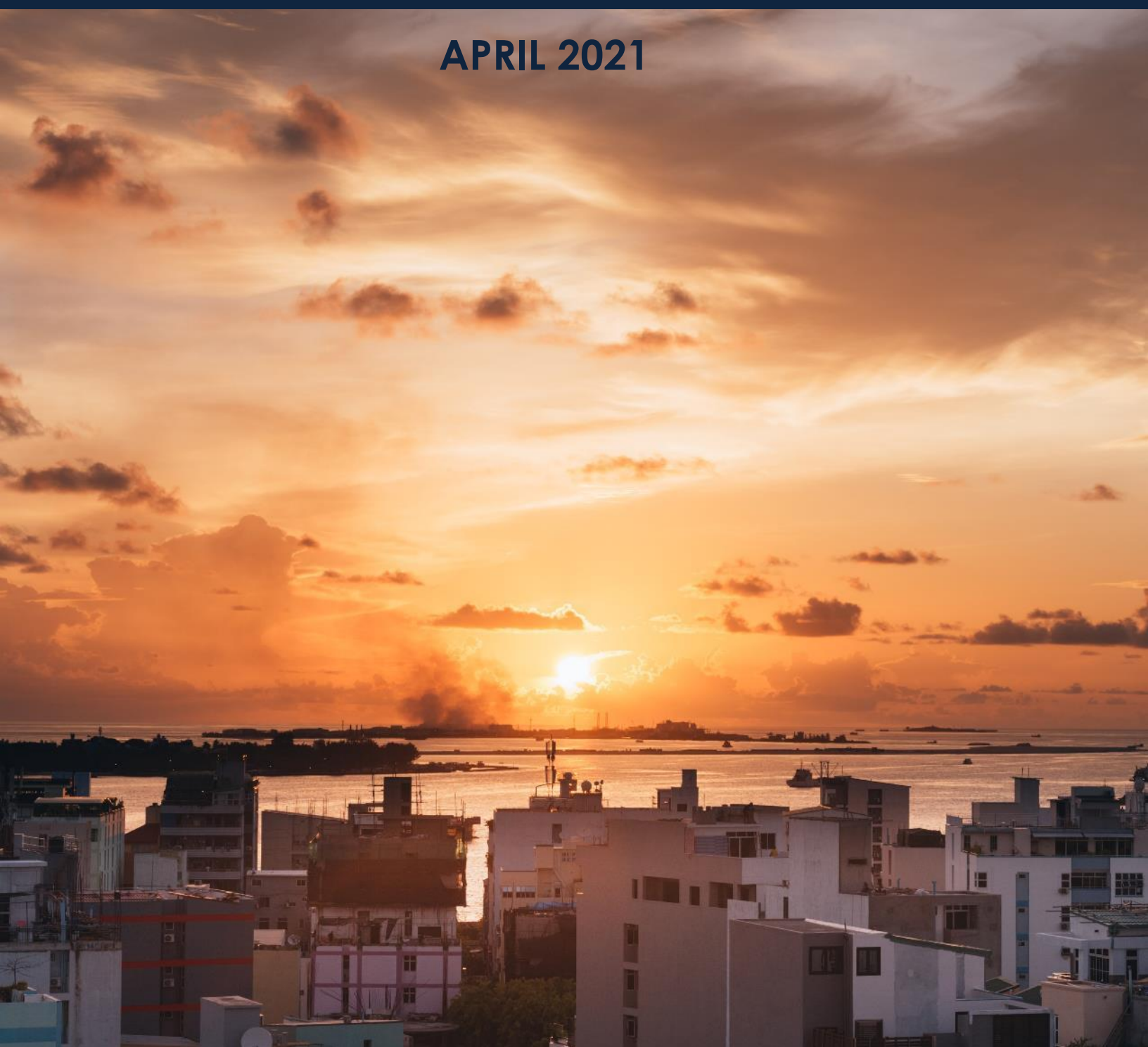


MALDIVES DEVELOPMENT UPDATE

APRIL 2021



A DIGITAL DAWN

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Preface

The Maldives Development Update (MDU) has two main aims. First, it reports on recent developments in the Maldivian economy, placing these in a longer-term perspective and in a global context. Based on these developments, it analyzes the outlook for the Maldivian economy. Second, the MDU provides a more in-depth examination of a selected topic that is relevant to the country's medium-term development challenges. It is intended for a wide audience, including policymakers, business leaders, think-tanks, non-governmental organizations, and the community of analysts and professionals interested in Maldives.

The MDU was prepared by Fernando Im and Pui Shen Yoong (*Macroeconomics, Trade and Investment Global Practice, South Asia Region*), with assistance from Eddy Quach Trang. The special focus topic (Part B) on digital development was written by Gohar Malumyan, Junko Narimatsu and Pui Shen Yoong, with guidance from Siddhartha Raja (*Digital Development Global Practice*). The team is grateful to Upamanyu Datta (*Poverty*), Namooos Zaheer, Amila Indeewari Dahanayake, Adja Mansora Dahourou Simpure (*Finance, Competitiveness and Innovation*), and Thomas Walker (*Social Protection & Jobs*) for their inputs to Part A of the publication, as well as Hawwa Nashfa, Hideki Higashi, Gyorgy Bela Fritsche (*Health, Nutrition and Population*), Kwabena Amankwah-Ayeh, Suranga Kahandawa, Atishay Abbhi, Armando Guzman, Jessica Schmidt, Keiko Sakoda and Priyanka Dissanayake (*Urban and Disaster Risk Management*), Shobhana Sosale (*Education*) and Bertram Boie (*Digital Development*) for their insights and comments on Part B. The team also thanks Faris Hadad-Zervos (*Country Director for Maldives, Nepal and Sri Lanka*), Zoubida Allaoua (*Director, Equitable Growth, Finance and Institutions – EFI, South Asia Region*), Chiyo Kanda (*Country Manager, Maldives and Sri Lanka*), Manuela Francisco (*Practice Manager, Macroeconomics, Trade and Investment*), Nicole Klingen (*Practice Manager, Digital Development*), Taehyun Lee (*Lead Country Economist, EFI*), Aurélien Kruse (*Lead Country Economist, EFI*) and Mustapha Nabli (*Consultant, EFI*) for their guidance and comments on the report. Sashikala Jeyaraj provided valuable administrative support and the formatting of the report, while Shadiya Adam, Dilinika Peiris and Sudip Mozumder led dissemination efforts.

The report was prepared based on published data available on or before March 30, 2020. Data sources included the World Bank, International Monetary Fund, Maldives Monetary Authority, Ministry of Finance, National Bureau of Statistics Maldives, press reports and data from Ookla® that are not publicly available. The team thanks the Ministry of Finance Maldives, the Ministry of Economic Development and private sector representatives for their inputs into the document.

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Previous report editions:

- June 2020: [In Stormy Seas](#)

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Abbreviations

ACH	Automated Clearing House
CAR	Capital Adequacy Ratio
cif	Cost of freight
CPI	Consumer Price Index
DAI	Digital Adoption Index
EOCC	Emergency Operations Coordination Center
ERP	Enterprise Resource Planning
fob	Free on board
GDP	Gross Domestic Product
HIES	Household Income and Expenditure Survey
ICT	Information and Communications Technology
ISP	Internet service provider
LAR	Liquid Asset Ratio
MDU	Maldives Development Update
MEMIS	Education management information system
MMA	Maldives Monetary Authority
MoCST	Ministry of Communications, Science and Technology
MRR	Minimum Reserve Requirement
MSMEs	Micro, Small and Medium Enterprises
pp	percentage point
PPP	Purchasing Power Parity
PSIP	Public Sector Investment Program
RBI	Reserve Bank of India
RTGS	Real Time Gross Settlement System
SAP	Strategic Action Plan
SBI	State Bank of India
SIDS	Small Island Developing States
STEM	Science, technology, engineering and mathematics
STO	State Trading Organization
T-bills	Treasury Bills
T-bonds	Treasury Bonds
TVET	Technical and Vocational Education and Training
UN	United Nations
UNDP	United Nations Development Programme
y-o-y	year-on-year

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Executive Summary: A Digital Dawn

The COVID-19 pandemic brought global tourism and travel to a standstill. Thus, although the health impact of the pandemic has been fairly contained in Maldives, its economic consequences have been devastating. To contain the spread of the virus, the country closed its borders for the first time in history, between March 27 and July 15, 2020, leading to a sudden stop in tourism – the main driver of growth, jobs, and revenues.

According to preliminary official estimates, real Gross Domestic Product (GDP) contracted by 33 percent in the first nine months of 2020, year on year (y-o-y). Only 555,494 tourists visited Maldives in 2020 – the lowest number since 2002 and 67 percent lower than the 2019 record high of 1.7 million tourists. Construction activity also came to a halt, owing to logistical difficulties and COVID-19 outbreaks among foreign workers. The World Bank estimates that the Maldivian economy contracted by 28 percent in 2020. To put this in perspective, real GDP contracted by 13.1 percent in 2005 following the 2004 Indian Ocean tsunami.

The overall price level fell by 1.4 percent on average in 2020, reflecting weak demand, low global oil prices, government subsidies on utilities, and temporary relief on housing payments. Lower telecommunications prices also helped, as service providers adhered to the government's call to facilitate access to the Internet during the pandemic. Despite deflation, the poverty rate is estimated to have increased by 5.1 percentage points in 2020. The pandemic has also disproportionately affected women's health and incomes.

With the drop in tourism, government revenues plummeted. Total revenues and grants fell by 35 percent y-o-y due to the impact of the pandemic on economic activity and tourist-dependent tax and non-tax revenues. Although non-priority expenditures were reduced, total expenditures were only 4.5 percent lower than in 2019. This is because the government increased spending on capital expenditures relative to 2019 and spent more on health, social and economic relief measures. As a result, the fiscal deficit reached nearly USD 900 million or 20 percent of estimated GDP.

The large public and external financing gaps were mostly met by support from bilateral donors, especially the Government of India, and international financial institutions. Claims on the central government increased due to higher issuances of T-bills and T-bonds,

especially to the State Bank of India Malé as part of the Government of India's financial assistance of USD 250 million). The government also temporarily monetized the deficit, obtaining USD 262 million through short-term advances from the Maldives Monetary Authority (MMA) in July 2020. Total public and publicly guaranteed debt rose from USD 4.4 billion or 78.4 percent of GDP in 2019 to USD 5.6 billion or 139.3 percent of estimated GDP in 2020.

The MMA took proactive measures to preserve monetary and financial conditions. With the sharp decline in travel receipts, shortages of US dollars led the parallel market rate to widen. The MMA activated a USD 400 million swap agreement with the Reserve Bank of India to reduce pressures on the exchange rate. Lower minimum reserve requirements helped inject more liquidity to the financial system. In addition, a loan moratorium provided short-term relief to both firms and households.

Maldives is expected to experience a slow but steady recovery from the economic crisis caused by COVID-19. Real GDP is expected to grow by 17 percent in 2021 and 11.5 percent in 2022. This is based on an assumption that 1 million tourists will visit the country in 2021, climbing to 1.4 million in the following year. Tourists have been steadily returning, with nearly 100,000 arrivals per month in January and February 2021 (albeit still 42 percent below pre-pandemic levels). However, the forecast assumes that the 2019 record of 1.7 million tourists will only be reached in 2023, when global tourism and aviation return to pre-pandemic levels.

External and public financing needs continue to be significant. The current account deficit is expected to widen as the normalization of services exports from tourism would be linked to an increase in imports and remittance outflows. The fiscal deficit is expected to decline as revenues recover, but remain in double digits relative to GDP. The 2021 Budget projects a substantial increase in expenditures even as revenues have not yet fully recovered. The government plans to ramp up infrastructure projects under the PSIP, half of which are to be externally financed by loans. With higher growth and a smaller fiscal deficit, the debt-to-GDP ratio is projected to moderate, but remains high.

	2019	2020e	2021f	2022f	2023f
Real GDP Growth (%)	7.0	-28.0	17.1	11.5	8.3
Inflation (%)	0.2	-1.4	2.5	1.1	1.0
Current Account Balance (% of GDP)	-26.8	-26.3	-27.1	-27.5	-27.7
Fiscal Balance (% of GDP)	-6.6	-20.1	-18.5	-15.2	-12.7
Debt (% of GDP)	78.4	139.3	135.2	132.1	131.4

Note: Estimates and forecasts as of 18 March, 2021.

Source: World Bank estimates for 2020-2023.

There are both upside and downside risks to the forecast. Should the normalization of international travel occur more quickly than anticipated as more people are inoculated from COVID-19, the outlook could improve. However, the opening up of other tourist destinations would mean intensified competition for Maldives. On the other hand, there is much that is still unknown about the effectiveness of existing vaccines against multiple new variants of the virus. Should the vaccine rollout be slower than expected in major tourist markets, leading travel restrictions to persist for a longer period, this could dampen the outlook for tourism and hence growth. In the medium term, however, Maldives' growth prospects remain strong given its unique reputation as a luxury destination. The expansion of the main international airport and new resorts in the pipeline should also boost tourism and growth.

While improving access to basic services and infrastructure are critical to Maldives' longer term development prospects, the same can be said about maintaining fiscal and debt sustainability. The pandemic has led to a sharp increase in debt vulnerabilities across the globe and Maldives is no exception. However, considering Maldives was already at high risk of debt distress before the pandemic, it is essential to strike a balance between infrastructure needs and restoring fiscal buffers. Better prioritization of spending – especially capital spending— can help Maldives reduce rollover risks and bring down debt to more manageable levels. Creating more fiscal space can further bolster its medium-term economic prospects and minimize the impact of future shocks.

In the longer term, digital technologies can be game changers for Maldives' growth and development. The COVID-19 pandemic has accelerated the digital transition that was already underway in Maldives. As in other countries, mobility restrictions have highlighted the importance of e-payment systems, telehealth, online education, and many other digital applications. However, the digital transformation is only just beginning: given relatively high broadband and mobile internet penetration in the country, there is tremendous potential for scaling up the use of digital technologies in various sectors. For instance, wider use of technologies can help the government improve delivery of health and education services across the hundreds of small, dispersed islands that make up Maldives, thus supporting social inclusion and decentralization. Greater adoption of technologies by businesses, especially small and medium-sized enterprises, can lead to efficiency gains that boost economic growth and create more jobs, especially for women. For example, increased use of digital technologies could help to optimize resource management and improve the productivity of the fisheries and tourism sectors. There is also potential to further develop the nascent ICT sector and digital entrepreneurship.

