assurance Department (QAD) as part of the Ministry of Education (MoE), to develop and monitor Quality Assurance processes in the education sector. A key mandate of the QAD is oversee a program of school quality assessment through school reviews, which are conducted within the Quality Assurance Accountability (SIQAA) Framework. Findings of QAD school reviews are shared and discussed with stakeholders (including parents and other members of the school community) to help bring about improvement in school quality. External QAD reviews are complemented by school-self evaluations, which are conducted by stakeholders (including principals, teachers, parents and local communities). The findings

of the internal QA reviews are designed to provide timely feedback for school development needs, both at the community level and also at the wider policy and planning levels.

Recognizing the central role of measurement and monitoring in improving learning outcomes, the GoM has made efforts to improve its system for measuring learning. Drawing on global best practices and lessons learned from high performing education systems, the Maldives has made strides in the development of a system to measure learning (Aturupane et al. 2012). The Maldives now has a multi-pronged approach to the assessment of learning outcomes, from classroom-based assessment to a standardized national testing apparatus. Table 2.4 presents the different types of assessments already under implementation in the Maldives, along with the function and frequency of each. A key initiative of the GoM in recent years has been the development and implementation of the National Assessment of Learning Outcomes (NALO). The purpose of the NALO is to monitor and assess the quality of school education in the Maldives (MoE 2019). The test was first administered in 2015 for English Language and Mathematics in Grades 4 and 7; in 2016 for Dhivehi Language in Grades 4 and 7; and in 2017 for Dhivehi Language, English Language and Mathematics. The GoM is also keen on participating in international assessments, which will provide a better snapshot of the country's educational performance as against international benchmarks. With that in mind, the QAD is now integrating modules of international assessments into the NALO, to prepare students for international assessments. Moreover, recognizing the importance of early diagnostic testing to improve learning, the GoM is instituting Early Grade Reading Assessments (EGRA) and Early Grade Mathematics Assessments (EGMA) to measure student learning in early grades, with the aim of providing early support to students to help address early learning gaps.

Table 0.5 School-based, National Assessments, and Examinations in the Maldives

The Maldives Large-Scale, System-level Assessment				
	Classroom	**National**	**International**	**Examinations**
Existence	YES	YES	NO	YES
Frequency	Daily	Annually in specific subjects		Annually
Who is tested?	Selected students	All students from a sample of schools from Grade 4 and Grade 7	Depending on the type of Assessment (PISA, TIMSS, PIRLS, other)	All students
Format	Observations, questioning, orally,	Test: Multiple Choice Questions	Usually multiple choice, short answers, long answers and essays	Usually essay and multiple-choice questions
Coverage of curriculum	All subject areas	Numeracy and literacy in English and Dhivehi		Covers main subject areas
Additional information collected from students	Ongoing process and part of the teaching and learning	Yes		No

Scoring	Narrative report (feedback)	Narrative report plus statistical analysis		Graded: A,B,C,D,E &U

Source: MoE 2019

To support equitable learning outcomes, the GoM has a strong initiative to promote inclusive education, with a special focus on assisting children with Special Educational Needs (SEN) and providing alternative pathways for children at risk. The GoM recognizes the importance of inclusive education in achieving equitable and improved learning outcomes. To this end, the GoM launched an inclusive education policy in 2013, with a special focus on children with SEN. Within this framework, the MoE launched various programs and interventions, including the introduction of a competency-based curriculum which addresses inclusivity, a provision of training to SEN teachers, SEN target setting and the establishment of a unit within NIE to support the implementation of this policy in schools. Still, much remains to be done, specifically in the areas of early identification of SEN children and early intervention programs. There is a lack of adequately trained teachers for SEN and the Ministry of Education (MoE) and National Institute of Education's (NIE) capacity to develop SEN policy and programming also needs to be upgraded. Adequate physical resources, including space and equipment for SEN children remains a challenge in most schools. The GoM is currently undertaking the development of these aspects of SEN programming, to ensure that all children, including those with special needs are able to optimize their learning opportunities and maximize learning outcomes.

2.6 FUTURE CHALLENGES FOR EDUCATION IN THE MALDIVES: EMERGING POLICY PRIORITIES

The Maldives must continue to invest in improving the quality of education with a focus on ensuring equitable learning outcomes; but there are emerging challenges that will determine the trajectory of its human capital and economic advancement goals. The Maldives has clearly made progress in educational attainment (as discussed in Chapter 1), but the quality of education remains a concern, as highlighted in the preceding analysis. The GoM is keenly aware of the factors impacting learning outcomes, namely the quality of curriculum implementation, teacher training, a system for quality assurance, a system for learning assessment, and programs for supporting equitable learning, especially for students with special educational needs (SEN). The GoM has also been proactive in promoting initiatives to address these dimensions of quality. Moving forward, it will be important that the GoM also takes a deeper investigation of regional disparities in learning outcomes to better understand what policies have worked, and what underlying factors impact learning outcomes in lagging atolls. These initiatives will continue to require strengthening and development, but there are other emerging challenges that pertain to the future of work in a globalized and increasingly, technology and automation driven future.

The information-rich and technology intensive future calls for a new set of education policy priorities, key among them: 1) the development and measurement of higher order cognitive and socio-emotional skills and; 2) the integration of technology in learning. Much has been written about the fourth industrial revolution and its impact on work in the future. COVID 19 has accelerated some of these challenges facing education and has also ushered in new opportunities. More will be discussed on the impact of COVID 19 on education but suffice to say it has cemented some of the looming challenges facing the education sector as it adapts to the changing nature of work. Two challenges in particular are: i) effective integration technology in learning and; ii) cultivating the socio-emotional skills students need to be competitive in the modern global economy. Like its global counterparts, the Maldives must ensure that its educational system is able to meet these challenges and prepare students for the future.

Policy Option One: Improve the system for promoting and measuring higher order cognitive and socio-emotional skills

Rapid changes in the global economic, environmental and social landscape require that the Maldives place a greater emphasis on the promotion of socio-emotional skills through education. The global economy places a greater premium on higher-order cognitive skills, such as expert thinking and complex communication (World Bank 2018). Moreover, events such as the COVID 19 pandemic and natural disasters remind policy makers that building socio-emotional skills such as resilience and mechanisms for adaptivity in students is very important for sustainable human capital development. Socio-emotional skills are generally defined as "the learned competencies that help us understand ourselves, help us get along with others, and help us solve important social problems and resolve conflicts (Guerra 2015). They are important not only for relating in the social and work context but also are increasingly recognized as important to the development and use of cognitive skills (OECD 2018). One of the most widely used frameworks for socio-emotional skills is the Big Five model. This model categorizes socio-emotional skills into five broad traits. They are as follows: (a) openness to experience (open-mindedness), (b) conscientiousness (task performance), (c) emotional stability (emotional regulation), (d) extraversion (engaging with others), and (d) agreeableness (collaboration) (OECD 2015). Under each of these categories, there is a cluster of mutually related social and emotional skills (OECD 2015).

The Maldives' National Curriculum Framework highlights the importance of cultivating higher order cognitive and socio-emotional skills; but challenges remain on how best to promote and measure the development these skills among students. The NCF lays out eight cross cutting principals guiding education, and they include "preparation for life", which aims to foster skills for life, such as self-reliance and independence. Moreover, the NCF acknowledges that it is "crucial that schools focus on developing skills in children and young people; skills that would essentially allow them to gain, organize and use information appropriately". The NCF also highlights the importance of cultivating higher order cognitive skills, stressing the need for "developing the skills of investigation and problem solving; of applying reading skills that are appropriate to the expected task; of the use of reasoning in writing; and developing skills necessary for effective learning" (MoE 2015a). Although the ESP 2019-2023 also highlights the importance of cultivating socio-emotional skills in students, it is unclear whether the Maldives has a strong system in place to promote these skills through the teaching learning process. Moreover, the ESP acknowledges that the Maldives does not yet have a system for assessing mastery of socio-emotional skills. Although most countries have not adopted formal standardized assessments of student's socio-emotional skills, more advanced systems have begun to establish formative assessments, or student report cards based on teacher observations. Implementing the NCF's vision for socio-emotional skills development will require further attention, particularly in terms of training teachers on how to promote and assess these skills among students. The challenge for Maldives will be to effectively implement a program for cultivating these important skills and also develop a system for effectively assessment of these skills.

Moreover, to prepare students for the future of work, the Maldives will have to pay special attention to the promotion of PRACTICE skills. These are a subset of socio-emotional skills that are particularly important for the world of work. The eight skills identified within the PRACTICE framework are as follows: problem solving, resilience, achievement motivations, control, teamwork, initiative, confidence, and ethics (See Table 2.5). The PRACTICE framework was specifically designed to provide guidance for labor market-oriented skill-building policies and programs, and to frame the socio-emotional skills dialogue in a language that is consistent with intervention programs to promote job-oriented noncognitive skills. As the Maldives aims to prepare students to be competitive for the demands of the labor market, it will be

important for the country to pay special attention to the promotion of PRACTICE skills through curricular and extra-curricular activities. At the same time, the country will have to explore ways to measure the development of these skills in students.

Table 0.6 PRACTICE Skills, Sub-skills, Big Five Traits, and Biological Foundations

PRACTICE: Skills for Success	Sub-skills (Skills, Attitudes, Beliefs, Behaviors) Identified by Employers	Related Big Five Personality Traits	Neurobiological Foundations
Problem-solving	• Social information processing skills • Decision making • Planning skills	• Conscientiousness	• Executive attention systems—ability to focus attention and to inhibit negative emotionality
Resilience	• Stress resistance • Perseverance • Optimism • Adaptability	• Conscientiousness (grit) • Neuroticism	• Biological system focused on preventing harm
Achievement motivation	• Mastery orientation • Sense of purpose • Motivation to learn	• Conscientiousness (grit) • Openness to experience	• Biological tendency to seek out new environments • Orienting sensitivity—tendency to respond to sensory stimulation
Control	• Delay of gratification • Impulse control • Attentional focus • Self-management	• Conscientiousness	• Executive attention systems—ability to focus attention and to inhibit negative emotionality • Self-regulatory system—delay of gratification
Teamwork	• Empathy/prosocial • Low aggression • Communication skills • Relationship skills	• Extraversion • Agreeableness	• Biological system promoting active approach and exploration—tendency to enjoy social interaction and positive moods
Initiative	• Agency • Internal locus of control • Leadership	• Conscientiousness • Openness to experience	• Biological tendency to seek out new environments • Orienting sensitivity—tendency to respond to sensory stimulation
Confidence	• Self-efficacy • Self-esteem • Positive identity	• Neuroticism	• Biological system that is focused on preventing harm
Ethics	• Honesty • Fairness orientation • Moral reasoning	• Conscientiousness	• Biological system promoting active approach and exploration—tendency to

			enjoy social interaction and positive moods

Source: Guerra et al. 2014

Policy Option Two: Implement an effective strategy for utilizing technology to enhance learning

The second emerging policy challenge for the Maldives is to implement clear and effective strategy for utilizing technology in learning. Obvious technological and social shifts require that education systems address the question of how to integrate technology into education. The OECD identifies the following three-fold rationale for technological integration in education: a) technology has a role in opening up new opportunities to improve the teaching and learning process; b) technological literacy is an essential pre-requisite for success in the knowledge economy and; c) technology is integral for accessing higher order competencies, also known as 21st century skills (OECD 2010). Given this, it is important for the Maldives to tap into the potential of ICT for improving the quality of teaching and learning. Moreover, it is important to properly integrate ICT in education to ensure that students are adequately prepared to adapt to rapid advances in how technology is used in the future of work.

The Maldives has recognized the importance of this area, but there is significant room for advancement in how technology is integrated into education in the Maldives. The Maldives has long recognized the importance of integrating ICT in teaching and learning (MoE 2019, ESP 2019-2023). Building on these policies, the GoM developed the ICT in Education Master Plan of the Maldives 2015-2018, which "envisions the schools to become innovative in delivering quality education" (MoE, 2015b). As a result of its efforts, the Maldives has been successful in using ICT as a tool for the delivery of classroom lessons (MoE 2019). However, an assessment of its integration of ICT in education according to global best practices suggests that Maldives has significant room to grow in this area. Morel's matrix is a framework and tool to benchmark the level of integration of technology in education. The matrix suggests there are four levels of integration, "emerging", "applying", "integrating" and "transforming". A 2018 analysis based on Morel's matrix of ICT integration in education in the Maldives indicates that it is at a late nascent stage of technology integration in education, somewhere between "emerging" and "applying". In other words, the Maldives has much room to develop in order to capitalize on the benefits of optimal ICT integration in education. Table 2.6 presents the Maldives status in ICT integration in education, using Morel's matrix.

Table 0.7 Morel's Matrix: Benchmarking the Level of ICT Integration in the Maldives Education Sector

Criteria/Phase	Emerging	Applying	Integrating	Transforming
Vision	Limited, pragmatic, dominated by interested individuals	Driven by ICTs specialists	Driven by subject specialists	Entire learning community involved
Learning Pedagogy	Teacher-centered	Teacher-centered. ICTs are a separate subject	Learner-centered; collaborative	Critical thinking; preferred learning styles; collaborative, experiential

Development plan and policies	Accidental; Restrictive, no planned funding	Limited; Centralized policies	Individual subject plans for ICTs; Permissive policies	ICTs are integral to overall school development plan (budget, professional development, etc.)
Facilities and resources	Limited and non-current digital resources; Restricted access	Diverse and varying in the model, platform; aligned with specific content and pedagogies	Diffused access to various digital resources; Supports to implement these in various ways	Whole school learning and diverse learning environments; Web-based learning
Understanding of curriculum	ICT literacy; Responsibility of individual teachers	Use of software and applications in discrete	Integrated; resource-based learning.	Virtual and real-time contexts, modelling; Integrated
Development	Individual interest	Training on ICT applications; unplanned	Subject-specific; Evolving	Integrated learning community; Innovative; Self-managed, personal vision and plan
Community	Accidental	Some parental and community involvement	Subject-based community, providing occasional assistance; Global and local networked communities	Broad-based learning community involving families, business, industry, organizations, universities, etc.; School as a learning resource for the community
Assessment	The responsibility of individual teacher; Didactic; paper-and-pencil based	Teacher-centered; Subject-focused	Learner-centered; Subject-oriented; Integrated; Multiple media to demonstrate attainment	Continuous, holistic, open-ended, project-based; Learning community involvement

Source: MoE 2019

Finally, the Maldives must strengthen its measurement of learning by incorporating international assessments. Most upper-middle- and high-income countries participate in a range of international assessments, such as the Progress in International Reading Literacy Study (PIRLS), Trends in International Mathematics and Science Study (TIMSS), and Program for International Student Assessment (PISA). Developing countries are also stepping up efforts to participate in these tests because they help policy makers benchmark learning outcomes against international standards; ultimately using international assessments to accelerate education reforms and ultimately improve educational outcomes. As a first step, it would be useful for the Maldives to introduce international assessment modules (or sample questions)

into the national assessment cycle; thus introducing international assessments into the learning assessment system. Ultimately, it will be important for the Maldives to formally participate in one or more international assessments.

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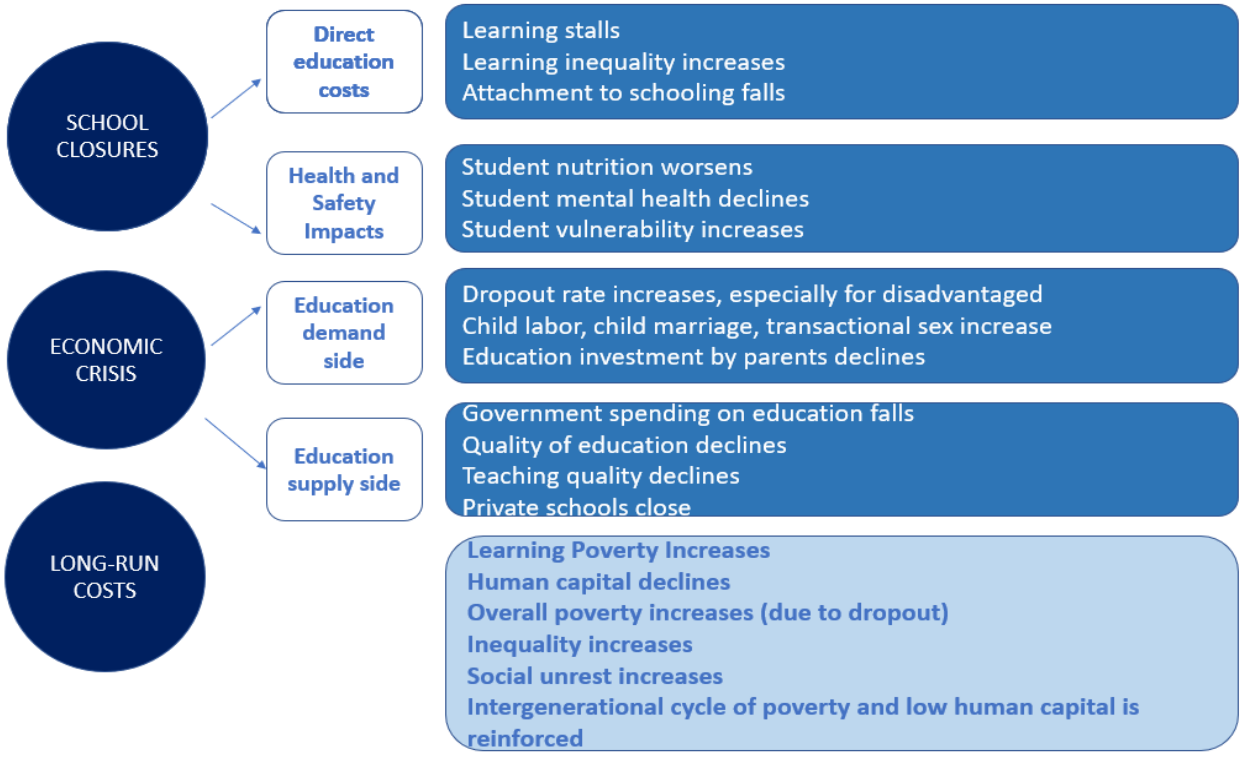
CHAPTER THREE: THE EDUCATION SECTOR'S RESPONSE TO COVID 19 IN THE MALDIVES AND OTHER SMALL ISLAND STATES

3.1 IMPACT OF THE COVID 19 ON GENERAL EDUCATION: THE GLOBAL PICTURE

COVID 19[4][5] has led to the largest disruption in the history of education worldwide. Initial pandemic response measures included large scale lock downs across much of the world, resulting in the widespread closure of education systems at every level, from early childhood education to higher education. In fact, by UN estimates, the COVID 19 pandemic created the largest disruption to education systems in history (UN 2020a). Approximately 94 percent of the world's student population, and up to 99 percent in low and lower-middle income countries were impacted (UN 2020a).

Figure 3.1 The Impact of COVID 19 on Education



Source: World Bank 2020a

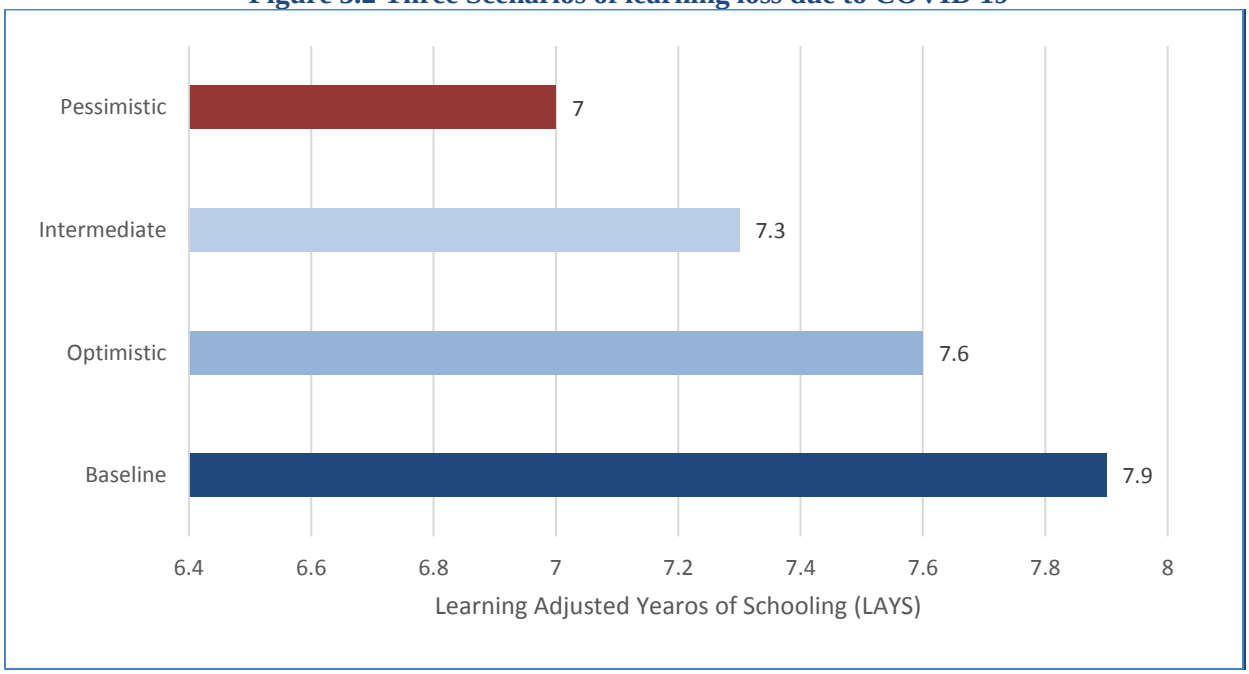
The global recession sparked by the Pandemic may also have significant long-term implications for education globally. To combat the Pandemic, many countries intentionally shut down large swaths of their economy for extended periods of time, resulting in severe economic contractions, reducing public budgets

[4] COVID 19, also knowns as SARS-CoV-2 stands for the Severe Acute Respiratory Syndrome Corona Virus Disease -2. In this document, it interchangeably referred to as COVID 19 and the Pandemic.
[5] As of the time of writing, the Pandemic has been underway for approximately 10 months and is still ongoing.

and household incomes (Azevedo et al 2020). Indeed, by IMF projections, the global economy will shrink about 4.9 percent in 2020, a far greater drop than during the global financial crisis of 2008-09 (IMF 2020). This will have severe consequences for both governments and households and will impact both the demand for and supply of education. In Figure 3.1, World Bank 2020 maps out the impact of the educational disruption caused by the Pandemic. As this figure indicates, the economic impact of the Pandemic could depress both education demand, as school drop-out rates increase and education investment by parents decline. Moreover, the Pandemic could intensify social pressures, resulting in increased child labor and child marriage. The supply-side of education could also be adversely impacted as Governments face fiscal deficits, and education spending is reduced. The twin-shocks will also have complex impacts on teaching quality, a key driver of education quality and on other aspects of education in general (World Bank 2020a).

The Pandemic is expected to lead to significant learning loss, intensifying a "learning crisis" already underway in much of the world. Much has been said about the global learning crisis, reflected in poor learning outcomes. By any measure, the closure of schools for an extended period of time will result in learning loss: the question is how much learning loss, and how can it be mitigated (Azevedo et al. 2020). Prior to the Pandemic, it was estimated that the global average learning-adjusted years of schooling was approximately 7.9. A recent World Bank paper projects learning loss based on three different scenarios. In an optimistic scenario, where schools are closed for 3 months and mitigation efforts are moderate, there would only be 0.3 learning adjusted years of schools lost. In an intermediate scenario, where schools are closed for 5 months and mitigation efforts are moderate, learning adjusted years of school would fall by 0.6 years. In a pessimistic scenario, where schools are closed for 9 months, learning loss is projected fall by 0.9 years (Azevedo et al. 2020). Many countries are likely facing the pessimistic scenario, approaching 9 months or more of school closures.