The special focus article of the April 2021 Maldives Development Update (“A Digital Dawn”) explores how Maldives can leverage digital technologies to build back better for green, resilient, and inclusive development in the post-COVID world. It identifies the main bottlenecks to greater digital adoption and provides preliminary recommendations on how the government can address them. For digital development to play a more prominent role in Maldives' economic recovery, the government could consider measures to:

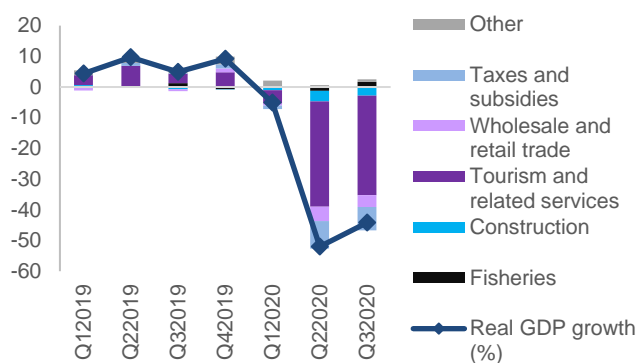
- (i) Address spatial disparities in access to affordable, secure and reliable high-speed connectivity;
- (ii) Increase coordination of digital government activities;
- (iii) Address legal and regulatory gaps to promote digitalization of businesses and to develop the ICT sector; and
- (iv) Develop capabilities and skills to nurture a digitally-savvy population.

Closing the digital divide between Male' and the atolls, and across income groups, is critical to ensure that all Maldivians can benefit from digital technologies. Only then will the country be able to reap the many benefits of the digital transformation.

Executive summary in pictures

The COVID-19 pandemic led to Maldives' deepest economic contraction in history...

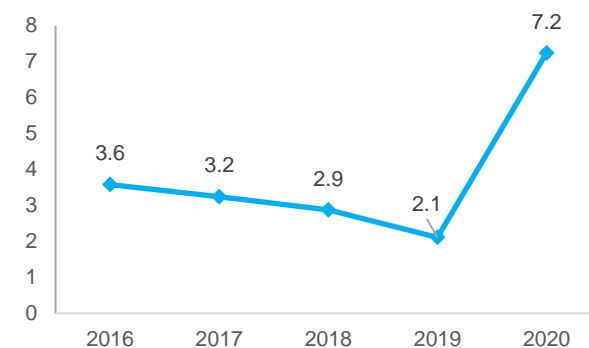
Contribution to growth, percentage points



Source: National Bureau of Statistics Maldives, staff calculations.

...and an increase in the estimated poverty rate, after years of steady decline.

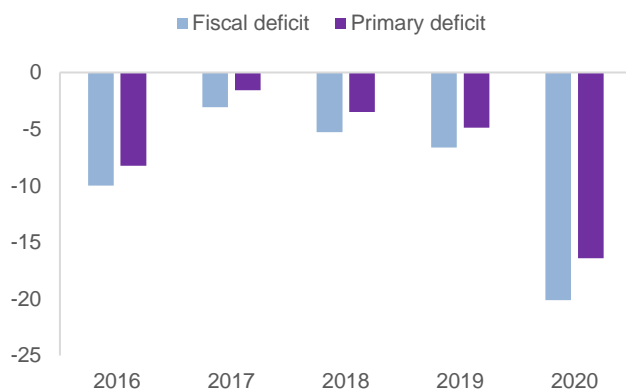
Share of the population, percent



Source: Staff estimates based on HIES (2016).

Continued momentum in expenditures amid an unprecedented revenue shock led to a large fiscal deficit...

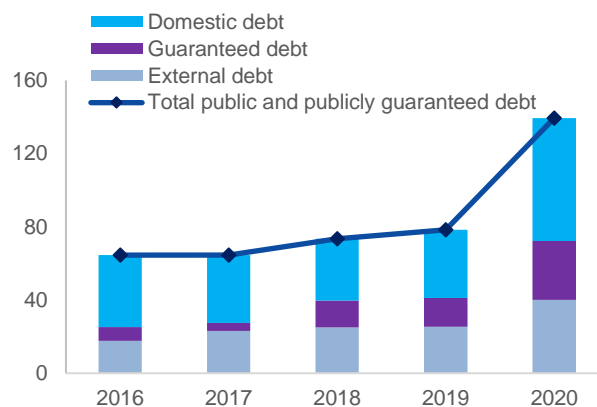
Percent of GDP



Source: Ministry of Finance, staff calculations and estimates.

...and exacerbated the risks from already high levels of public debt prior to the crisis.

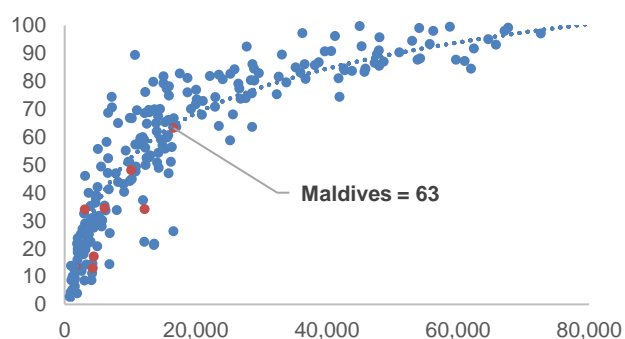
Percent of GDP



Source: Ministry of Finance, staff calculations and estimates.

Maldives can leverage its high Internet penetration for growth and development...

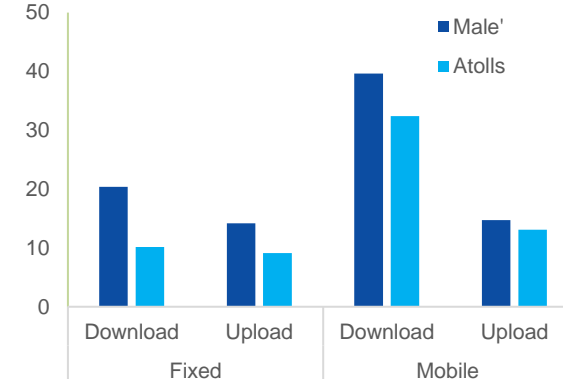
Y-axis: Share of the population who use the Internet, percent; X-axis: GNI per capita



Source: World Bank WDI and ITU (2019).

...but it must address the digital divide to ensure all Maldivians can benefit.

Internet speed, Mbit per second



Source: Based on the World Bank's analysis of Speedtest Intelligence® data from January 2020 to January 2021.

A1. *Economic Update*



1. Context

Maldives is heavily dependent on tourism...

Tourism has been key to Maldives' development success. The 'one island, one resort' model¹ has helped it to attract significant amounts of foreign direct investment and accumulate foreign exchange earnings from high-end tourism. Sustained and fast growth, driven by the dynamism of the tourism sector, has propelled Maldives into the ranks of upper-middle income countries and enabled it to narrow the gap with more advanced economies.

...which suffered an unprecedented negative shock in 2020.

The COVID-19 pandemic is the biggest shock to have ever hit the Maldivian economy. Tourism and related services² directly contribute to 40 percent of the economy, 80 percent of exports and half of total revenues. Despite the economic importance of the sector, the government took proactive steps to limit the spread of COVID-19, gradually restricting the entry of passengers from affected countries since February 4, 2020 and implementing a full border closure beginning March 27, 2020. This resulted in a sudden stop of tourist inflows and a shutdown of the sector.

Maldives was not spared from several waves of the COVID-19 pandemic...

The health effects of the pandemic were also significant. Despite implementing early containment measures such as mobility restrictions, school closures and reduced business, COVID-19 cases spiked in mid-April following the first confirmed case of community transmission (Figure A.1). Outbreaks particularly affected the foreign expatriate community, an integral part of the Maldivian economy. Overcrowding in Malé, one of the most densely populated cities in the world, exacerbated the spread of the virus, especially among foreign workers. As of March 31, 2021, Maldives had recorded a total of 24,079 confirmed COVID-19 cases (about 4 percent of the population) and 67 COVID-related deaths.

¹ Maldives consists of 1,192 islands spread across 26 atolls. Approximately 200 islands are inhabited; a further 100 or so are designated 'resort islands', each consisting of only one resort per island.

² This comprises tourism, transport and communication, real estate, and entertainment.

...but the health and economic impacts were partially mitigated by government support.

The government responded promptly to mitigate the impact of the pandemic on Maldivians with several health, economic and social measures³. To support households and firms, it (i) provided temporary discounts on utility bills, (ii) lowered retail fuel prices, (iii) imposed price controls on food staples, (iv) declared a moratorium on repayments for selected business and personal loans, (v) deferred housing rent and resort lease rent payments, and (vi) extended special financing facilities to affected businesses, including to small and medium-sized enterprises (SMEs). It also reallocated public expenditures to increase spending on health and emergency preparedness measures (see [Section 3](#)), and implemented monetary policy measures to boost liquidity to financial institutions (see [Section 4](#)).

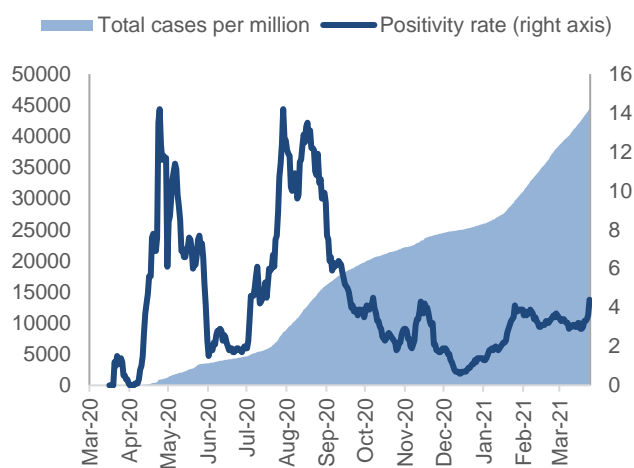
Optimism is growing as tourists have returned and vaccinations gain momentum

Maldives reopened its borders to tourists on July 15, 2020 and has seen a steady improvement in arrivals, especially since the holiday season in December. Nearly 300,000 tourists visited from December 2020 to February 2021 – 42 percent below the same period the year before, but better than the government's initial expectations (see [Section 1](#)). As of March 26, 2021, nearly all resorts have reopened⁴, and 29 international airlines have resumed flights to the country.

In addition, the rapid rollout of the COVID-19 vaccination program since February 1, 2021, is fueling optimism. As of March 31, 2021, 237,716 people – nearly half the population – have received at least one dose of a COVID-19 vaccine (Figure A.2). The government has extended the vaccination free of charge to all, including migrants regardless of their status, and aims to fully inoculate the entire population by August 2021. Maldives has secured over half a million doses of vaccines – enough to cover the entire adult population – mostly thanks to donations from the governments of China and India, as well as allocations from the COVAX Facility.⁵ Nonetheless, COVID-19 remains a threat, with the 7-day average of new cases rising rapidly since early January.

Figure A.1: The COVID-19 pandemic has had a devastating impact on the lives and livelihoods of Maldivians...

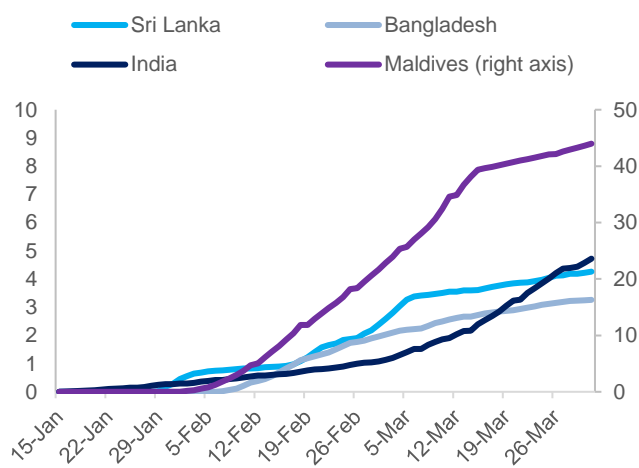
Cumulative cases per million / percent



Source: Our World in Data.

Figure A.2: ... but the rapid rollout of COVID-19 vaccinations has buoyed hopes of a faster recovery.

Cumulative COVID-19 vaccination doses per 100 people



Source: Our World in Data

Note: No data available for Afghanistan, Nepal and Pakistan.

³ See Box 2 on page 12 of [World Bank \(2020a\)](#) for more on Maldives' early response to the COVID-19 pandemic.

⁴ Resorts dominate the tourism sector. However, the guesthouse segment, which had been growing before the pandemic, has recovered more slowly: only 393 out of approximately 600 guesthouses have resumed operations as of March 26, 2021.

⁵ This consists of 200,000 doses of the COVISHIELD vaccine from the Government of India, a private donation of 5,000 doses of the Sinopharm vaccine, 200,000 doses of the Sinopharm vaccine from the Government of China, 108,000 additional doses of COVISHIELD (the AstraZeneca/Oxford vaccine produced by the Serum Institute of India) and 5,850 doses of the Pfizer vaccine through the COVAX Facility. On March 23, 2021, Maldives purchased a further 200,000 doses of COVISHIELD.

2. Real sector and inflation

COVID-19 brought the economy to a standstill in 2020

According to official quarterly estimates, real GDP fell by 32.5 percent in the first nine months of 2020, y-o-y⁶ (Figure A.4). Almost all sectors of the economy contracted except for agriculture and fisheries, and utilities, financial, public and social services. Tourism output plummeted 63 percent, driving almost three-quarters of the overall contraction in output. Only 555,494 tourists visited Maldives in 2020, 67 percent lower than the 1.7 million record of 2019 (Figure A.5).

Construction, the other major driver of growth, contracted by 32 percent y-o-y in the first nine months of 2020. Shortages of raw materials due to global supply chain disruptions were compounded by mobility restrictions in the Greater Malé region and the sharp rise in cases among migrant workers, many of whom work in the construction industry⁷. The slowdown likely continued into Q4 2020, as public capital spending fell 43 percent y-o-y in that quarter.

While no updated estimates of GDP by expenditure are available for 2020, the slump in tourism and construction likely resulted in substantial contractions in household consumption and gross fixed investment ().

Box 1: What do estimates of GDP by expenditure reveal?

In October 2020, the National Bureau of Statistics Maldives released GDP data by expenditure for the first time since 2014. While the data release was limited to annual estimates from 2014-2019, several observations can be made:

(i) **Domestic demand makes up about 85 percent of Maldives' GDP.** Gross fixed capital formation, especially in transport, has been the main driver of growth from 2016-2018 due to the expansion of the Public Sector Investment Program (Figure A.3). In 2019, however, the slowdown in construction activity led to a 2.7 percent contraction in gross fixed capital formation.

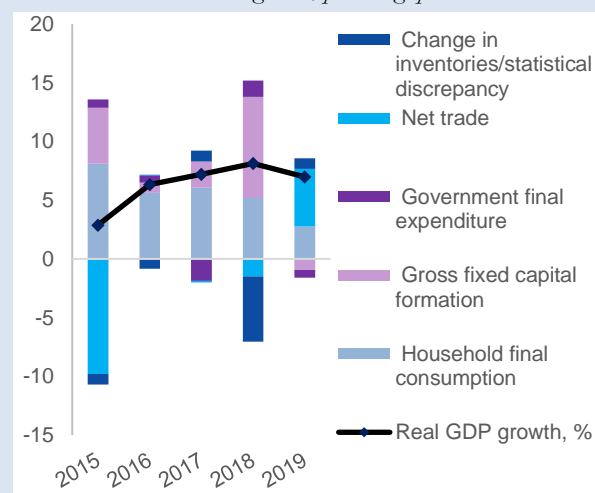
(ii) Despite robust tourism growth (and hence high services exports) in recent years, **net trade has exerted a drag on growth.** This is due to the high import content of many Public Sector Investment Program (PSIP) projects. In 2019, however, net trade was the main driver of GDP growth as construction-related imports slowed while tourism-related services exports rose.