Figure 3.2 Three Scenarios of learning loss due to COVID 19



Source: Azevedo et al. 2020

The poorest children and the poorest countries are being disproportionately affected, thereby exacerbating existing inequalities in education access and quality. It is well-established that students from poor households are far more likely (than their wealthier peers) to leave school without acquiring basic skills like literacy or numeracy (WDR 2018). Now experts and policy makers fear that these pre-existing deficits are likely to be compounded by extended school closures, inequalities in access to remote learning technology and infrastructure, and home learning environments (Azevedo et al 2020). Moreover, existing inequities and resources across systems have been exacerbated by the ability or the lack there of, of education systems to be resilient. During the second quarter 2020, about 86 per cent of children in primary education were still out of school in countries with low human development – as compared with just 20 per cent in countries with very high human development (UN 2020a).

Those children with special education needs face a dual crisis. More specifically, children who are differently abled and have physical and mental needs are particularly at risk **(**Azevedo et al 2020). In many instances, these children are already disadvantaged by the traditional education system; moreover, they have special needs and often require one-on-one attention in particular instructional settings because they have more challenges than the average learner. Remote learning facilities are not often tailored to these challenges, and parents require special guidance. Moreover, these children will need to be given extra care and attention as school reopens, to prepare them (with special sensitization to health and hygiene measures required to prevent the spread of the virus) to renter the school environment safely. This will require extra resources in an environment where schools and education systems are already under resourced and overburdened. As such, children with special needs may not be able to renter the classroom as soon as they average learner, extending the period of learning loss that takes place outside the classroom environment. As such, children with disabilities are likely to fall further behind in the context of a remote learning environment.

3.2 THE IMPACT OF COVID 19 ON EDUCATION IN THE MALDIVES

The General Impact of COVID-19 in the Maldives

The health impacts of COVID-19 were relatively small in the Maldives, but the social and economic impacts were significantly greater. The Maldives took a proactive stance to the COVID-19 early on, closing borders, restricting tourism and shutting down large swaths of the economy. These measures aided in curtailing the spread of the virus. Overall, the Maldives has had approximately 21, 570 cases and 64 deaths (a death rate of approximately .02 percent). Nevertheless, as the subsequent sections of this report will show, the virus has taken a significant social and economic on the country and has had an especially strong impact on its education system.

COVID 19 created the largest disruption to the education sector in the history of Maldives. The Maldives declared a State of Public Health Emergency (SPHE) on March 12, 2020, followed by a national lockdown. Schools were closed thereafter, and school closures were extended for the next several months, particularly in more populated areas of the country, such as the Greater Male region. With these lockdown measures, the entire education sector was closed to in-person learning and thus began the largest recorded disruption of education in the country's history. The impact of the school closures and the economic recession that has hit the country as a result of the virus can be felt at all levels of the education sector.

Impact on learners in the Maldives

COVID-19 has inevitably led to learning loss, with about 10.3 million hours of learning for about 86,000 students per month lost during the 12 weeks of extended school shut-downs (MoE 2020). The school closures directly impacted over 91,000 school children from pre-KG to higher secondary, with the longest disruption faced by children in primary grades (Key Stages 1 and 2). About fifty percent (nearly 43,000 students) in the school system in the Maldives are enrolled in Key Stage 1 and 2 (corresponding to primary grades 1-6). These two stages of the education system experienced the longest disruption of learning, because of the way in which alternative learning arrangements were rolled out.

Secondary school children were also significantly affected; not only with the school closures but also because of postponements of high-stakes secondary school leaving examinations. Like their younger school counterparts, roughly 12,700 secondary school students experienced significant disruption. However, unlike students in Key Stage 1 and 2, these impacts extended beyond classroom learning to the high-stakes GCE O and A-level examinations. The examinations, which were supposed to take place in Oct/Nov of 2020, have been tentatively postponed to May/June 2021. These examinations caused significant stress even before COVID 19 and these stressors have now been exacerbated by the uncertainty and postponement of the exams. Moreover, the postponement of these exams will affect the transition of students to higher secondary and tertiary level studies and depending on the institution they have chosen, this may mean losing a full year of study at a critical age, with potential myriad consequences for their engagement in further study and potentially in the labor market (MoE 2020).

Inequalities in education quality and learning outcomes could widen in the Maldives as a result of the Pandemic. More than a quarter of schools (26 percent of schools) were identified as disadvantaged or underperforming schools. According to UNICEF, these schools lacked basic water, sanitation and hygiene facilities even prior to the Pandemic (MoE 2020). This puts them at a greater disadvantage in terms of being able to fulfill the standards required for reopening during the Pandemic. These students are already at a disadvantage and are likely to face more challenges unless they are given the additional resources to ensure that they are able to reopen safely. The result of extended school closures and unstable education provision is likely to have an even greater impact on these students, who are more likely located on remote islands and often come from poorer households where parents lack the skills to support home-schooling.

Impact on education provision

Government schools are likely to overburdened, with fee-levying private schools closing down due to the Pandemic (MoE 2020). The Pandemic has already put pressure on fee-levying private schools, causing some to close and this may overburden Government schools that were already running at near full capacity prior to the COVID 19. Private schools are the largest providers of early childhood education in the country; with approximately 70 percent of children in pre-primary school enrolled in the private sector (MoE 2019). These pre-schools are at greater risk of closing due to the financial losses incurred during the Pandemic and shrinking provision in the private sector could overburden the public pre-primary education system, thereby affecting access to education at this early stage in the cycle (MoE 2020).

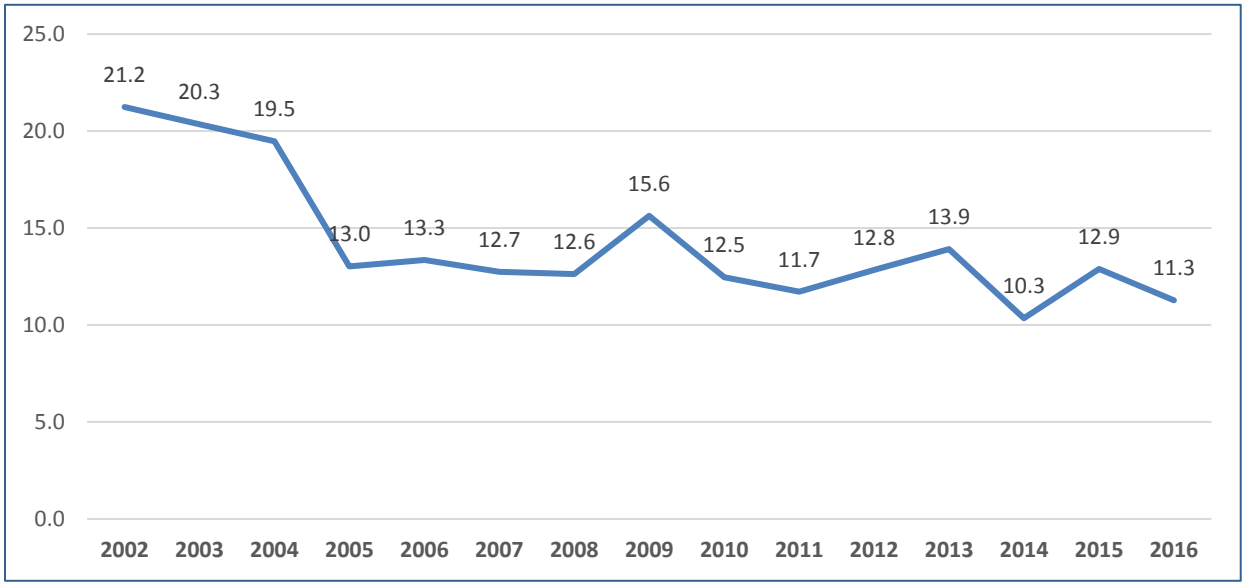
The Pandemic has led to a shortage of teachers at the secondary school level. Expatriate teachers constitute upwards of 22 percent of the teacher cadre in government schools and an even greater share of teachers at the secondary school level: approximately 43 percent of teachers at lower secondary and 46

percent at the higher secondary level (MoE 2019). The teaching cadre has been affected in multiple ways, but most acutely because of the increased likelihood that expat teachers that make up the majority of secondary school teachers are increasingly likely to return to their home countries due to the Pandemic.

Impact on education at the system level (including education sector financing)

The Maldives' economy has been severely impacted by the Pandemic and this will have an impact on education sector financing, and ultimately on education delivery and outcomes. The World Bank estimates that the Maldives GDP contracted by approximately 19.5 percent in 2020. The economic recession caused by the Pandemic has impacted all aspects of the public budget, including the education sector. As Figure 3.3 shows, education spending in the Maldives, as a percent of per capita income, has declined over time. The education budget has already been reduced by 5 percent and is expected to be cut further depending on how long the economic crisis extends (MoE 2020). In addition, the budget will have to be reallocated within the sector to address the COVID 19 related needs of the education sector, such as investments in WASH and other infection prevention measures. Reallocation of the budget will likely impact planned education sector operational and development activities.

Figure 3.3 Education Spending in the Maldives as a Percentage of GDP (2002-2016)



Source: World Bank database (accessed March 15, 2021)

Table 0.1A Summary of Interventions in the Maldives COVID 19 Response and Recovery Plan for Education

Dimensions of COVID 19 response in the education sector	Coping (when schools are closed)	Managing Learning (when schools reopen)	Accelerating Learning (p ost-pandemic recovery)
Safety	Closing schools until transmission is under control	Conducting a new normal back-to-school campaign to communicate safe reopening of schools Implementation of a toolkit to assess school readiness for reopening	
	Disseminating health and safety information to the school community through awareness programming using social media, television etc.	Developing and dissemination of user-friendly guidelines and SOP on safety, hand washing, hygiene practices, cleaning procedures and physical distancing when schools are in session Preparing schools for safe reopening (including investing in WASH facilities and resources; preparedness to offer special psychosocial and academic support) including investing in infrastructure for safe reopening.	
Continuity of Learning	Plan for continuing learning during the lockdown using a multi-modal approach.	Rescheduling of secondary level exams, e.g. O and A-levels Implementation of hybrid/blended learning models Curriculum rationalization	Project-based learning Connectivity and distance learning Capacity building of teachers to take advantage of the new normal, to implement and leapfrog to new pedagogical reforms such as project-based learning. Expanding pre-service teacher education programs to prepare teachers to be adaptable and flexible in teaching modalities and methods
		Implementation and improvement of the digital repository for online teaching and learning materials (FILAA) portal Remedial programming for disadvantaged students in key subjects	