(iii) **Government consumption makes a relatively small contribution to growth.** Although government expenditures excluding subsidies and interest payments – a proxy for government consumption – has increased by 6 percent annually on average in nominal terms over 2015-2019, real government consumption has contributed very little to GDP growth. This is not unusual for small states, where government consumption tends to have a limited impact on medium-term growth (Alichu et al., 2019).

Source: Authors using NBS data.

Figure A.3: The contribution of fixed investment to growth has increased in recent years

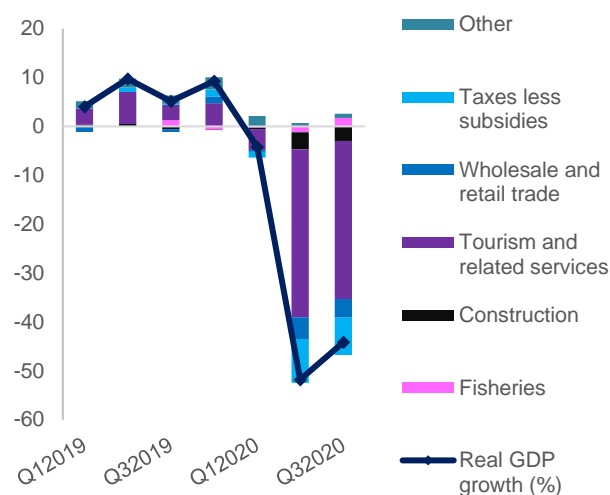
Contribution to real GDP growth, percentage points



Source: NBS, staff calculations

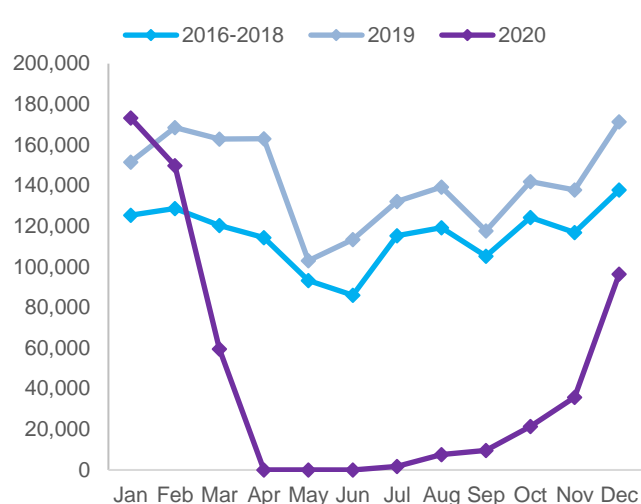
⁶ Published by the [National Bureau of Statistics Maldives](#) (2021). Advance estimates for Q4 2020 were published on March 31, 2021 (after the data cut-off for this report) and indicate a real GDP contraction of 32 percent in 2020.

⁷ The Maldives National Association for Construction Industry ([MNACI](#)) estimates that 40,000-50,000 foreigners and 5,000-7,000 locals work in the sector.

Figure A.4: Real GDP contracted sharply in 2020...*Contribution to growth, percentage points*

Source: National Bureau of Statistics Maldives (NBS), staff calculations.

Note: Tourism and related services comprises tourism, transport and communication, real estate, and entertainment.

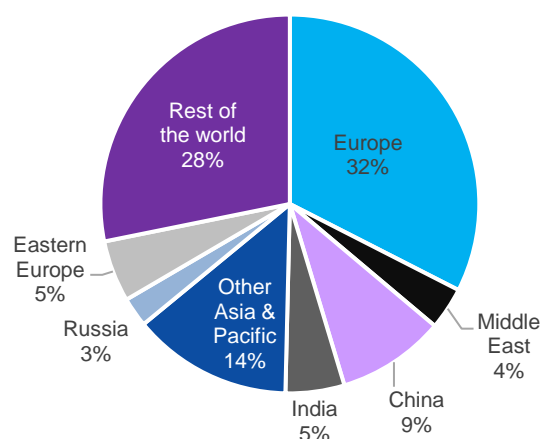
Figure A.5: ...as tourist arrivals plummeted to zero in Q2.*Total number of tourist arrivals*

Source: Ministry of Tourism, staff calculations.

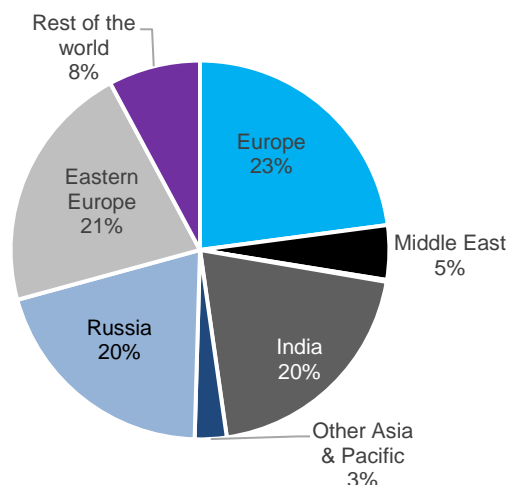
Note: 2016-2018 is an average.

Tourism is starting to show promising signs of recovery...

Since borders reopened in mid-July 2020, tourists have been returning gradually but steadily to Maldives. Tourist arrivals began to rise sharply towards the end of 2020, reaching nearly 100,000 visitors per month in January and February 2021⁸. While the average number of daily arrivals is still trending about 42 percent below 2019 levels, the recovery in tourism has outperformed expectations. Resilient demand from large markets such as India and Russia has compensated for the absence of tourists from China and Western Europe, which traditionally make up the majority of visitors to Maldives (Figure A.6). Since borders reopened, tourists from India, Russia and other Eastern European countries have accounted for 60 percent of all arrivals (Figure A.7). In January and February 2021, the number of tourists from Russia increased by 83 percent compared to the same period in 2020, while the number of tourists from India doubled. The latter was supported by the establishment of a Maldives-India air travel bubble in August 2020.

Figure A.6: The composition of tourists has shifted away from Asia and Western Europe...*Share of tourists from August 2019 to February 2020, percent of total*

Source: Ministry of Tourism, staff calculations.

Figure A.7: ...toward India, Russia and Eastern European countries.*Share of tourists from August 2020 to February 2021, percent of total*

Source: Ministry of Tourism, staff calculations.

⁸ Maldives recorded 110,217 tourists in March 2021 (data released after the cut-off date for this report).

...in part thanks to relatively simple requirements for tourist entry.

Several reasons explain the robust recovery in tourism thus far. Compared to similar destinations, Maldives imposes relatively straightforward requirements for tourist entry. Visitors are required to present proof of a negative COVID-19 test result⁹ upon entry into the country, but they are not required to quarantine. Adequate health, safety, and social distancing measures,¹⁰ as well as frequent and communication on the status of tourist establishments,¹¹ have also helped to boost traveler confidence. Maldives has also successfully implemented international marketing and public relations campaigns to attract tourists, including through social media. A key selling point, especially in the COVID-19 era, is the “one island, one resort” concept, which enables travelers to be transported directly from the main international airport to resort islands.

Fisheries, an important source of income for many, has also been affected

Preliminary quarterly estimates indicate that real output from fisheries grew 2.5 percent in the first nine months of 2020 y-o-y. The sector contracted by 19 percent y-o-y in the first half of the year as supply chain disruptions and international border closures led to difficulties in exporting shipments, as well as weaker demand from Europe during lockdowns. However, fishing activity rebounded by 48 percent y-o-y in Q3 2020 as lockdowns eased and the volume of exports of canned, pouched, and processed fish picked-up strongly (see [Section 5](#)). The strong performance of the fisheries sector likely continued into Q4 2020, with the volume of all fish exports surging 104 percent y-o-y in the last quarter.

With anemic economic activity, prices fell...

Prices fell by 1.4 percent y-o-y, on average, in 2020. The deflation was more pronounced in Malé (-1.6 percent) than in the atolls (-1 percent) but driven by the same two components (Figure A.8). First, the average consumer price index (CPI) for housing, water, electricity, gas and other fuels – which account for nearly a quarter of the total CPI basket of goods and services – declined by 4.7 percent (Figure A.9). This occurred as the State Trading Organization (STO) slashed retail fuel prices twice in March 2020,¹² as global oil prices also fell, and the government subsidized electricity and water bills in Q2 2020.¹³ Temporary relief on housing payments (through the loan moratorium and rent deferment¹⁴) also contributed to keeping prices subdued. Second, information and communications prices fell by 9.8 percent on average, as telecommunications providers gave discounts, in line with the President’s request (see [Part B](#)). Thanks to these components, overall prices continued to be subdued in early 2021, falling by 0.9 and 1.0 percent y-o-y respectively in January and February 2021.

...except for tobacco and certain food items.

Food price inflation has been a concern globally due to supply disruptions caused by the COVID-19 pandemic. In Maldives, prices of food items – which account for a fifth of the CPI basket – rose by 3.0 percent on average in 2020 (3.3 percent in Malé and 2.8 percent in the atolls). However, this was mainly due to higher tobacco prices, which rose 15.5 percent on average as import duties on cigarettes were raised from MVR 2 to MVR 3 per stick.¹⁵ As for staple foods, price increases were mitigated by STO price controls on eggs, onions, potatoes and

⁹ This requirement was only imposed beginning September 15, 2020.

¹⁰ Maldives received the World Travel and Tourism Council’s “[Safe Travels Stamp](#)” in mid-September 2020.

¹¹ The [Ministry of Tourism](#) also publishes daily, weekly and monthly reports on tourism.

¹² STO lowered the per liter prices of petrol and diesel from MVR 10.13 and MVR 10.89 to MVR 9.60 and MVR 10.39 respectively on 13 March 2020, and further to MVR 8.07 and MVR 8.71 on 22 March 2020. Source: [Malsa \(2020a\)](#) and [Aiham \(2020a\)](#).

¹³ The government reduced electricity and water bills by 40 and 30 percent respectively for April and May, and for electricity bills in June.

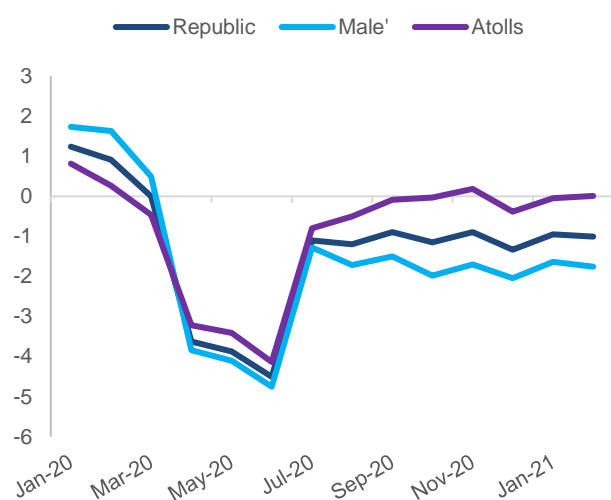
¹⁴ The Housing Finance Development Corporation issued a moratorium from March-August 2020 to 64 percent of its customers. The Housing Development Corporation allowed deferrals of up to 30 percent to residential and commercial customers from April to July 2020.

¹⁵ As stipulated by the [17th amendment](#) to the Import-Export Act that was ratified on 23 July 2020. Source: [MMA \(2020a\)](#) and unofficial translation of the amendment.

beans,¹⁶ introduced in April 2020. Despite these controls, there was a sharp increase in onion prices towards the end of the year, as heavy monsoon rain damaged crops in India.¹⁷

Figure A.8: Prices fell across the country in 2020...

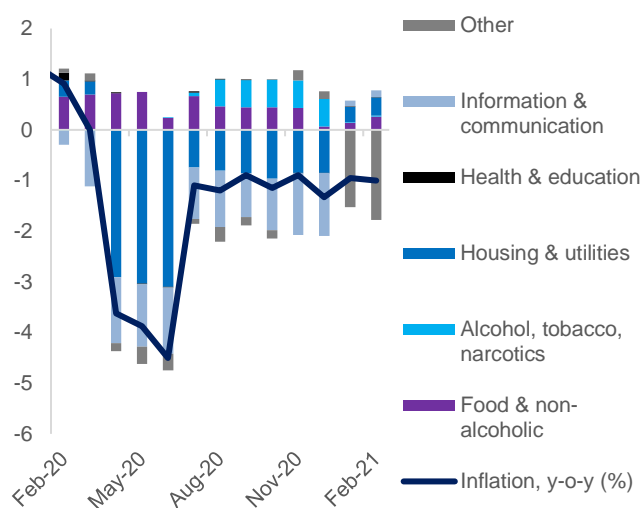
Year-on-year change in consumer price index (CPI), percent



Source: NBS, staff calculations.

Figure A.9: ...especially in housing, utilities and ICT.

Contributions to CPI growth, percentage points



Source: NBS, staff calculations.

3. Poverty

Before the pandemic, Maldives had made continuous progress in reducing poverty...

Official estimates based on the last available Household Income and Expenditure Survey (HIES)¹⁸ indicate that, in 2016, only 3.6 percent of the population lived below the international poverty line for upper middle-income countries (USD 5.50 per person per day in PPP). World Bank projections based on this data suggest that poverty continued to decline, to about 2.1 percent of the population in 2019. According to preliminary analysis of the HIES 2019, real household per capita income¹⁹ is estimated to have increased from an average of MVR 64,000 in 2016 to MVR 74,000 in 2019, primarily driven by gains in wage incomes (more wage earners and higher wages).

...but poverty is estimated to have increased due to the pandemic.

With most Maldivians dependent on tourism and fisheries for their livelihoods, the World Bank estimates that the poverty rate increased to 7.2 percent in 2020²⁰ (Figure A.10) due to the impact of the COVID-19 pandemic. This was primarily driven by losses in earnings: 37 percent of all respondents²¹ to a World Bank phone survey conducted between December 2020 and February 2021²² reported having experienced some form of labor market deterioration related to COVID-19 (mostly losses in earnings or wages). These findings are consistent with assessments of the impact of COVID-19 by the UNDP and Maldives National University (see).

Government assistance has helped Maldivians cope with these pressures

To support Maldivians whose incomes were affected by the COVID-19 pandemic, the government offered monthly payouts of up to MVR 5,000 (USD 324) under the Income Support Allowance scheme. Those who were unemployed, on no pay leave, or had their salary deducted or earnings affected by the pandemic were eligible to apply for the scheme through the Job Center web portal. The scheme was initially introduced from April to June, subsequently extended to

¹⁶ Source: [Malsa \(2020b\)](#).

¹⁷ Maldives was nonetheless spared from the brunt of the impact as it was exempt from India's ban on onion exports from September to December 2020. Source: [Sun Maldives \(2020\)](#).

¹⁸ The pandemic disrupted data collection for the 2019/20 HIES.

¹⁹ The average household size is 5.2 in 2019.

²⁰ The estimate does not take into account government policies to mitigate the impact of the crisis.

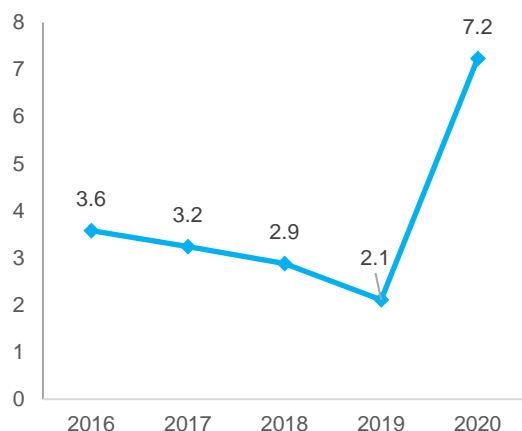
²¹ Working-age respondents who ever worked in 2020.

²² Based on 1356 interviews. Survey done through random digit dialing and representative of the mobile phone-owning population.

October, and then for a final time until the end of December 2020 (Figure A.11). As of 12 March 2021, the government had disbursed MVR 318.8 million (USD 20.7 million) in such allowances to nearly 20,000 Maldivians. Over a third of respondents to the World Bank phone survey indicated that these cash transfers were the most helpful form of assistance they had received.

Figure A.10: COVID-19 has led to a temporary increase in poverty ...

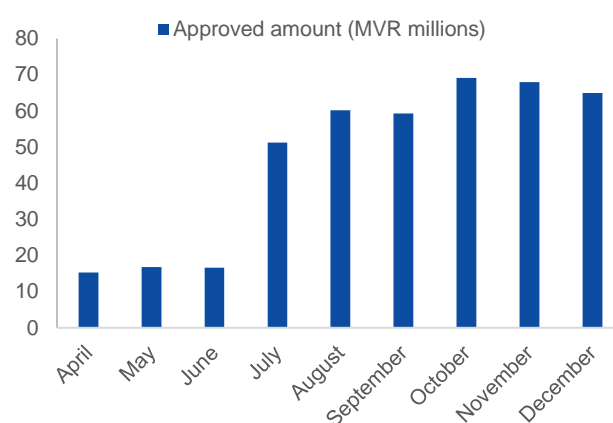
Estimated poverty rate, percent of population



Source: World Bank staff estimates based on NBS HIES (2016).

Figure A.11: ...but the Income Support Allowance helped to mitigate the impact.

Amount disbursed per month (in 2020), MVR millions



Source: Ministry of Economic Development.

Note: October-December figures refer to estimates.

Box 2: How has COVID-19 affected the wellbeing of those living in Maldives?

COVID-19 has had a profound impact on the lives and livelihoods of those living and working in Maldives.

During the height of the lockdown in May 2020, 65 percent of respondents to an online survey (Maldives National University, 2020) indicated that the pandemic had a ‘major’ or ‘moderate’ impact on their ability to meet financial obligations. Business owners were particularly affected: ninety percent of respondents in this group reported being extremely or very affected by the pandemic, or having lost all their income. For employees, job security was a major concern: five out of ten respondents reported having lost their jobs, being at risk of losing their jobs, or receiving reduced salaries. In the second round of the survey, conducted in June (while borders remained closed), about 56 percent of respondents reported a reduction in income (or no income at all) during the lockdown period.

The pandemic has disproportionately affected women’s health and incomes. About 68 percent of respondents to a survey by UN Women reported that their mental and emotional health had been affected, due to increased economic stress and gender-based violence. Women were also more likely to stay home to bear the burden of domestic care compared to men. Moreover, some 54 percent of women engaged in informal employment reported that their working hours had decreased, compared to 40 percent of men in the same category.

Source: Moosa et al. (2020a, 2020b) and UN (2020)

4. Monetary and financial sector

MMA has taken several steps to ensure sufficient supply of foreign exchange in the market, including by reducing minimum reserve requirements...

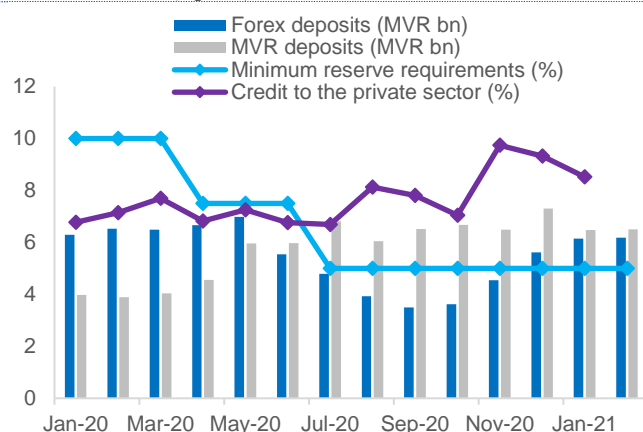
Late in April 2020, the Maldives Monetary Authority (MMA) reduced the minimum reserve requirement (MRR) from 10 percent to 7.5 percent of average local and foreign currency deposits, and further to 5 percent in July 2020.²³ It also activated USD 150 million from a previously signed USD 400 million swap agreement with the Reserve Bank of India (RBI). In September 2020, the MMA announced that it would only issue US dollars to banks for necessities, and temporarily halted the issuance of licenses for exchanging foreign currency.²⁴ Finally, it activated the remainder of the US\$400 million swap and lowered caps on the amount of cash that could be carried in and out of the country in December 2020. Nonetheless, the parallel market premium²⁵ rose to 25-30 percent in mid-April, following the closure of the tourism sector—the main source of foreign exchange earnings.²⁶ The gap between the parallel and the official rate has started to narrow since September 2020, reaching about 4 percent in early 2021 as tourist arrivals gained momentum.²⁷

...leading to a pick-up in loans to the private sector in the second half of 2020.

In part thanks to lower MMRs, banks reduced their foreign currency deposits with the MMA in the second half of 2020 (Figure A.12). Credit to the private sector grew 9.3 percent to MVR 26.3 billion as of end-2020, picking up from 7.5 percent in the previous year. Loans and advances to the private sector were mostly directed to the tourism and construction sectors, accounting for 60 percent of the total. Loan recipients were mostly big corporates, which typically account for 70 to 80 percent of available bank funds. The government's COVID-19 Recovery Loan Scheme, however, provided some MVR 335.7 million²⁸ in funds to small and medium enterprises which have faced difficulties in meeting their operational requirements due to the pandemic. Despite the increase in private sector lending, the interest rate spread remained high, translating into higher cost of funds for end borrowers. The average savings deposit rate and the average lending rate for the private sector remained unchanged at 1.5 percent and 11.6 percent respectively at the end of December 2020.

Figure A.12: Credit to the private sector picked up in the second half of 2020

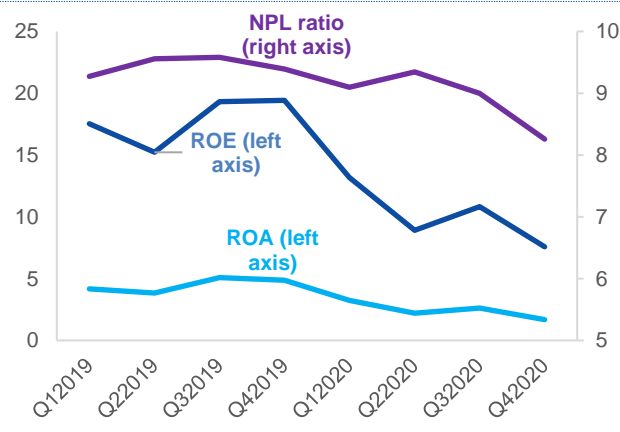
Percent/ MVR bn (deposits)



Source: MMA, World Bank staff calculations.

Figure A.13: Loan moratoria helped to reduce NPLs, but also affected banks' profitability

Percent



Source: MMA, World Bank staff calculations.

²³ MMA (2020b).

²⁴ Malsa (2020c).

²⁵ MMA maintains tight controls on the availability and use of foreign exchange, leading to the development of a parallel market where transactions take place at an exchange rate that deviates by more than 2 percent from the prevailing market exchange rate (see IMF 2020).

²⁶ Aiham (2020b).

²⁷ Corporate Maldives (2021) and The Edition (2021).

²⁸ See <https://finance.gov.mv/covid-19/businesses/covid19-recovery-loan-scheme/smc>

The loan moratorium helped to keep non-performing loans low, but adversely impacted banks' profitability...

Prior to the COVID-19 crisis, banks were well-capitalized and sufficiently liquid: the capital adequacy ratio (CAR) was at 46.8 percent at the end of Q1 2020, while the liquid asset ratio (LAR) was at 44.7 percent. Despite the crisis, banks remain well-capitalized, with the CAR and LAR increasing to 47.5 and 49 percent respectively at the end of 2020.²⁹ However, the loan moratoria extended by the Bank of Maldives from March to November 2020, as well as lower interest rates, have affected the profitability of the banking sector. The return on assets fell from 4.9 percent at the end of 2019 to 1.7 percent at the end of 2020, while returns on equity fell from 19.4 to 7.6 percent over the same period (Figure A.13). The main reason for reduced profitability was the increase in loan loss provisions, which amounted to MVR 1.3 billion in 2020 – nearly three times the amount in 2019.³⁰ According to the MMA, the increase in loan loss provisions was due to downgrades of a few large loans in the tourism sector.³¹ However, thanks to the moratoria, non-performing loans declined from 9.4 percent of total gross loans at the end of 2019 to 8.3 percent at the end of 2020.

...and as in many other countries, the banking sector's exposure to government securities has increased.

Claims on the central government grew 38.5 percent in 2020 to MVR 44.7 billion (USD 2.9 billion) as of end-December 2020. This increase mainly reflected short-term advances from the MMA and large issuances of Treasury Bills (T-bills) and Treasury Bonds (T-bonds). The temporary suspension of the Fiscal Responsibility Act enabled the government to partially finance the deficit using short-term advances from the MMA, which peaked at USD 262 million in July 2020³² and declined subsequently to USD 182 million as at end-February 2021.

Purchases of T-bonds by commercial banks also rose significantly from just USD 13 million in 2019 to USD 268 million in 2020, reflecting the sale of USD 250 million worth of T-bonds (USD 10 year fixed coupon bonds) to the State Bank of India (SBI) Malé in September 2020 as part of financial assistance from the Government of India. Purchases of T-bills and short-term Islamic instruments by commercial banks and other financial corporations also increased by USD 156 million y-o-y as of end-December 2020. These purchases contributed to an acceleration of broad money growth from 9.5 percent at end-2019 to 14 percent at end-2020.

5. External sector

The current account deficit is estimated to have narrowed...

The current account deficit is estimated to have narrowed slightly in 2020.³³ On one hand, the deficit in the goods and services account likely widened with the reduction in services exports outweighing the decline in merchandise imports. Travel receipts, which account for almost all services exports, fell by 1.8 billion in 2019 to USD 1.4 billion in 2020 (a 56 percent decline). Meanwhile, merchandise imports fell only by USD 1 billion or 36.3 percent. On the other hand, net outflows from the primary and secondary income accounts likely declined due to (i) lower investment income, resulting in lower dividends, and (ii) lower remittances outflows, as over 20,000 foreign workers were repatriated. Earnings by foreign workers also likely declined as tourism, construction and other services activities came to a standstill, especially in Q2 2020.

...even as goods imports fell due to subdued demand.

The goods trade deficit narrowed from US\$ 2.5 billion in 2019 to US\$ 1.5 billion in 2020 as imports fell by more than exports. Goods imports³⁴ fell by an estimated 36.3 percent y-o-y, in nominal terms, in 2020. The decline was broad-based, led by lower diesel and construction-related imports (Figure A.14). Diesel imports fell 41.4 percent as global crude oil prices fell and domestic demand plummeted. Construction-related imports, especially wood, metal, cement

²⁹ This is well above the minimum requirement of 12 percent.

³⁰ MMA (2020a).

³¹ Ibid.

³² In April 2020, the Parliament temporarily approved a one-year suspension of provisions in the Fiscal Responsibility Act to allow the government to borrow up to MVR 4.2 billion (USD 272 million) from the MMA's public accounts.

³³ Based on World Bank and MMA estimates as of 28 October 2020. Full year 2020 balance of payments data has yet to be released.

³⁴ Measured on a cost, insurance and freight basis (cif). Monthly import data is measured on a cif basis, whereas the balance of payments data uses imports measured on a free on board (fob) basis.

and other raw materials, fell by 38 percent as construction activity came to a halt. Food imports also contributed to this decline, in line with fewer tourists, mobility restrictions, and subdued activity in food and accommodation establishments.

Exports of goods also fell, but this was due to re-exports of jet fuel rather than fisheries

Goods exports³⁵ of goods contracted by 20.6 percent in 2020, y-o-y. The fall was mainly driven by lower re-exports of jet fuel (-43.4 percent y-o-y), which typically account for nearly half of all goods exports, as the number of arrival flights declined by 57 percent (Figure A.15). Reductions in re-exports of jet fuel outweighed the small uptick in fish exports, which grew by 3 percent y-o-y after two years of consecutive declines. Two factors explain the steady performance of Maldivian fish exports despite the pandemic. First, exports of frozen skipjack tuna picked up strongly both in terms of prices and volume towards the end of the year, as lockdowns eased globally. Second, demand for processed fish such as dried skipjack and fish chips rose significantly, leading to increases in both the price and volume of these exports, especially to Sri Lanka and Japan. These trends compensated for lower exports of fresh fish, which were affected by supply chain disruptions.

Figure A.14: Lower imports of food, fuel and construction-related items led total imports to fall

Contribution to growth, percentage points

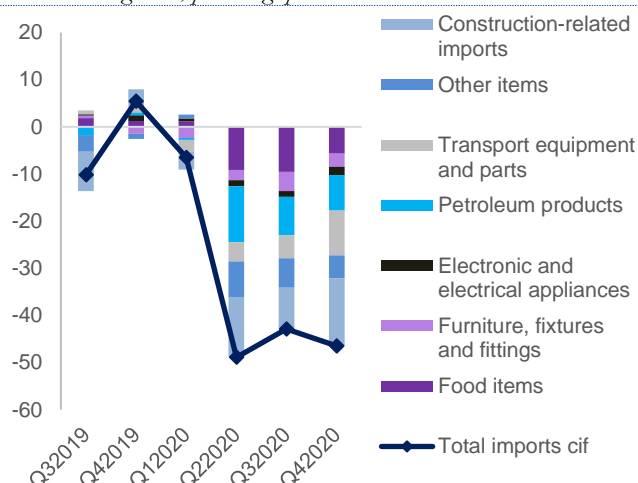
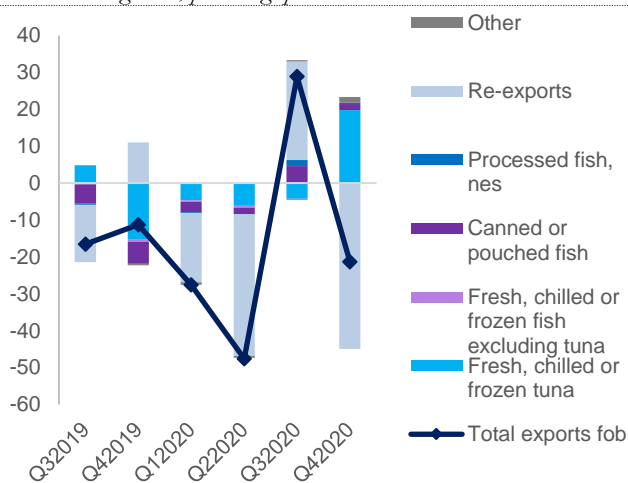


Figure A.15: Fisheries exports partly compensated for lower re-exports of jet fuel

Contribution to growth, percentage points



Source: MMA monthly statistics, staff calculations.