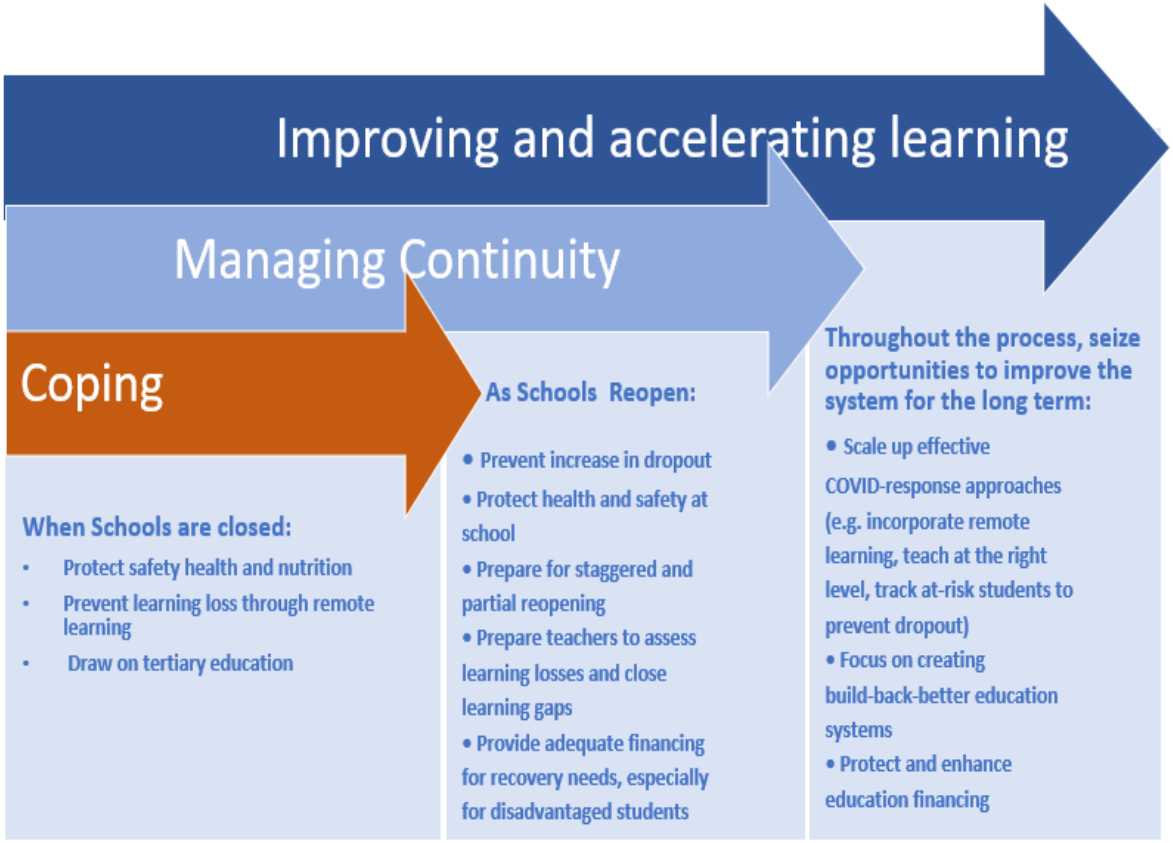
	Capacity building of teachers to teach in the “new normal”- including teaching using a blended learning approach and teaching models
Reaching the vulnerable	Special outreach to parents of SEN students in continuing learning during the Pandemic Develop and launch separate handwashing awareness campaigns for SEN students Expand and customize MEMIS to track COVID 19 related absenteeism and drop-out Develop a portal to track vulnerable students
Protection and Well-being	Providing teachers and school leadership the necessary support to carry out their essential duties during the Pandemic Ensure that teachers receive income and feel supported Strengthening ICT
Building resilience & strengthening coordination	Developing cost-effective and sustainable virtual learning solutions using ICT Building a platform for coordination among all stakeholders and development partners

Source: Authors, based on MoE, Maldives Education Response Plan (ERP) 2020

3.3 THE PANDEMIC RESPONSE IN THE EDUCATION SECTOR IN THE MALDIVES

The Education Sector's Pandemic Response can be viewed in three phases: "coping" when schools are closed; "maintaining continuity" when schools prepare for or begin to reopen; and "accelerating learning" when schools are opened. The World Bank suggests that the Education Sector's Pandemic response can be separated into three phases. Figure 3.3 presents the three phases with a set of interventions identified for each phase. The first phase "coping" is during the period of school closures. The aim here is to protect the health and well-being of students and the school community during school closures, prevent learning losses, and mobilize education systems to support a country's efforts to contain the pandemic (World Bank 2020a). The main interventions in this phase aim to provide health and nutritional support for students as well as sensitization to health measures to contain the Pandemic and educational interventions to continue learning and prevent learning loss during the Pandemic. The second phase, "maintaining continuity" aims to prepare schools for full, partial or staggered reopening and to recovery learning lost during the Pandemic. The third phase, "accelerating learning" is aimed at scaling up effective COVID 19 responses, capitalize on the opportunities and political will created by the Pandemic to build back education system to accelerate learning (World Bank 2020a). The following section will review the Pandemic response in the Maldives using this framework.

Figure 3.4 Three Overlapping Phases of the Pandemic Response

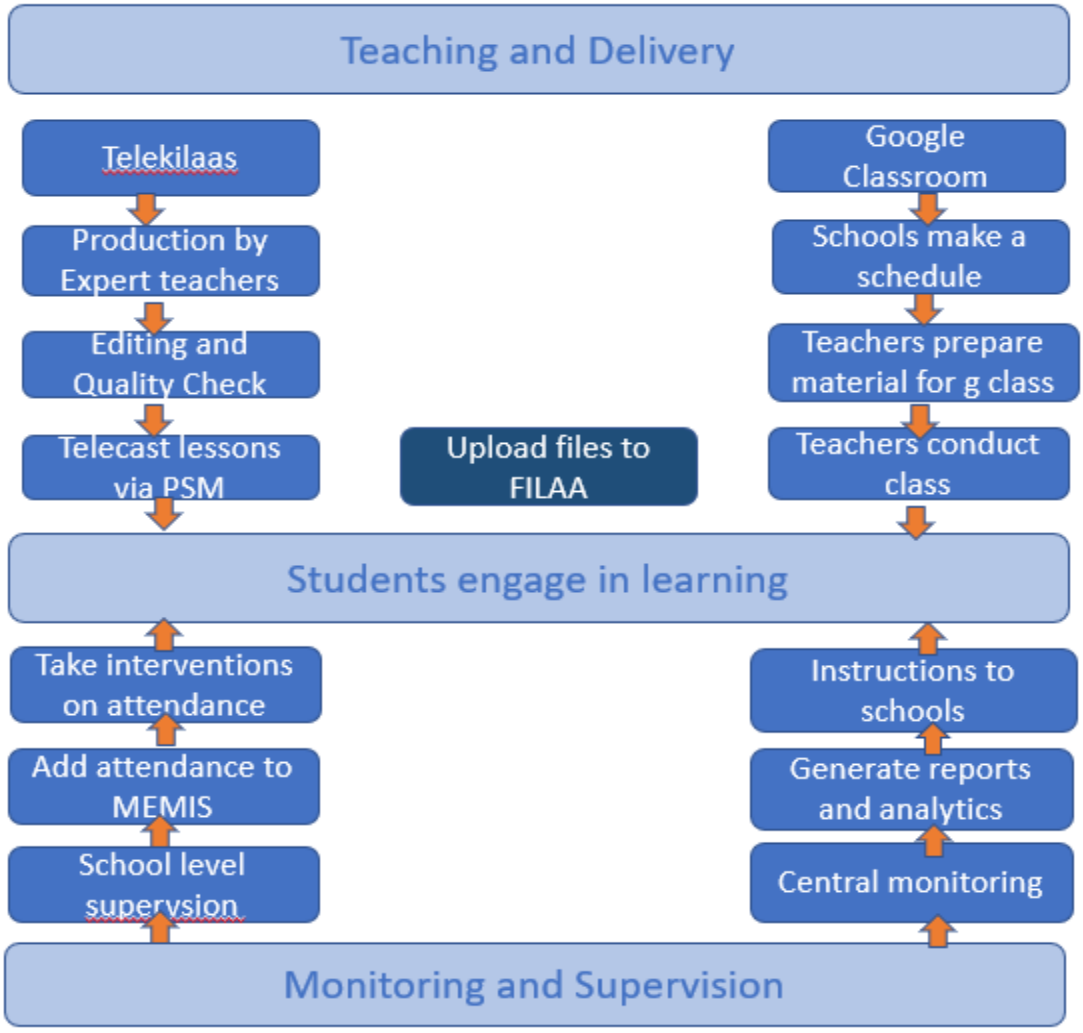


Source: World Bank 2020a

3.2.1 "Coping" with the Pandemic: The initial response of the education sector in the Maldives

A review of the Maldives' COVID 19 educator sector response shows a policy framework that is strongly aligned with international norms and guidance. In May 2020, the Maldives outlined a plan and strategy for education continuity and recovery in response to the Pandemic. This plan, the Maldives Education Response Plan (ERP) 2020 was informed by a COVID19 education recovery and response framework jointly issued by the World Bank, UNICEF, UNESCO and other development partners. In it, the GoM identifies five dimensions for intervention in the education response to COVID 19: i) safety; continuity of learning; reaching the vulnerable; protection and well-being and; building resilience and strengthening coordination. Table 3.1 (above) summarizes the key interventions that the Maldives has planned for under each of the five dimensions along the continuum of pandemic response and recovery efforts. The main ones will be discussed in greater detail below.

Figure 3.5 The GoM plan to ensure continuity of learning during school closures



Source: MoE 2020

From the outset, the Maldives' educator sector took a proactive approach in response to the Pandemic. Even before it was entirely clear that there would be extended school closures, the Government began putting in place measures to prepare for such an event. This included the establishment of a COVID19 Education Response Team and the issuance of a Standard Operating Procedure (SOP) to all schools, outlining the way in which the MoE and schools should respond and communicate during the different public health risk levels assigned by the Health Protection Agency (HPA). They also began sensitizing schools and the school community to the importance of COVID19 mitigation measures such as proper hand washing techniques etc. These measures prepared the groundwork for promoting the health and safety of the school community and for continuing learning during the extended school lockdowns that would follow in the subsequent months of the Pandemic.

Aside from the health and safety of the school community, the GoM's main concern in the "coping" phase was to prevent learning loss. To achieve this, the MoE formulated a contingency work plan to continue education. They were quick to recognize that remote learning platforms needed to be multi-modal given constraints in the availability of digital infrastructure and access to technology among poorer households and more remote atolls. As such, they mobilized television for delivering learning remotely. At the same time identifying a number of digital platforms for remote education, including Google classroom, TED-ED, Youtube and EduPage (MoE 2020). They prepared guidelines and contingency plans for remote teaching and learning and disseminated them to schools. Figure 3.4 presents a concept chart, which shows the Maldives plan for continuing learning during the school closures. A combination of different remote learning modalities was targeted for different age groups: play-based learning activity packs were distributed to all schools for the Foundation Stage (Pre-school). For Key Stages 1 and 2, remote learning activities were expected to focus on literacy and numeracy skill building activities. For Key Stages 3, 4 and 5, lessons were expected to be delivered via Telekilaas (Television-programs nationally telecasted for specific grades) and complemented with online instruction. For more on the different lesson plans for different key stages, please see Box 3.1. To address digital constraints and connectivity issues, the GoM supplemented student and teacher data (MoE 2020).

Box 0.1 Instructions to Schools Regarding Remote Learning.

(i) **KSs 4 and 5 (Grades 9 to 12)**: Telekilaas lessons will be conducted by the MoE. a. The teachers are advised to check with the parents and caregivers, on the children's engagement with the program.

b. The teachers need to ensure that the students' doubts are cleared and ensure that the lesson objectives are achieved, using the digital learning platforms suggested by the MoE.

c. It was also emphasised to consider sign language and subtitles for children with disabilities.

The TV programme – Telekilaas, is nationally telecasted for specific grades. It is advised that schools do not rely on the telecasted lessons alone. The Telikilass lessons should be complemented with daily interactive sessions for students, via Google Classroom, YouTube, EduPage, TED-Ed, Moodle, or any other digital learning platform, approved by the MoE.

(ii) **KS 3 (Grades 7 and 8):** Teachers are advised to prepare lessons as per the contingency scheme of work and deliver the lessons using the digital learning platforms.

(iii) **KS 2 (Grades 4 to 6):** Teachers are advised to prepare lessons as per the contingency scheme of work and deliver the lessons using digital learning platforms.

(iv) **KS 1 (Grades 1-3):** Lessons with a focus on literacy and numeracy to be prepared and disseminated by using digital learning platforms.

(v) **FS (Pre-school LKG and UKG):** A play-based activity pack will be developed by preschool teachers and shared with the parents to be used at home.

The suggested digital platforms to be used are:
- Google Meet - Google Classroom
- YouTube - Google Drive
- TED-Ed - EduPage
- Filaa - Moodle

Source: MoE Circular No: 22-E/CIR/2020 /28 (16th March 2020) via the Maldives Emergency Response Plan for Education.