Note: Construction-related imports refer to wood, cement, metal & aggregates; machinery, mechanical appliances & parts; electrical, electronic machinery, equipment and parts.

The external position has been severely affected by the pandemic, mainly due to the slump in tourism earnings

In 2020, the current account deficit has been mostly financed by official financing and exceptional budget support. Bilateral governments and International Financial Institutions including the World Bank Group, the Asian Development Bank, the Japan International Cooperation Agency and the OPEC Fund for International Development provided over USD 500 million in loans and grants that helped to close the external financing gap. Of this amount, USD 250 million in budget support was received from the Government of India, channeled domestically through the subsidiary of SBI India in Malé (see [Section 4](#)). With the slump in tourism – the main source of foreign exchange earnings – official reserves fell from USD 776.7 million in January 2020 to USD 569.8 million at end-August 2020, the lowest level since October 2018. Reserves have since recovered to USD 844.7 million at end-March 2021, thanks in part to the recovery in tourism, but also as the MMA activated the remainder of its USD 400 million foreign currency swap arrangement with RBI. Usable reserves—netting out short-term liabilities—amounted to USD 177.8 million at end-March 2021, equivalent to 1.2 months of 2020 goods imports.

³⁵ Measured on fob basis.

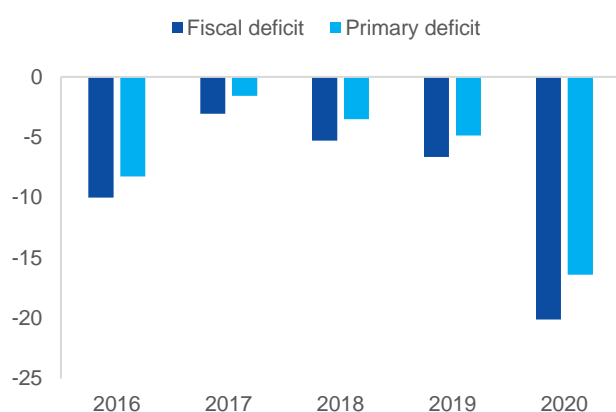
6. Fiscal sector

The fiscal deficit ballooned in 2020...

According to preliminary estimates from the Ministry of Finance, the fiscal deficit reached MVR 12.5 billion (USD 815 million) in 2020, or 20.1 percent of estimated GDP. In nominal terms, this is more than double the deficit recorded in 2019 (MVR 5.8 billion or USD 374 million), and triple the 2019 deficit as a share of GDP (6.6 percent) (Figure A. 16). As in most other countries in the world, the fiscal deficit widened largely due to the impact of the COVID-19 pandemic on revenues and the need to allocate more spending to health and social assistance. In Maldives' case, however, the policy choice to increase capital spending relative to 2019 amid an unprecedented fall in revenues also contributed to the large increase in the fiscal deficit (Figure A. 17). The primary deficit is also estimated to have widened from 4.5 percent of GDP in 2019 to 16.4 percent of estimated 2020 GDP.

Figure A. 16: The fiscal and primary deficits more than tripled in 2020...

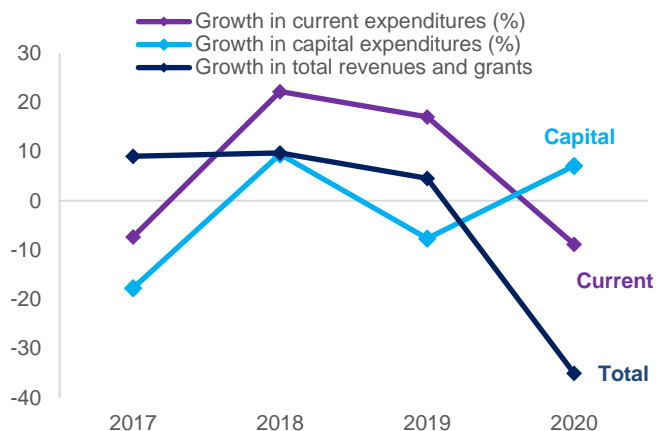
Percent of GDP



Source: Ministry of Finance, World Bank staff calculations.

Figure A. 17: ...as capital spending kept its momentum despite a big drop in revenues.

Year-on-year growth, percent



Source: Ministry of Finance, World Bank staff calculations/estimate.

...as the sudden stop in tourism inflows led revenues to plummet...

Total revenues and grants amounted to only MVR 15.1 billion (USD 981 million) in 2020, 35 percent lower than in the previous year and about half of what was targeted in the 2020 Budget. As tourism generates about half of all revenues,³⁶ much of the decline was on account of depressed tourist arrivals (Figure A.18). Tax revenues fell by 34 percent in 2020, with lower collections of tourism-related taxes such as the tourism goods and services (-12.1 percentage points, pp), import duties (-5.5 pp), the green tax (-2.3 pp), and the airport service charge (-2 pp) contributing the most to the decline in total revenues. The introduction of the Personal Income Tax only helped to collect an additional MVR 92 million in revenues, a quarter of the amount forecast in the 2020 Budget.

On the non-tax revenue side, collections linked to tourism such as rent from resorts (-4.3 pp) and airport development fees (-2pp), contributed the most to the decline in total revenues. Policy actions to mitigate the impact of COVID-19 also dampened some sources of tax and non-tax revenue. For instance, Parliament approved an amendment to the Import-Export Act in July 2020, which lowered duties on imports through regional ports in the North and South of the country by 50 percent. The measure, which was enacted to boost growth, came at the cost of lower import duty collections. The government also deferred payments of resort lease rent due from June 2020 to December 2020 for one year, and provided several concessions on fees and rent repayments.³⁷

³⁶ Including revenues from import duties, as the volume of imports is strongly linked to tourism activity.

³⁷ For more information, see Ministry of Finance Maldives (2021), page 39.

...and the government maintained a high level of spending.

According to preliminary official estimates,³⁸ total expenditures amounted to MVR 27.7 billion (USD 1.9 billion), 4.5 percent lower than in the previous year. The government cut expenditures on some components of current and capital spending³⁹ to accommodate the fall in revenues and reprioritized spending to address the emerging needs from the COVID-19 pandemic (). While total recurrent spending for the year fell by an estimated 8.8 percent compared to 2019, capital expenditures are estimated to have grown by approximately 7.1 percent over the same period. Capital spending picked up strongly especially in Q2 2020 and Q3 2020 (by 38.3 and 109.4 percent y-o-y respectively; see Figure A.19) as the government proceeded with land reclamation and land acquisition works. However, capital spending (particularly on PSIP projects) slowed in Q42020, resulting in an overall reduction in spending for the quarter.

Figure A.18: Revenues plummeted across the board...

Contribution to growth, percentage points

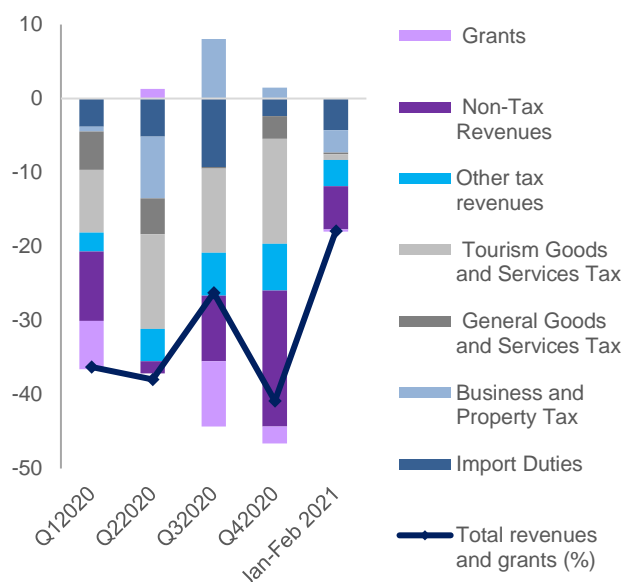
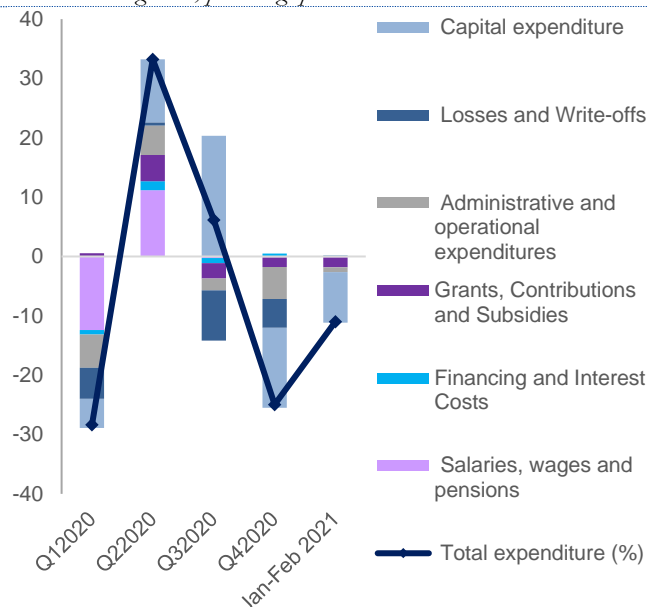


Figure A.19: ...but capital expenditure kept going.

Contribution to growth, percentage points



Source: Ministry of Finance monthly fiscal estimates, staff calculations.

The pace of public spending has slowed in early 2021

Public spending has maintained a moderate pace in early 2021. According to preliminary estimates, total public spending was 11 percent lower in January and February 2021 compared to the same period in 2020. This was mainly due to the slower pace of capital spending, which was 30 percent lower y-o-y. At the same time, the recovery in revenues picked up, with total revenues and grants in January and February 2021 at 18 percent below the same period in 2020. All revenue categories, however, continued to show negative y-o-y growth over the same period. This is consistent with the rebound patterns of tourist arrivals (since the months of January and February 2020 were broadly unaffected by the pandemic).

³⁸ As of 25 February 2021. The expenditure estimates are subject to further reconciliation.

³⁹ In March 2020, the government pledged to reduce non-priority recurrent and capital expenditures by MVR 1 billion. It temporarily reduced public salaries and wages and postponed PSIP projects that had not begun the tendering process at the end of Q1/2020.

Box 3: How much has the government spent on the COVID-19 pandemic?

The Government of Maldives has spent significant fiscal resources to deal with the impact of the COVID-19 pandemic. In 2020, the government reported spending⁴⁰ a total of MVR 2.9 billion (USD 187 million) on the COVID-19 policy response, or about 4.7 percent of estimated 2020 GDP. These expenses were roughly split between the government's Economic Relief Program (MVR 1.5 billion) and health or social protection measures (MVR 1.4 billion). About 60 percent of total expenditures were financed from the budget.

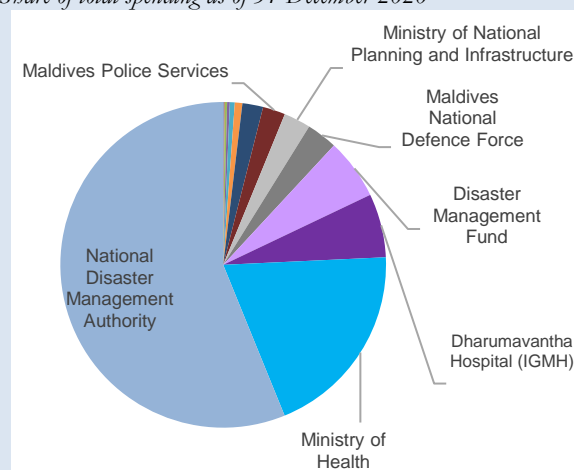
The bulk of economic relief spending was channeled through the COVID-19 Recovery Loan Scheme (MVR 1.2 billion or USD 75 million). The scheme provided financial assistance to both businesses and SMEs through state-owned financial institutions such as the Bank of Maldives and the SME Development Finance Corporation. In 2020, these entities disbursed USD 60 million to over 2,400 businesses. The remainder was mostly channeled to monthly allowances of MVR 5,000 (USD 324) to local freelancers and employees whose incomes were affected by the pandemic from May to December 2020. As at end-December 2020, the government had disbursed MVR 221.1 million (USD 14.4 million) in Income Support Allowance to over 17,000 individuals. The details of recipients and their status are also published on the [Job Center portal](#).

Spending on health and social protection measures, mostly went towards medical supplies (MVR 562 million or USD 36.5 million) and capital equipment (MVR 200 million or USD 13 million). This is in line with the government's stated emphasis on boosting testing capacity and increasing the bed capacity of public health facilities in the country.⁴¹ Most of these expenses were incurred by the National Disaster Management Authority and the Ministry of Health (Figure A.20).

Continuing to publish these weekly reports on COVID-19 related spending is an important step towards fiscal transparency and accountability. Since May 4, 2020, the Ministry of Finance began publishing weekly reports on COVID-19 related health, social protection and economic relief measures, disaggregated by Ministry and agency. Continuing to do so will help to improve the transparency and accountability of such expenses, and serve as a model for other countries to do the same.

Source: Authors using Ministry of Finance weekly COVID-19 spending reports.

Figure A.20: Most COVID-19 spending has been directed towards disaster management and health
Share of total spending as of 31 December 2020



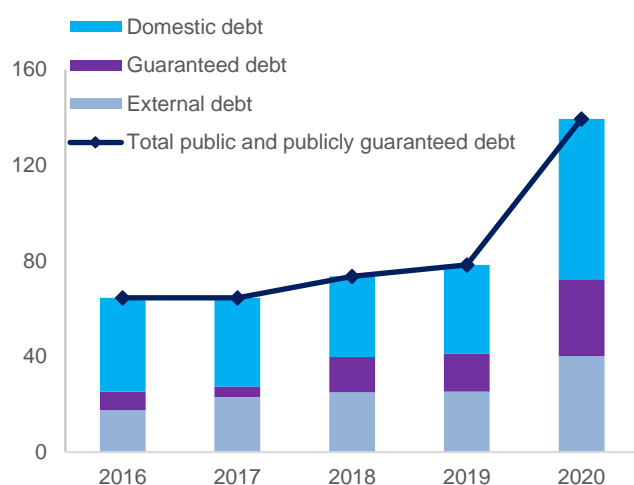
Source: Ministry of Finance.

Before the COVID-19 pandemic, Maldives was already at risk of overall and external debt distress.

Total public and publicly guaranteed debt (PPG) stood at USD 4.4 billion or 78.4 percent of GDP at the end of 2019. The increase in debt in recent years has been mostly driven by external guaranteed debt associated with the government's public infrastructure program (Figure A.21). In 2020, debt increased even further to USD 5.6 billion or 139.3 percent of estimated 2020 GDP. This large single year increase in the debt-to-GDP ratio can mostly be attributed to the severe economic contraction and the widening of the primary deficit (Figure A.22). Of the USD 1.2 billion increase in debt, about half was domestic borrowing, including USD 250 million in financial assistance from the Government of India which was channeled domestically. Guaranteed debt increased by USD 408 million, while direct external debt increased by USD 188 million. Approximately half of Maldives' external debt is due to China, followed by bond holders (13 percent) and India (9 percent).

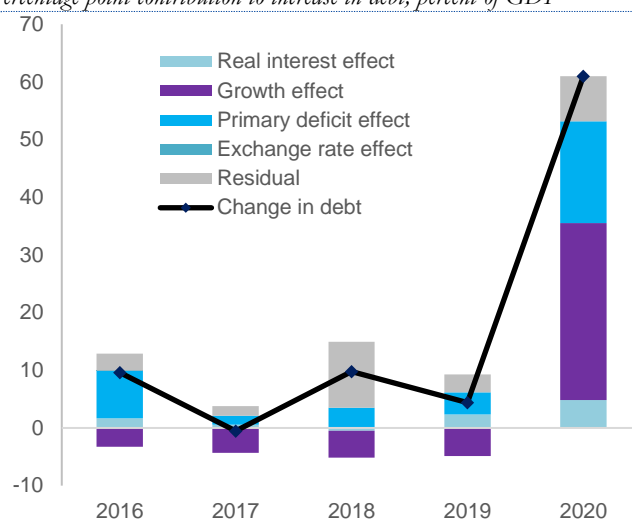
⁴⁰ Ministry of Finance (2020).

⁴¹ Ministry of Finance (2021).

Figure A.21: The debt-to-GDP ratio soared in 2020...*Total public and publicly guaranteed debt, percent of GDP*

Source: Ministry of Finance debt statistics, March 2021.

Note: 2020 denominator using World Bank estimates.

Figure A.22: ...mostly due to the contraction in GDP.*Percentage point contribution to increase in debt, percent of GDP*

Source: Ministry of Finance, staff calculations.

Note: 2020 denominator using World Bank estimates.

The government intends to ramp up capital spending in 2021, continuing on an expansionary expenditure path

The 2021 Budget envisions that total expenditures will reach MVR 33.4 billion (USD 2.2 billion) – an increase of 15.3 percent relative to 2019 and 9.2 percent relative to the revised 2020 Budget, respectively (Table A.1). Much of this expansion is due to the government's plans to ramp up infrastructure projects under the PSIP (). The budget projects a rather rapid recovery in total revenues and grants, with expected 2021 levels reaching MVR 21.1 billion (USD 1.2 billion) or just 4.3 percent below 2019 levels in nominal terms. This is mainly because non-tax revenues are projected to more than double from 2020 thanks to payments of deferred resort land rent and the introduction of new revenue measures. Tax revenues, on the other hand, are forecast to be similar to 2020 levels, with lower bank and business profit tax collections⁴² offsetting higher tourism-related tax revenues.

Thus, the budget envisages a fiscal deficit of USD 800 million or 18.5 percent of estimated GDP for 2021. To finance the deficit, the government expects to raise nearly USD 600 million in foreign financing, including through the issuance of a sukuk⁴³. The Fitch sovereign downgrade of Maldives' credit rating in November 2020⁴⁴ and uncertain market conditions may hamper its ability to obtain favorable terms on new borrowing.

⁴² Business profits were heavily impacted by COVID-19 in 2020, and hence will owe a lower amount of taxes in 2021. As for bank profit taxes, there was a one-time increase in 2020 since banks paid their first interim payment during the year. Source: [Ministry of Finance \(2021\)](#).

⁴³ According to news reports (see [Reuters](#) and [Times of Addu](#)), Maldives will finalize an issuance of USD 200 million on April 8, 2021.

⁴⁴ Fitch Ratings downgraded Maldives' Long-Term Foreign Currency Issuer Default Rating (IDR) to "CCC" from "B". This reflects Fitch's expectation of deeper and more prolonged external liquidity pressures than previously forecast, and a sharp increase in the country's debt burden as a result of the COVID-19 shock and continued debt-funded infrastructure spending. Source: [Fitch \(2020\)](#).

Box 4: The 2021 Budget targets a further expansion in the Public Sector Investment Program

The Public Sector Investment Program aims to improve access to basic services and infrastructure in Maldives, especially in the outer atolls. Spending on PSIP, which makes up the bulk of total capital expenditures, tripled from 3.5 percent of GDP in 2014 to 10.5 percent of GDP in 2016. Although PSIP spending subsequently declined as a share of GDP, a further expansion to 11 percent of GDP was planned in 2020. While this expansion did not materialize due to the COVID-19 pandemic, PSIP spending in 2020 exceeded 2019 levels by about 30 percent.

The Approved 2021 Budget proposes a further expansion in PSIP to MVR 8.4 billion (USD 548 million) in 2021. This is 52 percent higher than the revised 2020 estimate and 82 percent higher than what the government spent on PSIP in 2019. Further expansions of PSIP are anticipated in 2022 and 2023 with annual allocations of about MVR 13 billion (USD 842 million).

Most PSIP spending goes to the construction and development of airports, harbors, water and sanitation infrastructure, and public housing. Key projects over 2021-2023 are the expansion of Velana International Airport, the Gulhifalhu land reclamation and port development, the development of Addu City as a regional hub, and the Malé-Thilafushi Bridge (under the Greater Malé Connectivity Project). Various projects financed by the Export-Import Bank of India are also expected to commence (Table A.1).

Table A.1: Major PSIP projects over 2021-2023

Description	Status	Funding source	Amount (USD millions)
Velana International Airport terminal expansion	Ongoing	Saudi Fund	89.4
		Government of Abu Dhabi	60.8
		OFID	46.2
		Kuwait Fund	36.7
Velana International Airport runway	Ongoing	Export Import Bank of China	48.4
Malé-Thilafushi Bridge	Pre-tendering	Export Import Bank of India	87.7
Gulhifalhu land reclamation	Ongoing	Export Import Bank of India	75.4
Gulhifalhu port development	Ongoing	ING Bank	55.6
Water and sewerage on 34 islands	Tendering	Export Import Bank of India	58.8
Land reclamation in Addu City	Tendering		56.4
Developing roads in Addu City	Tendering		35.3
Hospitals in Gan	New		33.9
Upgrading regional airports	New		22.2
Various sports projects	New		37.2
Other water and sanitation projects	Various	IsDB, OFID, Abu Dhabi	104.5
Energy projects	Various	Various	99
Other projects	Various	Various	61.5
Total financed by external loans			1009.3

Source: Ministry of Finance, [Budget 2021](#)

While these public investments can be transformational, they also add to the existing debt vulnerabilities. The government expects that nearly half of the PSIP spending in 2021 will be financed by external loans (USD 253 million), with the remainder from the domestic budget (USD 219 million), grants (USD 36 million) and trust funds (USD 39 million). As in previous years, most of the new projects to be financed by external loans in 2021 are from non-concessional sources. Greater sequencing and prioritization of these investments can help Maldives meet its infrastructure needs without jeopardizing macroeconomic stability. Balancing development needs with fiscal and debt sustainability is critical given the high levels of public debt.

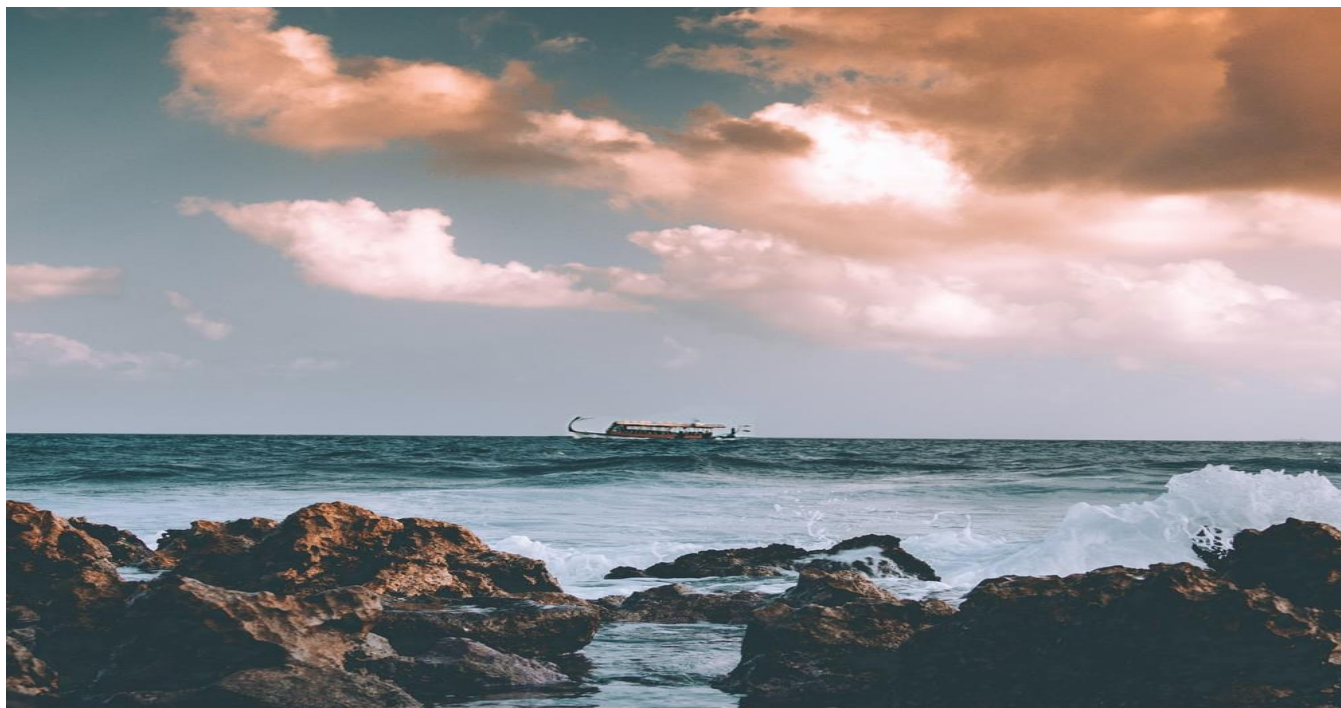
Source: Authors using data from Ministry of Finance (2021).

Table A.2: The 2021 Budget projects a near-normalization of revenues and higher capital spending

	2019 Actual	2020 Approved Budget	2020 Revised Budget	2020 Actual	2021 Approved Budget	2020 Actual vs 2020 Budget (%)	2021 Budget vs 2019 Actual (%)
Total revenues and grants	23,232	30,437	14,693	15,102	21,129	-50	-9
Total revenues	22,076	25,222	12,569	14,098	18,917	-44	-14
Tax revenues	16,530	17,852	10,138	10,886	10,895	-39	-34
Import duty	3,412	3,581	2,243	2,191	2,985	-39	-13
Business & property taxes	3,544	3,679	3,366	3,564	2,001	-3	-44
Individual income tax	-	348	70	92	95	-74	0
Tourism GST	4,903	5,054	1,958	2,220	2,640	-56	-46
General GST	2,845	2,901	1,874	2,086	2,036	-28	-28
Royalties	90	144	25	26	81	-82	-10
Airport service charge	731	877	268	283	531	-68	-27
Green tax	851	970	321	352	617	-64	-28
Other taxes and duties	154	258	13	72	4	-72	-98
Non-tax revenues	5,525	7,342	2,420	3,385	8,019	-54	45
Airport Devt. Fees	734	877	270	286	529	-67	-28
Rent from resorts	1,654	1,727	443	700	1,898	-59	15
Capital revenues	21	27	11	11	15	-58	-28
Grants	1,156	5,215	2,124	1,004	2,212	-81	91
Total expenditure	28,995	34,392	30,628	27,651	33,432	-20	15
Recurrent expenditures	21,372	22,338	20,877	19,490	21,638	-13	1
Personal Emoluments	8,294	8,716	8,139	8,280	8,416	-5	1
Pensions & Gratuities	1,541	1,562	1,556	1,565	1,593	0	3
Goods & Services	4,746	5,477	5,043	4,104	5,156	-25	9
Financing & interest costs	1,541	1,844	1,708	1,590	2,468	-14	60
Grants, Contr., Subsidies	3,760	4,636	4,338	3,765	3,904	-19	4
Losses	1,490	103	94	186	100	81	-93
Capital expenditures	7,623	12,054	9,751	8,161	11,793	-32	55
Overall balance	(5,763)	(3,955)	(15,935)	(12,549)	(12,303)	217	113
Primary balance	(4,222)	(2,111)	(14,227)	(10,959)	(9,835)	419	133

Source: Ministry of Finance.

A2. Outlook and Risks



7. Medium-term outlook

The outlook for tourism in Maldives – and hence economic growth – is solid over the medium term

Maldives' strong reputation among high-income and high-profile travelers have helped it chart a steady recovery. International media coverage of its reopening to tourism and successful marketing campaigns have also boosted Maldives' global image, attracting travelers from new markets such as in Eastern Europe and Central Asia. The rapid, ongoing rollout of COVID-19 vaccines domestically will further increase travelers' confidence in Maldives as a safe destination. Demand for travel to Maldives is therefore likely to remain high over the medium-term. Tourism infrastructure is also expected to expand, as 15 new resorts are expected to open in 2021.⁴⁵ The expansion of Velana International Airport terminal and runway and the development of several regional airports across the country are also ongoing.⁴⁶

...but the pace of the recovery depends on many factors beyond Maldives' control.

In the near term, the pace of Maldives' recovery from the COVID-19 crisis also depends on the uncertain recovery of global tourism and aviation. After suffering historic losses in 2020,⁴⁷ neither the global tourism nor the global aviation industry is forecast to recover to pre-pandemic levels until 2023 or beyond. Many countries have not signaled when they will loosen restrictions on international travel, and airlines are still expected to offer only half their seat capacity this year.⁴⁸ On one hand, a normalization of global tourism and aviation would mean that more airlines can resume full-service frequency to Malé and more passengers can travel to Maldives. On the other hand, however, competition is likely to pick up significantly as other countries open up to tourists. For example, pent-up demand to travel to Thailand and Indonesia, which

⁴⁵ [PSM News \(2021\)](#).