Challenges in the "Coping" Phase

Despite the MoE's best efforts to continue education during school closures, learning was severely interrupted due to unexpected challenges, in large part due to the mental health struggles faced by students and parents as a result of the Pandemic. In the first few months of the Pandemic following school closures, even the remote learning mechanisms were severely disrupted. When lockdowns were tightened, Telekilass session were discontinued as teachers were not able to go to the recording studios to continue lessons. While the MoE had also made every effort to ensure that learning continued as seamlessly as possible for Grades 7-12 with online learning platforms, parents, teachers and students expressed difficulty in carrying out their roles in the learning process during the early days of the Pandemic, when fear and uncertainty over the virus and its effects led to widespread mental anxiety and stress (MoE 2020). As a result, formal classes were discontinued for several weeks and the online learning platforms were utilized to deliver mental and psycho-social support to students. The MoE put together a concept plan to restart remote learning and continue this as needed, even after classes resumed for in-person learning (Figure 3.4) but despite these measures, it is not clear whether and how much learning took place during the school closures.

Moreover, ICT infrastructure and capacity were limited and despite the best efforts of the Government, students, teachers and parents faced serious digital barriers to remote learning. Internet penetration in the Maldives is deeper than in many other developing countries, but still weak--- a survey conducted in the early days of the Pandemic found that approximately 31 percent of students and teachers did not have access to the internet at home. This lack of connectivity created immediate barriers to accessing online learning platforms. Moreover, students and teachers also did not have the required digital devices to access content online. To address this shortage, the Government made arrangements for students and teaches to received 5-10 GB data packages, allowing them access to the internet (MoE 2020). Also, all students from grade 3 onwards were provided with Android tablets for remote learning. Even then, it was soon understood that teachers lacked the capacity to teach using digital tools and platforms (MoE 2020) To address this, the GoM initiated a program to upskill 2,000 teachers in the use of digital learning platforms albeit aware of the challenges in adequately addressing these skills gaps in the given time frame.

"Managing Continuity" in Maldives Education Sector during the COVID 19 Pandemic

In the second phase of the educator sector response, "managing continuity" schools prepare for and begin to reopen. This phase is likely to be complex, particularly in the context of a public health emergency (World Bank 2020). It will overlap in many ways with the coping phase, with a staggered reopening of schools, and possible cycles of closing and reopening as the public health situation evolves. The main aim in this phase should be to ensure that schools are ready for safe reopening; that students are in class are ready to learn and; to begin the process of recovering learning (World Bank 2020a). School safety is the initial priority in this phase and once schools are adequately prepared to re-open safely, the education system has to be mobilized to re-engage learners and restart and recover learning. Harvard university and the OECD have developed a comprehensive checklist which is can serve as a useful guide for schools to reference prior to reopening in the context of COVID 19 and also other emergencies and natural disasters (Reimers and Schleicher 2020). Several of the initiatives identified in this checklist have already been undertaken in the Maldives.

On July 1, 2020 the GoM eased lock down measures, allowing schools to begin reopening. From the outset, the GoM was aware of the importance of adapting school reopening efforts to the local context, and as such, reopening was a staggered process. The GoM's reopening guidelines allowed for reopening of schools from KS1-5 (Grades 1-12) only in islands where transmission was very low or nil. In areas such as the greater Male region, was transmission was more widespread, only KS 4 and 5 (Grades 9-12) were allowed to reopen for in-person learning. In those areas, remote learning measures would stay in place for lower grades until transmission was could be sufficiently reduced and the Pandemic was completely under control. The MoE also recognized that as long the Pandemic continued, blended learning models would have to remain in place, to allow schools and communities to adapt and switch between learning modalities depending on the local health situation and needs.

The health and safety of students, teachers and the broader community remained an overarching priority for schools as they reopened in the Maldives. The Maldives issued health and safety guidelines and protocols in advance of school reopening**.** Best practices and international guidelines clearly emphasize that the health and safety of the school community should be at the forefront of the school re-opening process. For the Maldives, the Government made it clear that this would be a pre-requisite for reopening. They prepared a tool-kit to assess the school readiness to reopen and they started the reopening in consultation with health authorities, in "safe islands", where there was no recorded incidence of COVID 19. The health protocols include measures to institutionalize physical distancing, including smaller class sizes, distance between students, safe hygiene and sanitation practices, including the promotion of hand-washing, classroom and school disinfecting procedures etc. The GoM has also been investing in the necessary infrastructure and resources needed to implement these health and safety protocols and this continues to be a priority for the Government.

The other major priority for the Government was to recover lost learning through curriculum rationalization and large-scale remedial programs. Students in the Maldives had effectively experienced about 4 months of school closures and the aim of the education sector was to recover lost learning through curriculum rationalization and large-scale remedial programs. It was evident that schools would not be able to cover the full syllabus identified for each respective grade. The country's National Institute of Education (NIE) began a process of curriculum adaptation, particularly for KS 1-3, to ensure that students would be able to learn the core competencies in the curriculum for a given year. Recognizing the need for remedial

programming, the GoM has also developed a large-scale remedial for literacy and mathematics, particularly for primary age children but also in other selected subjects in lower secondary grades (MoE 2020).

The GoM's education recovery plan has been guided by principles aimed at ensuring equitable and inclusive learning opportunities. Recognizing the high likelihood of resurgence of COVID 19 infections and the implications for in-person learning; the GoM placed an emphasis on developing mechanisms for optimized learning regardless of whether if schooling was remote or in the classroom (MoE 2020). To achieve this, they realize the importance of closing the digital divide through improving household connectivity to the internet etc. as well as several other measures. These include special support for, and outreach to teachers, to empower them and help them cope with the impact of the Pandemic and to help them to support student learning, wherever students were located.

Challenges in "maintaining continuity of learning"

A number of challenges have emerged in the first phase and second phases of the Pandemic; including that of meeting and maintaining WASH and safety needs for schools. The challenge of sufficient physical space and the constraints facing certain disadvantaged schools was already clear prior to the Pandemic. In fact, a join MoE/UNICEF study identified 55 schools in particular (more than a quarter of the total number of schools in the country) where the lack of physical space and adequate WASH facilities was a concern. Although plans were in place just prior to the Pandemic to address these shortcomings, the advent of the Pandemic itself and now, budgetary constraints due to the Pandemic means that these schools have remained inadequately resourced, and as such, unprepared to reopen for learning. With this large number of schools inadequately prepared and lacking the capacity to meet the standards for safe reopening, children in these schools are at greater risk of learning loss.

The second major challenge facing the sector is a teacher shortage brought on by the Pandemic. As previously discussed, approximately 22 percent of teachers in Government schools and 17 percent of teachers in private schools are expatriates, mainly from India. Many secondary school subjects, particularly in areas such as the sciences, commerce, accounting, English and computing are expatriates. Many of these teachers decided to resign and return to their home countries as soon as repatriation was possible, leaving the country with a severe shortage of teachers. This shortage is going to be difficult to address in the short term, making it more likely that even with the resumption of schools, the quality of learning will be affected, and ultimately this could further exacerbate learning loss. This is especially challenging for higher levels of the education system, where the shortage of teachers in critical subjects in likely to have serious consequences for education quality and learning outcomes.

The MoE recognized the lack of adequate capacity for psycho-social and school health support at the school level but has been able to find short term measures to remedy the situation. The Pandemic itself has had an impact on the mental health and well-being of students, and school principals highlighted this as a key concern in the school reopening process. However, even prior to the Pandemic, schools faced a shortage of counsellors. Only 28 percent of government schools had counselor, leaving the vast majority of schools without in-house psycho-social support. Moreover, only 27 percent of government schools have a School Health Officers. The Pandemic itself as well the response protocols only served to highlight these pre-existing gaps in the system, but such resource constraints are difficult to address in the near term because they require long term capacity and system building efforts.

Accelerating Learning: Looking beyond the Pandemic in the Maldives

The Maldives has begun looking beyond the Pandemic to explore the potential to build back better; investing in digital tools for teaching and learning and innovative pedagogical approaches. Early in the Pandemic the Maldives recognized that lost learning made up with innovative approaches to curriculum rationalization. As such, the Maldives has already begun competencies and skills in the abbreviated school year. The MoE is also focused on investing in digital infrastructure where possible to ensure that online and remote learning platforms are sustainable and effective. This includes expansion of the country's digital repository (FILAA portal) which houses all digital teaching and learning materials and resources. The challenge of teaching remotely has highlighted the need for innovate approaches to teaching and learning that are more learner centered. The Maldives has recognized the importance of capitalizing on learning innovations such as Project (or Problem) Based Learning (PBL) to accelerate learning. PBL allows students to carry out investigative centered learning, where students engage in the real world to solve problems that relevant to different subject areas (See Box 3.2 for more on PBL).

Box 0.2 Project/Problem Based Learning (PBL)

Project/Problem-Based Learning (PBL) is a pedagogical approach which uses complex real-world problems are as an opportunity to promote student learning of concepts and principles (rather than a direct presentation of facts and concepts). PBL can also be useful in cultivating critical thinking skills, problem-solving abilities, and communication skills. Moreover, it can also provide team building, collaboration, and research skills, and life-long learning. PBL can be incorporated into any learning environment and any subject area. It can be used in lab and design classes, or simply a tool to stimulate discussion in the classroom. PBL can also be used to create assessment items.

Source: CITL 2020

Challenges in "Accelerating Learning"

The Maldives has already begun investing in building a sustainable virtual learning solution, but more must be done to ensure that the appropriate infrastructure is in place to enable remote online education delivery. The Maldives internet penetration and reach is much wider than many of its regional counterparts, but there is much more to be done to make it equitable, especially for the most disadvantaged. Internet penetration in the Maldives stood at **7**1 percent in January 2020 (Kemp 2020), compared to about 41 percent in India, 56 percent in the Nepal and 34 percent in Sri Lanka. However, access to the appropriate digital devices for learning is not equitable and more needs to be done to provide the level of connectivity required to properly utilize many online learning platforms. Accordingly, the World Bank recommends "mandating that online learning opportunities be optimized for low bandwidth and poor latency conditions is advisable in most all contexts. Promoting the availability of off-line tools and approaches and downloadable can be similarly quite useful" (World Bank 2020b).