⁴⁶ The 2021 Budget includes allocations for 6 regional airports: Ha. Hoarafushi, HDh. Kulhudhuffushi, Sh. Funadhoo, N. Maafaru, GDh. Maavarulu and GDh. Faresmathoda. The government aims to provide access to an airport via speedboat in under 30 minutes to at least 90 percent of the population by 2023. See [Ministry of Finance \(2021\)](#).

⁴⁷ The COVID-19 pandemic is estimated to have caused historic losses of USD 1.3 trillion in tourism exports (UNWTO, 2020) and USD 371 billion in airline revenues ([ICAO, 2021](#)).

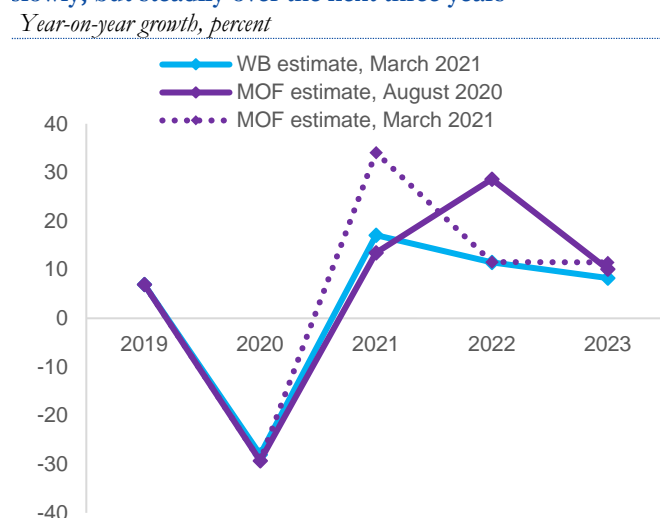
⁴⁸ Ibid.

offer a broader variety of leisure options and a wider range of prices, could lead some tourists away from Maldives. Moreover, given the devastating economic impact of the pandemic globally, the potential ‘pool’ of travelers may be diminished, especially from the middle-class segment.

Real GDP growth is projected at 17.1 percent in 2021 and 11.5 percent in 2022

Reflecting these considerations, current World Bank projections assume that Maldives only reaches pre-pandemic levels of tourism and hence output in 2023. Maldives’ economy is expected to grow 17.1 percent in 2021 and 11.5 percent in 2022 (Figure A.23 and Table A.3). The 2021 projection reflects base effects from the severe economic contraction in 2020. With borders expected to remain open to tourists, Maldives is on track to receive an estimated one million tourists in 2021, about 60 percent of the 2019 record of 1.7 million tourists. This is a much more conservative estimate than the government’s current target of 1.5 million tourists. The World Bank’s projection assumes that the majority of countries will continue to impose international mobility restrictions or more stringent requirements for entry (e.g. requirement of a negative COVID-19 test and mandatory quarantines upon return) until the end of 2021, thus dampening a more vigorous restart to travel this year. Should global travel restrictions be lifted faster than expected, especially from major markets such as China, Italy and the United Kingdom, tourism – and hence real GDP growth – may pick up more strongly in 2021.

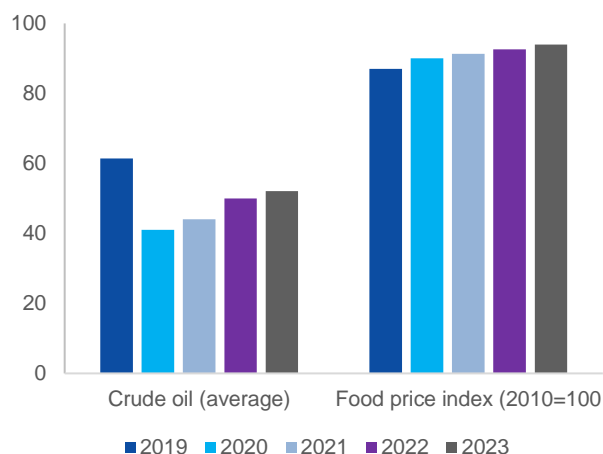
Figure A.23: The Maldivian economy is projected to recover slowly, but steadily over the next three years



Source: Ministry of Finance and World Bank estimates.

Figure A.24: Inflation is expected to pick up as global crude oil and food prices increase.

USD per barrel (oil); price index in nominal USD (2010=100)



Source: World Bank (2020).

Inflation is expected to pick up

Inflation is forecast to pick up to 2.5 percent in 2021, reflecting base effects and a normalization of prices. As average global crude oil prices are forecast to rise from USD 41 per barrel in 2020 to USD 52.1 in 2023 (Figure A.24), retail fuel prices are expected to increase correspondingly. STO has already hiked prices of petrol and diesel twice this year, in February and in March. While the pass-through from global oil price movements to consumer fuel prices in Maldives is only partial due to government subsidies, these price movements are expected to lead to a slight increase in inflation from 2021-2023. In addition, global food prices are expected to rise (Figure A.24). As Maldives relies heavily on food imports, these movements would also place upward pressure on inflation. However, the current projections assume that price controls on purchases of staple foods and food subsidies will remain in place, minimizing the pass-through to consumer prices.

The current account deficit is expected to widen

Despite the recovery in tourism receipts, external imbalances are expected to remain large. The overall trade deficit is expected to widen in 2021-2023 as renewed construction activity both from the private sector (i.e. resort development) and the government's ambitious infrastructure program (airport expansion, port development, social housing, regional development, and interconnecting bridges) leads to a pick-up in capital goods imports. Moreover, the fuel import bill is expected to increase as global crude oil prices are forecast to rise. Remittance outflows are also expected to approach 2019 levels over the medium term as demand from tourism and construction picks up and require more foreign labor. Although the government has put in place programs to hire more locals in the tourism industry, especially in management positions, these are not expected to result in a significant shift away from foreign labor in the short term. Large current account deficits are expected to continue in the medium term and gradually subside with the completion of some mega infrastructure projects.

The fiscal deficit is expected to moderate, but remain in double digits as a share of GDP

As mentioned earlier (see [Section 6](#)), the 2021 Budget forecasts a substantial increase in revenues relative to 2020 as tourism numbers pick up and new revenue measures are introduced. The proposed measures, which have yet to be passed by Parliament, include changes to the airport development fees and airport service charge, allowing non-residents to purchase 30 percent of reclaimed land in various regions, and introducing congestion charges in Malé. Since the 2021 Budget targets an increase in expenditures that far outweighs the recovery in revenues, the government estimates a fiscal deficit of MVR 12.3 billion (USD 798 million), similar to the realized fiscal deficit in 2020. As revenues pick up, the deficit is expected to decline over the next few years, but remain sizeable in levels and shares of GDP. The World Bank estimates a fiscal deficit of 18.5 percent of GDP in 2021, gradually falling to 12.7 percent of GDP in 2023.

The debt ratio is expected to decline as growth recovers, but continue to exceed Maldives' GDP

After reaching a high of 139.3 percent of GDP in 2020, the debt ratio is expected to moderate gradually to 131.4 percent of GDP in 2023, as growth and revenues recover (Table A.3). However, the government is expected to continue to rely on foreign loans to finance its deficit, often on non-concessional or semi-concessional terms. To finance the fiscal deficit, the 2021 Budget envisages increases in both domestic and external debt, including a sukuk/bond issuance, multilateral and bilateral support, and the issuance of Treasury Bills. Guaranteed debt is also forecast to increase as many housing projects executed by state-owned enterprises are in the pipeline. Rollover risks are partly mitigated by Sovereign Development Fund, which is replenished every month with proceeds linked to tourism.

Table A.3: Despite the projected growth recovery, fiscal and external imbalances are expected to remain in the double digits until 2023

	2019	2020e	2021f	2022f	2023f
Real GDP Growth, at constant market prices	7.0	-28.0	17.1	11.5	8.3
Inflation (Consumer Price Index)	0.2	-1.4	2.5	1.1	1.0
Current Account Balance (% of GDP)	-26.8	-26.3	-27.1	-27.5	-27.7
Fiscal Balance (% of GDP)	-6.6	-20.1	-18.5	-15.2	-12.7
Debt (% of GDP)	78.4	139.3	135.2	132.1	131.4

Source: World Bank estimates as of March 18, 2021.

8. Risks and priorities

The end of the COVID-19 pandemic is in sight as vaccines are being rolled out in Maldives and abroad...

The global economic outlook – and hence that of Maldives – continues to be clouded by high uncertainty stemming from several factors associated with the COVID-19 pandemic. On one hand, as the rollout of vaccines gains momentum, the end of the pandemic and hence a normalization of economic conditions is in sight. Maldives has been charting steady progress on its vaccination campaign, with almost half of the population having received at least one dose at the time of writing. Such progress, along with a continued commitment to high safety and health protocols in tourist establishments, will boost travelers' confidence to visit Maldives. Should global travel normalize at a faster pace than expected, Maldives' economic outlook can be expected to improve.

...but many factors remain unknown, preventing a faster normalization of global travel and tourism.

On the other hand, demand for tourism depends on many factors, some of which are out of Maldives' control. Progress on vaccinations has been slower than expected in many economies due to production and logistical challenges, which compounds the speed of the economic recovery. Moreover, the emergence of multiple new COVID-19 variants – several of which may be more transmissible and more deadly – have also led countries to maintain a high level of caution. The hitherto unknown effectiveness of vaccines in combating some of these new variants and the uncertain duration of immunity afforded by the vaccine have thus far prevented a more significant normalization of air travel. The full realization of any of these risks would result in a longer than expected period of lockdowns, which further dampens the outlook for Maldives.

External financing risks are high

Like many other countries, the COVID-19 pandemic has exacerbated the fiscal and debt situation of Maldives. Even before the COVID-19 crisis hit, however, Maldives' fiscal deficit and debt-to-GDP were high relative to other upper middle-income countries and small island states. While it is encouraging that tourism and hence its growth prospects are improving, Maldives is not yet out of the woods. Attracting sufficient levels of foreign exchange inflows to finance its ambitious public infrastructure program while meeting its obligations is a major balancing act. The extension of the Abu Dhabi bond that was due in 2023 to 2026 and the recent issuance of the sukuk⁴⁹ have partly helped to mitigate rollover risks, but new borrowing has created new pressures on the country's debt sustainability. The low level of reserves and high indebtedness poses risks to macroeconomic stability.

Restoring fiscal and debt sustainability is critical to building back better

Currently, Maldives has some buffers to prevent fiscal and debt crises. The ongoing recovery in tourism should help replenish the Sovereign Development Fund. In addition, Maldives is participating in the G20 Debt Service Suspension Initiative, which postpones payments due from May to December 2020 (and subsequently from January to June 2021) for a period of four years. However, the suspension amounts are limited and temporary. Until tourism – and the rest of the economy – fully recovers, more moderate levels of public spending and slower accumulation of new debt can help Maldives to manage unforeseen risks, such as a sudden stop in external financing. Better sequencing and prioritization of mega investment projects would help Maldives conserve more fiscal space to cope with future economic shocks such as the one caused by COVID-19.

⁴⁹ On March 29, 2021, Maldives issued a USD 200 million five-year sukuk with a profit rate of 10.5 percent. The proceeds were used to partially retire the USD 250 million Eurobond originally due in 2022, effectively extending the maturity to 2026.

B. A Digital Dawn



The COVID-19 pandemic has accelerated the digital transition that was already underway in Maldives. As in other countries, mobility restrictions have highlighted the importance of e-payment systems, telehealth, online education and many other digital applications. However, the digital transformation is only just beginning: given relatively high broadband and mobile internet penetration in the country, there is tremendous potential for scaling up the use of digital technologies in various sectors. For instance, wider use of technologies can help the government improve delivery of health and education services across the hundreds of small, dispersed islands that make up Maldives, thus supporting social inclusion and decentralization. This special focus article explores how Maldives can leverage digital technologies to build back better for green, resilient, and inclusive development in the post-COVID world. It identifies the main bottlenecks to greater digital adoption and provides preliminary recommendations on how the government can address them. For digital development to play a more prominent role in Maldives' economic recovery, the government could consider measures to: (i) address spatial disparities in access to affordable, secure and reliable high-speed connectivity; (ii) increase coordination of digital government activities; (iii) address legal and regulatory gaps to promote digitalization of businesses and to develop the ICT sector; and (iv) develop capabilities and skills to nurture a digitally-savvy population.

1. Digital technologies can be gamechangers for Maldives' growth and development

Maldives' remoteness is both a boon and a bane for development...

Maldives' unique geography has helped it carve out a niche in the luxury tourism industry. With more than a thousand islands scattered across 26 atolls, the country offers tourists an exclusive 'one island, one resort' proposition. These geographic features, however, also pose important challenges for service delivery and economic development, particularly in the atolls. With over a third of its population residing in the capital, Malé, and the remainder scattered across 200 small islands, ensuring universal access to basic services is difficult and costly. Internal migration has contributed to overcrowded housing in Malé. The limited land mass and small domestic market also make it difficult for Maldives to diversify away from tourism and fisheries in the near term.

...but digital technology can help overcome these constraints.

Unlocking the potential of digital technologies can help Maldives overcome the boundaries of geography. First, technology can help the government to improve access to public services, especially in more remote, poorer atolls.⁵⁰ Digital technologies can facilitate more equitable access to services such as health and education and broaden economic opportunities, including for women. Second, by reducing search and information costs, technology can help businesses become more productive and innovative. Small businesses can expand their markets, access cheaper and better inputs, and increase their profits. Third, technology can also help to create new jobs for Maldivians, either through employment in the ICT sector or through entrepreneurship. To realize these benefits, “analog complements” to digital investments are needed: for example, (i) education and training systems that develop workers’ skills to access and leverage new opportunities, (ii) business regulations that ease market entry and promote competition, and (iii) institutions that use technology for the public good.⁵¹

The COVID-19 pandemic has highlighted the importance of the digital agenda...

Prior to the pandemic, the Strategic Action Plan (SAP) 2019-2023 had outlined an ambitious agenda for digital development (Table B.1). The updated SAP also recognizes ICT as a key enabler to decentralize government,⁵² achieve economic diversification and build resilience against future disasters. At the onset of the COVID-19 pandemic, some important digital initiatives by government and businesses had already begun to materialize. In April 2020, the Ministry of Education partnered with television stations and Internet service providers (ISPs) to deliver remote learning to students. The Health Protection Agency launched a contact tracing app (TraceEkee) and provided daily updates to the public on COVID-19 cases through the Viber platform. The Parliament of Maldives also moved quickly to convene online.⁵³ With the lockdown, many businesses began to use online payment systems and ramped up their marketing efforts through social media.⁵⁴

Table B.1: The Government of Maldives has outlined five policy priorities for Maldives’ digital transformation

1.	Modernize the governance mechanism of the ICT sector to prepare Maldives for a digital economy
2.	Establish digital infrastructure, platforms and ecosystems that are capable of providing ICT solutions that are more efficient, secure and consistent
3.	Modernize government services through digitalization for data-driven policy making and efficient delivery of information and services
4.	Encourage digital innovation and create a conducive environment for businesses to thrive in a digital economy
5.	Develop a digital-ready workforce and build human capacity in the ICT industry

Source: [Government of Maldives \(2019\)](#).