3.4 EDUCATION AND COVID 19: THE EXPERIENCE OF OTHER SMALL ISLAND DEVELOPING STATES (SIDS)

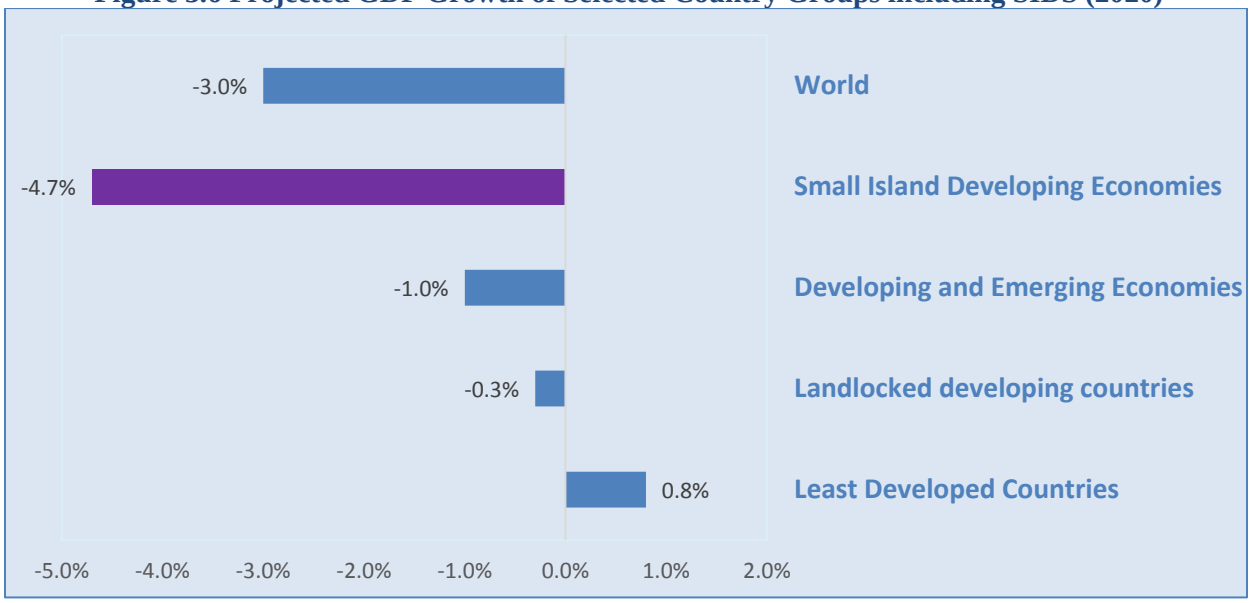
Maldives is classified as a Small Island Developing States (SIDS); a group of countries which are especially vulnerable to the impact of events such as the COVID-19 pandemic because of their social,

geographical, environmental and economic vulnerabilities (WEF 2020). 58 countries, with a combined population of 65 million fall into the UNESCO classification of Small Island Developing States (SIDS). The countries in this group range from high income countries such as Singapore and the Bahamas to upper middle- income countries such as Jamaica, St. Lucia and the Maldives, to lower income countries such as Guinnea-Bissau and Haiti. Although there are highly diverse group of countries, they fall under this category because they are "facing specific social, economic and environmental vulnerabilities" (UNOHRLLS 2018). According to the UN-OHRLLS[6], the common challenges faced by SIDS are: "a narrow resource base depriving them of the benefits of economies of scale; small domestic markets and heavy dependence on a few external and remote markets; high costs for energy, infrastructure, transportation, communication and servicing; long distances from export markets and import resources; low and irregular international traffic volumes; little resilience to natural disasters; growing populations; high volatility of economic growth; limited opportunities for the private sector and a proportionately large reliance of their economies on their public sector; and fragile natural environments (UNOHRLLS, 2020)".

1.1.1 Broad Impact of COVID 19 on Small Island Developing States.

Many SIDS have been spared the devastating physical health impacts of COVID 19 because they are more likely to be able to isolate themselves due to geography and because they took proactive measures to protect the health and safety of their citizens. Because of their remoteness and low population density some of the SIDs, such as Micronesia, Nauru, Solomon Islands and Vanuatu had no confirmed cases of COVID 19. Others, with similar characteristics but tourism-based economies had a few confirmed cases (relatively low compared to the rest of the world) and some community transmission but were able to isolate themselves and keep the Pandemic under control.

Figure 3.6 Projected GDP Growth of Selected Country Groups including SIDS (2020)



Source: UN 2020b

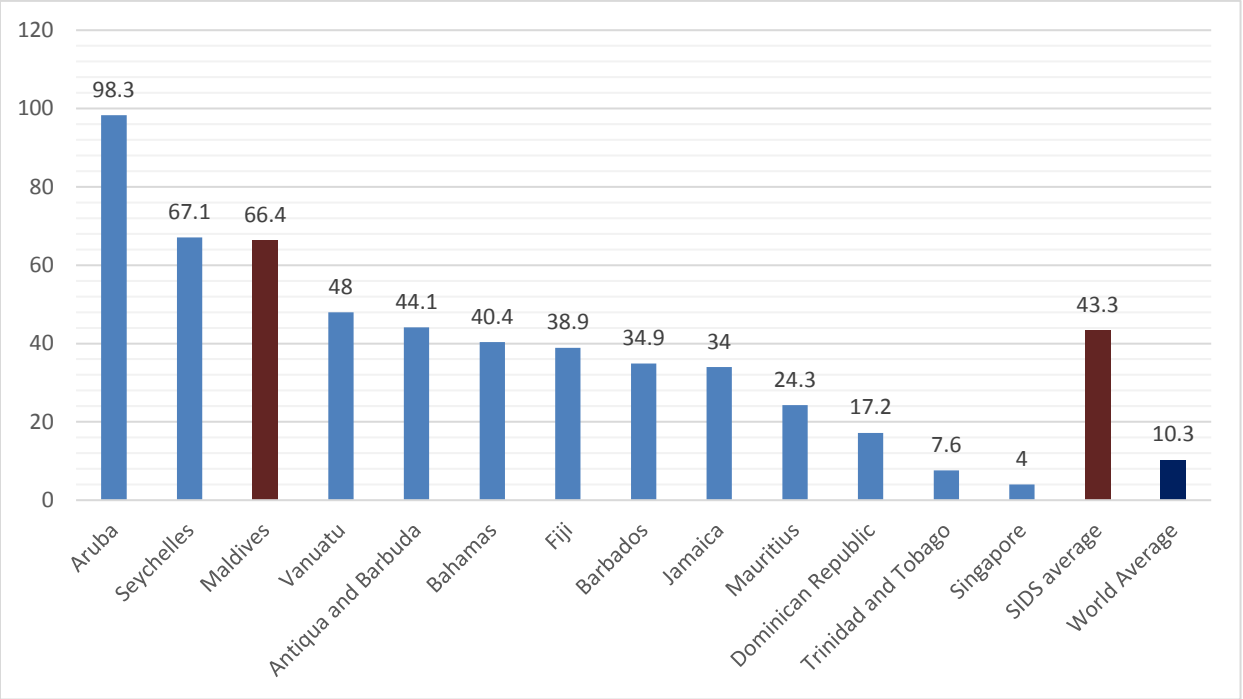
Although spared the immediate health impacts of COVID 19, SIDS may be disproportionately affected by the negative economic consequences of the Pandemic. For many SIDS, their tourism -based

[6] Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States

economies and their economic and social reliance on the world has meant that they have not been spared the economic and social aftershocks; and in fact, their existing vulnerabilities make it likely that they may experience more intense and longer term economic and social consequences of the Pandemic (UN2020b). Indeed, by UN estimates Small Island Development States are likely to see an even greater impact than the least developed countries, developing and emerging economies and the rest of the world (UN 2020b). This is in large part is because many small island economies are highly dependent on tourism. As Figure 3.6 shows, the average contribution of tourism to the GDP of SIDS is about 43 percent, as compared to roughly 10 percent for the world.

The Maldives, where tourism accounts for approximately two-thirds of the GDP, has been especially hard hit by COVID 19. Tourism plays an even larger role in the Maldives' economy, with tourism contributing about 66.4 percent to the country's GDP (Tateno and Bolesta 2020). With the hit to tourism, the World Bank estimates that GPD shrank by about 19.5 percent in 2020. While revenues shrank (by approximately 23.4 percent in Q1 of 2020), public spending increased by about 10 percent in the same period. Moreover, the Bank indicates that fiscal imbalances have widened significantly—with revenues cut in half (as compared to the corresponding period in 2019), but no commensurate adjustment in spending (World Bank 2020c). The country's fiscal deficit is projected to more than triple to 22.5 percent of GDP. (World Bank 2020c). Finally, it's estimated that COVID-19 will probably cancel the last five years' of gains in poverty reduction in the Maldives (World Bank 2020c).

Figure 3.7 Tourism Sector's Contributions to GDP in Select Small Island State

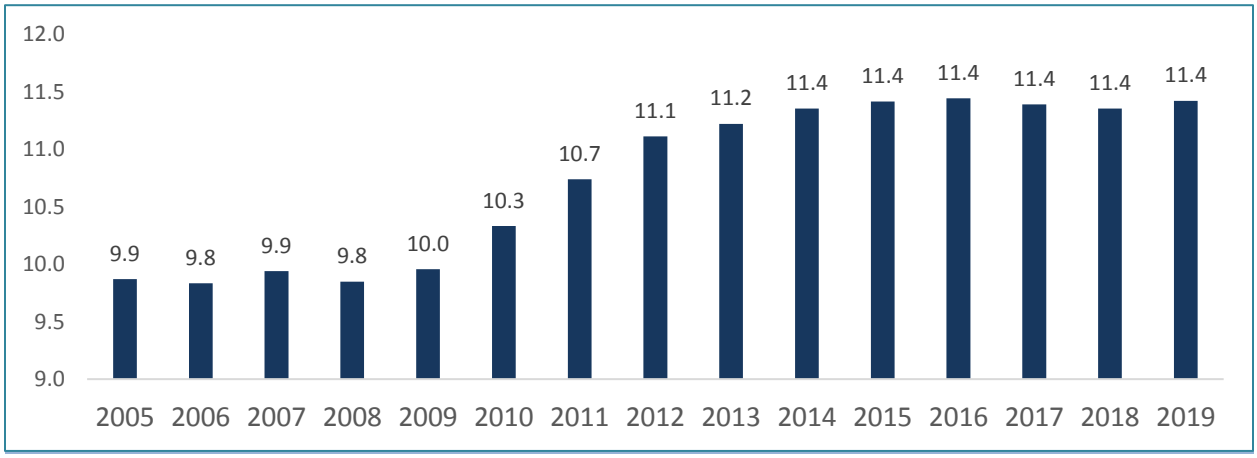


Source: Authors based on UNWTO and World Bank data

The Education Sector Experience of Small Island States with COVID 19: Impact and Response.

This next section reviews the educator sector's response to COVID 19 in other SIDS, with the aim of identifying a common set of challenges, and lessons learned and opportunities for SIDS as they build back their education systems in response to COVID 19.

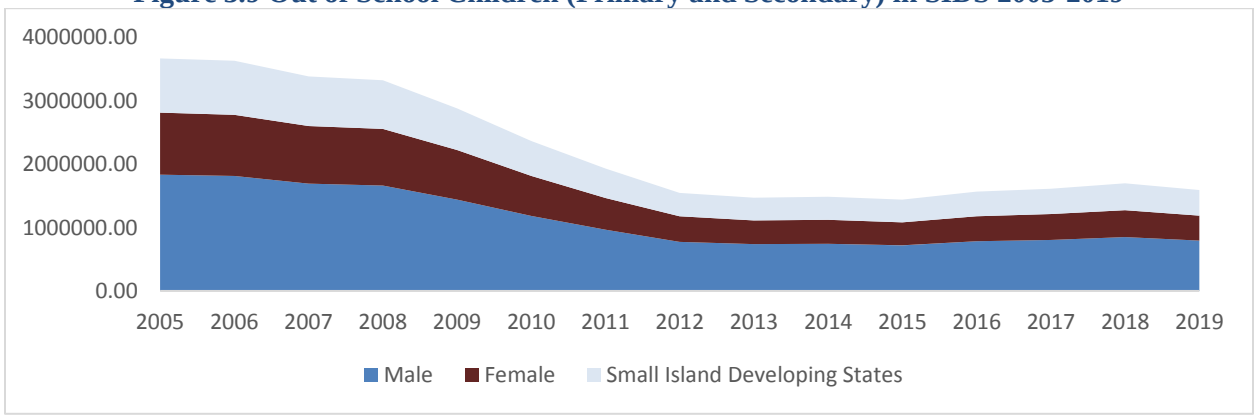
Figure 3.8 School Life Expectancy in SIDS 2005-2019 (Primary and Secondary)



Source: Authors based on UNESCO Institute of Statistics (UIS) database 2020

A review of the educational systems of SIDS reveals a number of common trends; including strong progress in access to education especially at the primary and lower secondary levels. In the last two decades, most SIDS have seen a steady progress in improving access to education, and many have achieved near universal levels of primary education (See Figure 3.7) In fact, the lower secondary education GER increased by 30 percentage points or more in many SIDS, including in Antigua and Barbuda, Comoros, Maldives and the Marshall Islands (UNESCO 2015). Like the Maldives, the numbers of out-of-school children in the SIDS had been declining over time (See Figure 3.8). These gains are notable and could be undermined by the impact of COVID 19 on education participation, particularly at the secondary level.

Figure 3.9 Out of School Children (Primary and Secondary) in SIDS 2005-2019



Source: Authors based on UIS data 2020

SIDS also share a number of common education sector challenges that intensify as a result of the Pandemic, among them: the quality of education and widening gender gaps at the higher levels of the system. International and regional assessments show that SIDS learning outcomes at the primary level are low. Even among the wealthiest SIDS, learning levels are low. For instance, among middle and high-income SIDS, only Trinidad and Tobago participated on the Progress in International Reading Literacy Study (PIRLS) but scored below the international levels and just barely achieved the intermediate benchmark

(Fiszbein and Stanton 2018). Results at the secondary level are also weak. The results of the CSEC[7], which almost all SIDS in the Latin American and Caribbean (LAC) region participate in, show that almost 60 percent of students did not attain the minimum score for entrance into higher education; 36 percent of students showed limited understanding of key mathematical concepts and 38 percent of students failed to attain a passing score on English (Fiszbein and Stanton 2018). Moreover, inequality in educational attainment has increased over time, particularly gender gaps; with girls outperforming boys in terms of access and performance.

The Education Sector Response of SIDS to COVID 19

In line with global norms and best practices, most SIDS education systems took a proactive approach to COVID 19, closed schools early on and launched remote learning programming to prevent learning loss. Most SIDS were proactive in closing schools for an extended period of time and transitioning to remote learning. Moreover, the response framework in most countries followed a similar paradigm to that of the Maldives; one guided by international norms and best practices. As such, both the Organization of Eastern Caribbean States and the CARICOM laid out plans that reflected the same priorities as the Maldives: i) attention to and care for the health, safety and well fare of the school community; ii) the development and dissemination of WASH standards and practices both during the lock-down and when schools would reopen; iii) an emphasis on inclusivity and attention to the most vulnerable populations and; iv) a reliance on digital platforms for education programming both during the lockdown and began to reopen. See Box 3.3 for a summary of the Organization of East Caribbean States (OECS) joint education sector pandemic response and strategy.

Figure 3.10 Pillars of COVID 19 Education Sector Policy Response of the Organization of East Caribbean States (OECS)

1) Transition to a Digital Education System: while there have been advances in increasing internet access to schools and children, some children and some communities, still have limited access to fast and reliable internet. This results in some children in each of the MS not having equal opportunity as their more connected peers. Appropriate policies at the regional level are required so that programs are implemented on a national basis to improve access to quality internet and thus bridge the digital divide and allow transition to a Digital Education System.

2) Strengthen Safety Nets for students / Ensuring the wellbeing of students both in and out of school: Schools have always had a responsibility for the physical, psychological and socioeconomic needs of students and educators, in and out of school. This can be illustrated by the fact that Dominica has the expansion of the social safety net programs to schools as in of their KRAs. The extent of the issues being faced have been exacerbated by the COVID-19 pandemic. Hygiene and sanitation in schools remains of critical importance for the health and well-being of whole school communities and attention should be taken of all WASH and kitchen facilities. (Should we specify water supply?)

[7] In the English-speaking Caribbean, the Caribbean Examinations Council administers the exam for the Caribbean Secondary Education Certificate (CSEC), required for secondary school completion and entrance into regional higher education programs.

3) Promote Engagement: To Facilitate the coordination of interventions to increase awareness and partnerships to mitigate the impact of the COVD-19 pandemic. Work under this component will be guided by the OECS COVID-19 Response Communications Strategy.

Source: Excerpt from the OECS 2020 COVID 19 Education Sector Response Strategy

A review of the educator sector response in some SIDS highlights best practice that may be useful for others to emulate, such as targeted support for the most vulnerable students. It has been repeatedly noted that the most disadvantaged children are likely to face the heaviest impact from COVID 19; not only because of the disruption in education delivery but also because of the social safety interventions delivered through school-based programming, such as school meals. Countries such as St. Lucia have a well-developed data base for tracking vulnerable children, allowing them to micro- target social support as needed to these children as needed. Grenada and Anguilla's Ministries of Education have developed strong collaborative mechanisms to work with the Ministry of Social Development to provide special nutritional and social support to vulnerable children. Grenada has also developed a book scheme for children from vulnerable homes, allowing them to access reading material they would not otherwise be able to (OECS 2020).

SIDS have had experience with severe disruption caused by natural disasters, and best practices from these previous catastrophic events have been integrated into the Pandemic response. Education systems in the SIDS have been repeatedly disrupted by natural disasters such as hurricanes, which disproportionately impact these small island nations. Through these events, SIDS have developed a repertoire of initiatives to promote resiliency among students and restart learning following traumatic disruption. One such program is the "Return to Happiness" initiative, where children participate in various activities to help them in their post-traumatic recovery. Many SIDS are now including some version of this programming in their pandemic response, to help children navigate the impact of the Pandemic on their emotional health and well-being. See Box 3.4 for more on the "Return to Happiness" Initiative.

Box 0.3 "Return to Happiness": Protecting mental health and well-being

Return to Happiness (RTH) is a psychosocial intervention program developed by UNICEF for children ages of 0-18 years who have experienced trauma from disaster, conflict or violence. The program is aimed at providing support to children in order to help them recover from stressful events.

The program was launched in the Caribbean (implemented in Antigua and Barbuda, Grenada, St. Lucia, the Turks and Caicos Islands, St. Vincent, and the British Virgin Islands (BVI)) to help them respond to the hurricanes that devastated the island nations in 2017.

The goal of the Program is to create opportunities for children who have experienced trauma to process their experiences through a series of guided play-based activities aimed at reducing their post-disaster anxieties and recovering a sense of joy and security.

Source: Childline 2020

Like other education systems, preventing learning loss and accelerating learning recovery is a critical part of COVID 19 education response and some SIDS are finding unique ways of coping with the

challenge. Continuing learning in the midst of the Pandemic response and recovery phase has been challenging for SIDS, like most other countries; but SIDS are finding innovative ways to recover learning. The Pandemic halted school leaving examinations in the higher secondary grades in many countries. Moreover, in the run up to the scheduled exams, learning was stunted as schools were closed. To maintain learning, the Organization of Easter Caribbean States employed a strategy to ramp up learning and preparation for the Common Entrance and Caribbean Secondary Education Certificate examinations by developing short subject matter videos to help students gain mastery of key content and skills in advance of the rescheduled examinations. These videos have been distributed via both traditional and digital mediums.

Teacher training, particular in the use of ICT for distance learning has been deployed innovative ways by countries in the Caribbean and the Pacific Islands. Even as children return to school, it is increasingly apparent that remote learning will continue in some form, either through hybrid and blended learning models, or full time in areas where the virus re-emerges. A key challenge that countries across the world, including most SIDS, is that teachers lack the capacity to teach remotely using ICT. A number of countries in the Caribbean have used Blackboard (an online teaching tool) to reach teachers and build their capacity for teaching remotely using ICT (See Box 3.4 for more on this initiative) (UNESCO 2020). Similarly, Khan Academy, Bibliotheque sans Frontieres, and Moodle are conducting large scale teacher training focused on using open source platforms for ICT in education. The aim is to help teachers to set up remote classrooms at home (UNESCO 2020).

Box 0.4 Training Teachers to use ICT for Remote Learning in the Caribbean

With the support of UNESCO, the Caribbean countries launched a course "Professional Development for Teachers for Blended Learning and Online Strategies. This is four-week teacher training course conducted by Blackboard that aim to develop teaching capacity in distance education. Through a cascaded training model, the program is expected to reach about 20,000 of 91,719 affected teachers in the Caribbean.

Source: UNESCO 2020

However, the experience of SIDS also reveals challenges they face, particularly in terms digital and ICT related barriers to remote education delivery. Although SIDS, like the rest of the world recognized the importance of technology and digital education to sustain learning during the Pandemic, many lacked sufficient ICT infrastructure to ensure a smooth transition to remote learning. In Jamaica for instance, a survey launched in mid-2020 found that approximately 34 percent of children did not have exclusive access to a digital device for learning and only a little over 50 percent of both primary and secondary school students had access to a computer at home. The OECS identified this as one of the key constraints in the early days of their pandemic response, stating that "all states [Antigua and Barbuda, Commonwealth of Dominica, Grenada, Montserrat, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines] have experienced enormous problems with the availability of the devices required for both teachers and students to access the internet. This whole situation has highlighted the fact that some students and some communities are at an enormous disadvantage. There are instances in many MS of whole communities not having access to the internet" (OECS 2020).

The inequalities in access and quality that persisted prior to the Pandemic will likely persist and widen unless SIDS invest heavily in addressing these issues. As discussed in previous sections of this report, COVID 19 is likely to further disadvantage the most vulnerable children and countries. The

challenge for SIDS is greater because there were already significant inequalities prior to the Pandemic that are only likely to widen without intervention. The fault lines lie mainly along the lines of socio-economic and gender disparities; and these persistent inequalities in education outcomes in the SIDS are likely to be exacerbated with the economic impacts of COVID 19 (UNESCO 2020). The CARICOM estimates that roughly the same numbers of boys and girls have been affected by COVID 19 school closures. However, while girls are impacted more on the education front, boys have historically been more disengagement from the education sector due to poverty (UNESCO 2020). This disengagement may intensify trends in participation at the higher levels of the secondary education system; widening the gender gap that already is disadvantages boys in the region.

3.5 ACCELERATING LEARNING: OPPORTUNITIES AND CHALLENGES FOR THE MALDIVES AND OTHER SMALL ISLAND STATES TO BUILD BACK BETTER

"School after this pandemic will be different…countries should seize the opportunity provided by the crisis response and innovations to build their systems stronger than before (World Bank 2020). In the face of the Pandemic, experts and policy makers are increasingly aware of the urgency for education systems to build back better than before. They argue that the learning crisis, already underway prior to COVID 19 has intensified with the Pandemic and it is not enough to recover lost learning. In order to make adequate progress learning must be accelerated and educational gaps must be closed (World Bank 2020, UNESCO 2020, Vegas et al. 2020). They also argue that the Pandemic offers a window of opportunity to rethink and reimagine education and improve and scale up innovations that emerged during COVID; especially as they relate to digital technology in learning (UNESCO 2020). It appears that COVID19 has presented countries with the opportunity to build back strong and more equitable education systems that can deliver not just schooling, but learning.

The impetus to accelerate learning and build back better may be even greater for small island nations such as the Maldives. The Pandemic has highlighted structural weaknesses in the economies of many SIDS. As previously discussed, many SIDS have economies that are not well diversified, highly reliant on tourism and highly sensitive to external economic shocks. Threats of climate change and natural disasters have made these economies especially vulnerable and it has become increasingly clear to their policy makers that they need to diversify their economies to fulfill their development potential. The ability to do this, however, will depend in large part on their ability to accelerate human capital development; and the education sector, which is at the heart of human capital development, will be a key to this. In disrupting their education systems, COVID19 and post-pandemic recovery phase presents these states with a unique opportunity to build back more resilient education systems that will serve to accelerate learning.

Policy Option One: Scale-up effective COVID-19 response policies

The Pandemic offers a platform on which to build back better in three ways: first, by improving and scaling up effective COVID-response policies. The Pandemic forced education systems to innovate to prevent learning loss and build resilience. A key priority for Governments will be to identify and further develop these initiatives and integrate them to improve access to and the quality of education. Here, the World Bank identifies four promising areas for further consideration: i) Effective uses of technology in remote-learning systems; ii) Early-warning systems to prevent dropout; iii) Teaching at the right level and;

iv) Ramped-up support for parents, teachers, and students, including socioemotional support (World Bank 2020). But there are likely other lessons learned that are more specific to country contexts, and it is important that countries take these into account when reflecting on how they can build back better.

Policy Option Two: Implement deeply needed education reforms

COVID-19 also offers a unique window of opportunity for systems to review and focus on deeper education reforms. The world has never witnessed such a long term and widespread disruption of education. This has created unique synergies for experts and policy makers to review entrenched education policy and to reimagine education. Countries have the opportunity to review deeply embedded educational practices and policies. In fact, many countries, including SIDS such as the Maldives have had to postpone high-stakes secondary school examinations, one deeply entrenched assessment practice in many education systems. The pressures of these exams and their postponement is expected to take a toll on the students and their families. The Pandemic offers an opportunity to take a second look at such aspects of the system and reflect on how to reform them to improve education systems in the long-term. Likewise, the Pandemic has highlighted the importance of a paired down and focused curriculum. The Maldives, like many countries has already had to do that to ensure that learners acquire all the essential skills and competencies in an abbreviated school calendar. This "refocusing" or rationalizing process that is taking place in the second phase can be a springboard for deeper evaluation of the school curriculum.

Policy Option Three: Rebuild an education system which is attentive to the most vulnerable students

The Pandemic has also highlighted the vulnerabilities of the most disadvantaged students and there is now an opportunity for systems to put in place resiliency building measures and programs; especially investing in tools to monitor the most vulnerable and socio-emotional skills programs to build resilience in students and the wider community. The most vulnerable children have relied on education systems not only for education, but also to supplement nutritional needs and to serve other social safety and monitoring functions. Prepared learners are ones that have the necessary health, welfare and protection to optimize their educational opportunities. It is important that education systems recognize the part they play in this, and the synergies between health, social protection and education. This will help to ensure that systems are in place to monitor the most vulnerable not only to ensure that they don't drop out, but also to ensure that their health and social welfare needs are attended in spite of crisis. Resiliency can also be cultivated through the school curriculum itself. Socio-emotional learning (SEL) is now widely acknowledged as critical for educational attainment and also to build internal dispositions such as self-confidence, independence and purpose, all of which can help children to recover from shocks and be more resilient (USAID 2020). Several programs have been developed to promote SEL, particularly in the aftermath of emergencies and crisis. Box 3.5 presents an example of the SEL program.

Box 0.5 The Children's Resilience Program

The Children's Resilience Program was developed in 2010 by Save the Children Denmark and the Psychosocial Centre of the International Federation of Red Cross and Red Crescent Societies. The program is a nonclinical psychosocial and protection methodology that focuses on children's positive coping and resilience. The Program comprises 8-16 structured workshops for children 10-16 years old aimed at:

- Improve cooperation and peaceful interaction between children.
- Improving the motivation to play, problem solving and positive attitude to others.

- Enhance positive expectations to the future.
- Enhance impulse control (in relation to aggressive behavior and/or risk-taking behavior.
- Enhance capacity and awareness about self-protection and protection of peers.

The program is designed to be implemented for children in and out of school, e.g. during or after disasters, in situations of armed conflict, for children affected by HIV, or as part of preventative social work.

Source: Save the Children 2020

Policy Option Four: Harness the Power of Technology to Ensure Learning Continuity in Crisis

The challenge and promise of technology to deliver learning has come to the forefront in the education sector's response to COVID19. With school closures, education systems moved quickly to deliver education remotely. Many explored options to utilize technology for teaching and learning. However, very few (if any) education systems were prepared to deliver education exclusively on digital and online platforms at scale (World Bank 2020). Even in countries and areas where internet penetration was high and digital device were widely available, transitioning to online learning was a challenge. It was even more so in countries and places were internet penetration was low and digital devices were not widely accessible. Nevertheless, policy makers and experts realized the potential of technology in education delivery and most countries, including the Maldives made significant efforts to utilize online learning tools and platforms to continue learning during the Pandemic. For the SIDS, which are more vulnerable to natural disasters, where the population is widely dispersed and many are more remote, and where the impacts of public health emergencies like COVID are more profound, educational technology may have an even greater role to play in maintaining learning continuity and accelerating progress in learning.

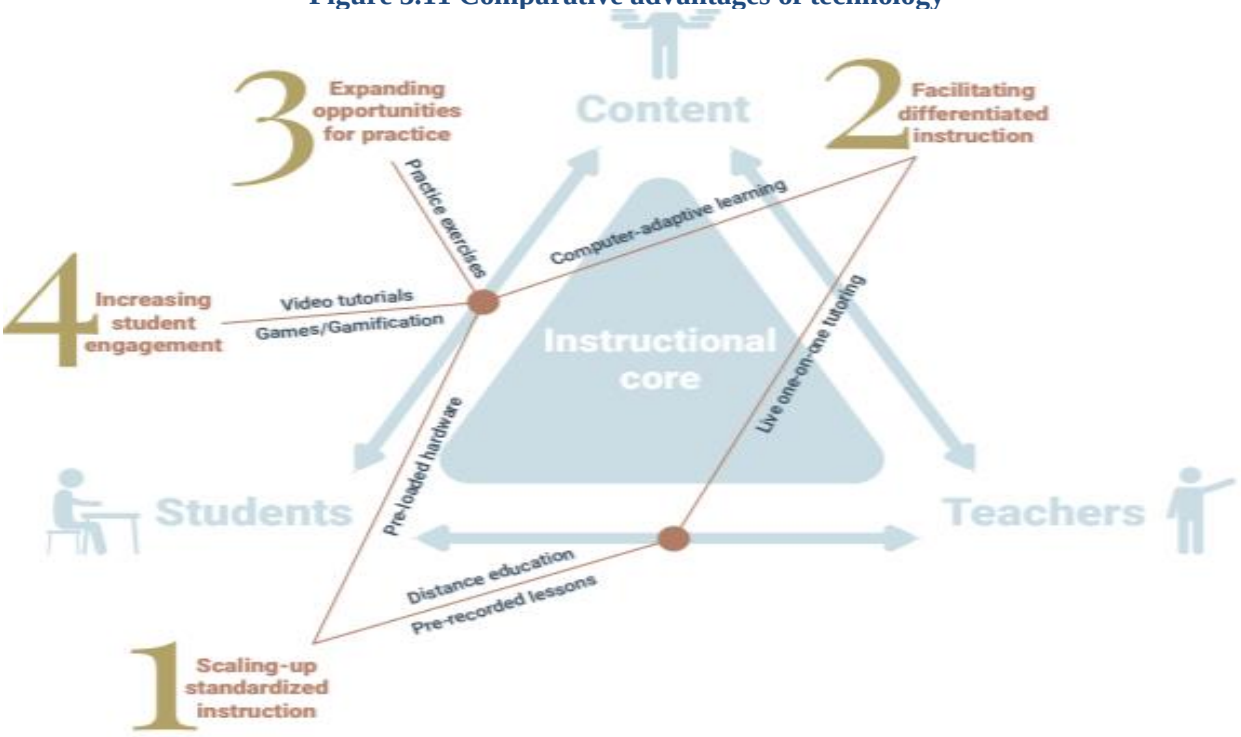
However, the promise of education technology must be considered with caution. COVID 19 has forced students, teachers and education systems to engage with education technology more than ever before. As such, it is important to note here that the evidence from multiple well-designed studies suggests that simply equipping students with educational technology hardware has little to no effect on student learning (Ganimian, Vegas and Hess 2020; Tausan and Standard 2018) In some cases, research indicates that it may have adverse impacts (Cueto and Malamud 2015; Cristia, Ibarraran, Cueto, Santiago and Severin 2017). As such, it may seem like education technology has not delivered on its promise (Ganimian, Vegas and Hess 2020). Nevertheless, the urgency of the moment begs a closer look at the promise of technology with a view to identifying strategies and frameworks to employ it effectively in the service of education.

The first step to utilizing technology well is to assess a country's readiness to deploy it. Ganimian et al. 2020, having reviewed the evidence base for the use of technology in education caution Governments to take stock of their readiness to use it. They suggest that prior to investing in education technology, a system should assess: "(a) specific needs to improve student learning (e.g., raising the average level of achievement, remediating gaps among low performers, and challenging high performers to develop higher-order skills); (b) infrastructure to adopt technology-enabled solutions (e.g., electricity connection, availability of space and outlets, stock of computers, and Internet connectivity at school and at students' homes); and (c) capacity to integrate technology in the instructional process (e.g., students' and teachers' level of familiarity and comfort with hardware and software, their beliefs about the level of usefulness of technology for learning purposes, and their current uses of such technology)" (Ganimian, Vegas and Hess

2020). Another way to view this would be to effectively view these as the pre-conditions or absence thereof, for the adoption of the education technology in the service of learning.

Secondly, Governments must look at which education technologies they should invest depending on their educational goals; providing distance education is one such goal. Different educational technologies serve different purposes. Here again Ganimian et al. 2020 offers policy makers a new framework, based on an assessment of the comparative advantages of technology to: 1) scale up standardized instruction; 2) facilitating differentiated instruction; 3) expanding opportunities for practice and; 4) increasing student engagement—see Figure 3.9 (Ganimian, Vegas and Hess 2020). COVID 19 has compelled Governments to explore how the function of technology to deliver standardized quality content at scale— and this type of technology may be useful in "hard -to -staff" schools rural or remote areas and instances where teachers are weak or absent. Here, technology may provide a solution through pre-recorded or live lessons and the distribution of hardware preloaded with educational content (Ganimian, Vegas and Hess 2020). COVID has made this the need for distance education a short-term imperative around the world; but this is an abiding challenge for small island nations such as the Maldives due to their geographical challenges.

Figure 3.11 Comparative advantages of technology



Source: Ganimian, Vegas and Hess 2020

Technology has the potential to do more than deliver distance education but should ultimately be viewed in terms of its comparative advantages. (Ganimian, Vegas and Hess 2020). It is important to end with the recognition that the promise of technology extends beyond the distance education. There is a promising role for technology in delivering differentiated instruction, expanding opportunities for practice

and increasing student engagement. Some technologies such a Computer- adaptive learning (CAL) in particular, has shown itself to be especially promising, particularly in instances where access has been scaled up rapidly, often at the cost of quality (Muralidharan et al. 2017). Others, such as video tutorials may be best utilized as complement to in-classroom instruction (Ganimian, Vegas and Hess 2020). Regardless, reviewing the evidence on the use of technology in education provides shows us that: a) education technology hardware does not in itself improve learning (i.e. a digital textbook will not in itself deliver better learning outcomes than a regular textbook) and; b) context and purpose is key because different technologies, for different purposes, deliver different results depending on the context.

Policy Option Five: Establish a "reserve fund" to address shortfalls in education financing during periods of crisis.

A reserve fund for education may help to mitigate broader economic shocks that negatively impact education financing in the Maldives. Since the start of the COVID-19 pandemic, Governments around the world have invested over $11.8 trillion in funding to support public health systems to fight the pandemic and mitigate economic shocks (UNESCO 2020). UNESCO estimates that less than one percent ($91 billion) went to support education; regardless of the huge impact of COVID-19 on education systems worldwide. Moreover, even with projections of an economic recovery in 2021, experts project that education spending may stagnate or even decline as countries attempt to manage the budget deficits in the wake of the Pandemic (Al-Samarrai 2020). Likewise, as previously discussed, COVID-19 has had a significant impact on the Maldives' economy—resulting in a GDP contraction of approximately 19.5 percent in 2020 and with it, substantial declines in the revenues for the Government (Al-Samarrai 2020). Although the economy is projected to begin recovering in 2021, its economic structure makes it highly vulnerable to global economic shocks such as the Pandemic. Given the importance of human capital development to the Maldives' development strategy, protecting education financing must be a priority for the country. As such, it will be important that the country establishes some fiscal mechanism to mitigate the impact of economic shocks on the education sector. One such instrument may be a reserve fund, that can be utilized to address shortfalls in education funding in the event of an economic crisis.

Conclusion

It is important for the Maldives and other Small Island Developing States to view COVID 19 and its aftermath as a unique opportunity to rebuild their education systems to accelerate learning. The unique and interrelated economic, geographical and social challenges of SIDS make it an even greater imperative to build back better. Technology holds promise, but it is not a panacea. The key to accelerating learning lies in a four-fold strategy: scaling up promising innovation that emerged from COVID 19; implementing needed educational reforms highlighted by the Pandemic; building resilience by protecting and strengthening the most vulnerable; and deploying technology to serve the needs of the learners.

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