...but there is still significant scope to enable all Maldivians to fully leverage the digital dividend.

Still, the pandemic revealed that much remains to be done to close the digital divide in Maldives. While over 60 percent of Maldivians have access to the Internet, adoption is uneven across the country. Those residing in Malé are more likely to own a laptop or a computer and use the Internet, compared to those residing in atolls. While there are many factors that influence the uptake of digital technologies, the high cost of fixed broadband services, the relatively slow speed of Internet connections in some areas and the lack of digital literacy are some potential challenges in Maldives.

⁵⁰ Based on data from the 2016 Household Income and Expenditure Survey (HIES), the poverty rate is estimated at 12.8 percent in atolls and 1.7 percent in Malé. The national poverty line is MVR 74 per person per day. See [World Bank \(2018\)](#).

⁵¹ [World Bank \(2016\)](#).

⁵² The National Spatial Plan (2020-2040) envisions the creation of five, well-connected regional urban centers.

⁵³ [Inter-Parliamentary Union \(2020\)](#).

⁵⁴ [UNDP and Ministry of Economic Development \(2020\)](#).

Accelerating Maldives' digital transformation will not just require investments in infrastructure and services, but also in human capital.

This article examines how Maldives can leverage digital technologies to achieve a more inclusive and resilient recovery from the COVID-19 pandemic. It highlights the current state of digital connectivity and infrastructure, identifying areas where improvements can be made. It then elaborates on the potential of digital development to transform service delivery in health, education and disaster risk management. Finally, it offers broad policy suggestions to accelerate Maldives' transformation into a digital economy in an inclusive and resilient manner. While infrastructure investments and development of digital services are important, ensuring that all Maldivians have the requisite digital skills and capabilities to use technologies for productive purposes is even more critical. Only then will Maldives be able to effectively harness digital technologies to boost growth, improve services and create jobs.

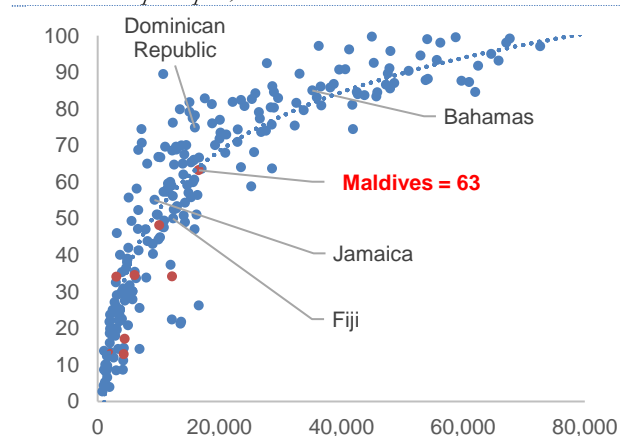
2. Connectivity has improved, but adoption of Internet is uneven across the archipelago

Internet access and use has expanded dramatically over the past decade...

Maldives is ahead of other countries in South Asia when it comes to digital connectivity. In 2019, 63 percent of the population or 60 percent of households used the Internet,⁵⁵ far ahead of other South Asian countries and slightly higher than predicted for its level of income (Figure B.1). This is a remarkable improvement from 2006 when only a tenth of the population used the Internet. Maldives is also ahead when it comes to mobile phone usage, with unique mobile subscribers making up 57 percent of the population⁵⁶ (Figure B.2). On both scores, Maldives is also far ahead of other upper-middle income small island developing states (SIDS) such as Fiji and Jamaica. Investments in technology have made a difference: since Maldives established submarine cable links with Sri Lanka and India in 2007, it subsequently deployed two national fiber-optic networks in 2012 and in 2017. Its two main telecommunications operators, Dhivehi Raajjeyge Gulhun (Dhiraagu, which is partially state-owned), and Ooredoo Maldives, have also actively made investments to improve domestic connectivity. The two operators recently collaborated with Huawei and Dialog AXIATA to build the Maldives-Sri Lanka Cable, connecting Colombo to Hulhumalé at a cost of USD 22 million.⁵⁷

Figure B.1: Most Maldivians have access to the Internet...

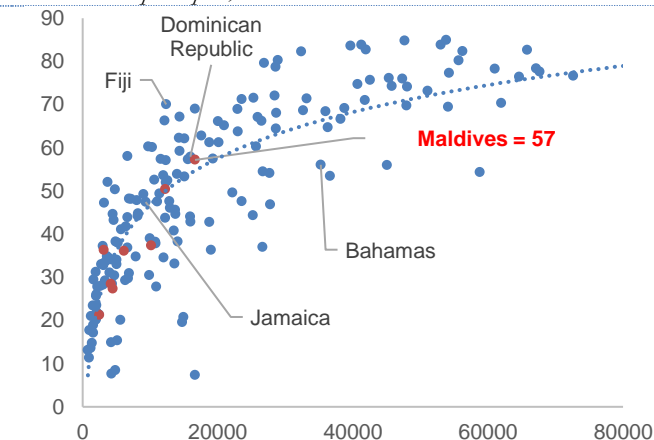
Y-axis: share of individuals who use the Internet, percent of population;
X-axis: GNI per capita, constant 2017 international USD



Source: World Bank WDI and ITU (2019).
Note: Countries in red are in South Asia.

Figure B.2: ...and mobile phone penetration is high.

Y-axis: share of unique mobile subscriptions, percent of population
X-axis: GNI per capita, constant 2017 international USD



Source: World Bank WDI and GSMA (2020a).
Note: Countries in red are in South Asia.

⁵⁵ Internet users are individuals who have used the Internet in the last three months via any digital device. The data is from the International Telecommunication Union (ITU)'s World Telecommunication/ICT Indicators Database, which collects data from an annual questionnaire sent to the authorities. However, according to preliminary data from [HIES 2019](#), 93 percent of all households had access to the Internet.

⁵⁶ [GSMA \(2020b\)](#).

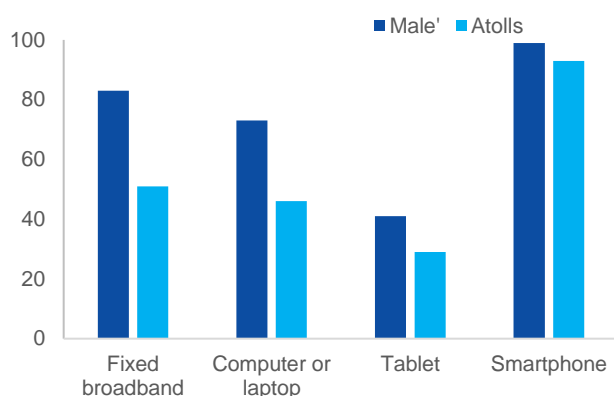
⁵⁷ [Developing Telecoms \(2020\)](#).

...but there is a stark digital divide.

However, there are still large gaps in digital technology adoption across groups, based on location and level of education. According to preliminary estimates from the 2019 Household Income and Expenditure Survey (HIES),⁵⁸ 83 percent of households in Malé have access to fixed broadband services, compared to 51 percent of households in the atolls (Figure B.3). Moreover, Internet users in Malé enjoy average download speeds that are twice as fast as those in atolls for fixed broadband connections (Figure B.4). There are similar differences in ownership of digital devices between Malé and the atolls. While smartphone ownership is much more prevalent across the country, with nearly all households owning at least one smartphone, the affordability of Internet services and the level of digital skills can affect whether these devices are actually used to access the Internet. According to the 2016/2017 [Demographic Health Survey](#), Maldivians with more than a secondary education are three times more likely to have used the Internet in the year prior to responding, compared to those with no education.

Figure B.3: Households in Malé are more likely to own digital devices and have access to broadband Internet...

Share of population, percent

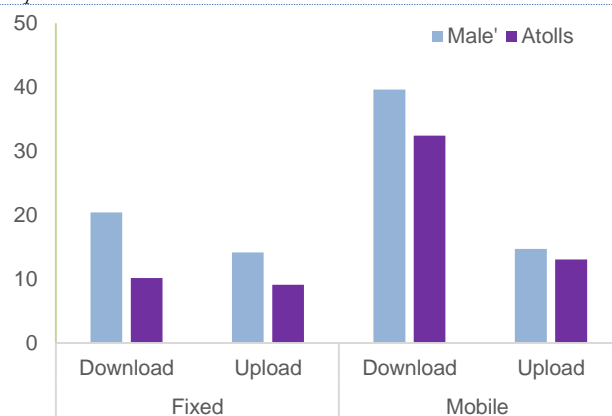


Source: NBS HIES 2019-2020.

Note: Survey does not include resort islands.

Figure B.4: ...and enjoy faster Internet speeds than those residing in atolls.

Mbit per second



Source: Based on the World Bank's analysis of Speedtest Intelligence® data from January 2020 to January 2021.

Most Internet users do not subscribe to fixed broadband services, possibly due to the high price...

The uptake of fixed broadband services,⁵⁹ which tend to provide greater speed and reliability, is relatively low for Maldives' income level. The share of Maldivians with a fixed broadband Internet subscription is lower than the average for upper-middle income countries and most Caribbean SIDS (Figure B.5). The high price of services is likely to be a constraint. According to ITU (2019) estimates, the price of a monthly subscription to an entry-level fixed broadband plan⁶⁰ is about 3.1 percent of Maldives' per capita income. This is higher than the UN-recommended target of 2 percent of per capita income and higher than most other countries in South Asia, although on par with other SIDS (Figure B.6).⁶¹ Prices are especially high relative to the quality of services that users receive: in January 2021, the average download speed in Maldives was 24.5 megabits per second (Mbit/s), behind Bangladesh (33.5 Mbit/s) and India (54.7 Mbit/s). By contrast, advanced economies are actively rolling out ultrafast broadband Internet at speeds over 100 Mbit/s. Taken together, this suggests that high-quality Internet services are unaffordable for many Maldivians.

⁵⁸ The survey was disrupted by the COVID-19 pandemic. The estimates here are as published by the NBS (2020).

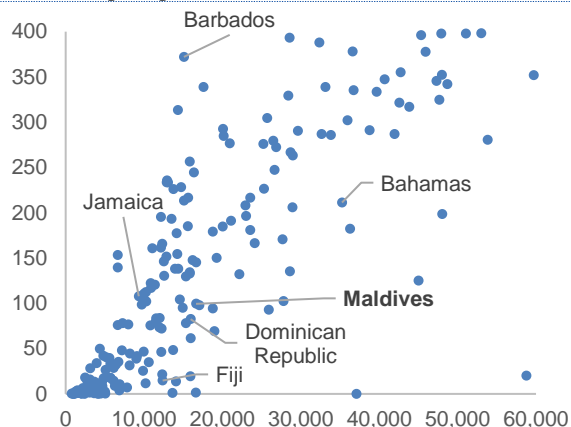
⁵⁹ Fixed broadband encompasses any high-speed data transmission to a residence or a business – i.e. a fixed location – using a variety of technologies, including cable, DSL, fibre optics, and wireless. Fixed broadband is usually faster and more stable, with lower latency compared to mobile broadband. It is the preferred mode of Internet connection for businesses and users that require faster and more reliable data transfers.

⁶⁰ Data from 2008-2017 refer to a fixed-broadband basket with a monthly data usage of at least 1 GB. Data 2018 and onwards refer to a revised fixed-broadband basket with a minimum monthly data usage of 5 GB. More details on the methodology can be found here [on ITU's website](#).

⁶¹ The United Nations [Broadband Commission for Sustainable Development](#)'s target is as follows: "By 2025, entry-level broadband services should be made affordable in developing countries, at less than 2 percent of monthly gross national income per capita."

Figure B.5: Fixed broadband penetration is still low...

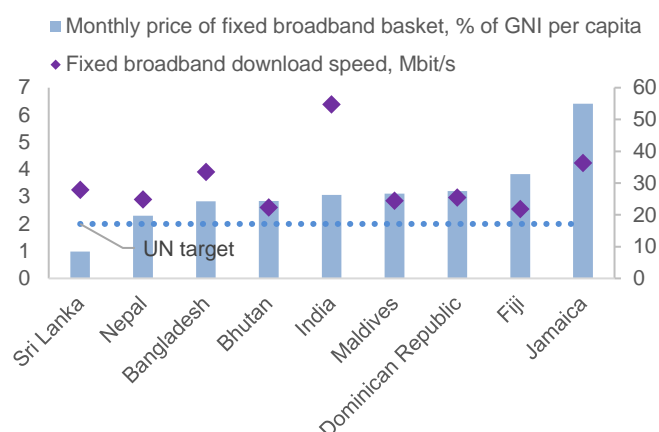
Y-axis: fixed broadband subscriptions per 1,000 inhabitants;
X-axis: GNI per capita, constant 2017 international USD



Source: ITU (2019) and World Bank WDI.

Figure B.6: ...in part because of the relatively high price of services.

Left axis: percent of GNI per capita; Right axis: Mbit/s



Source: ITU (2019), analysis by Ookla® of Speedtest Intelligence® data for January 2021.

Note: A basket refers to 5GB of data.

...but there are limited incentives for providers to offer more affordable services...

More competitive pressure at different points of the broadband value chain⁶² could help to drive down prices and improve the coverage and quality of fixed broadband services. Currently, Dhiraguu and Ooredoo Maldives are the largest operators of telecommunications services in the country, with some small ISPs holding minimal market shares.⁶³ While this market structure is typical for most SIDS due to their small size,⁶⁴ there are opportunities to strengthen the regulatory framework to boost competitive pressure. The country scored 8.3 out of 28 points on the ‘competition framework’ pillar of the ICT Regulatory Tracker (ITU, 2020), lower than other South Asian countries and comparable SIDS such as the Dominican Republic (28/28).

...so most people rely on their mobile phones to access the Internet.

Mobile broadband services are faster and more affordable than fixed broadband services in Maldives. On average, users pay about USD 15 for a monthly data allowance of 1.5 GB, or 2 percent of average monthly per capita income. This is on par with other upper-middle income economies (Figure B.7). The coverage and quality of mobile Internet connections is also relatively good. Network coverage, i.e. the geographical area covered by the network of a service provider, is at 100 percent of the country for 2G, 3G, and 4G wireless technologies. About 73 percent of all mobile data connections occur via 3G and 4G, and the average speed of mobile broadband is 44.3 Mbit/s.⁶⁵ Moreover, Maldives is the only country in South Asia to have deployed advanced 5G technology, launching it commercially in December 2020.⁶⁶ Despite these advancements, a third of Internet connections still rely on much slower 2G networks, a much higher proportion than in Sri Lanka and Bhutan, and than in advanced markets such as Singapore, where over 80 percent of internet connections rely on 4G networks. (Figure B.8). While 2G coverage can support basic email messaging and limited Internet browsing, it is insufficient to conduct more sophisticated activities such as the use of mobile applications, videoconferencing (e.g. for online learning) or electronic payments.

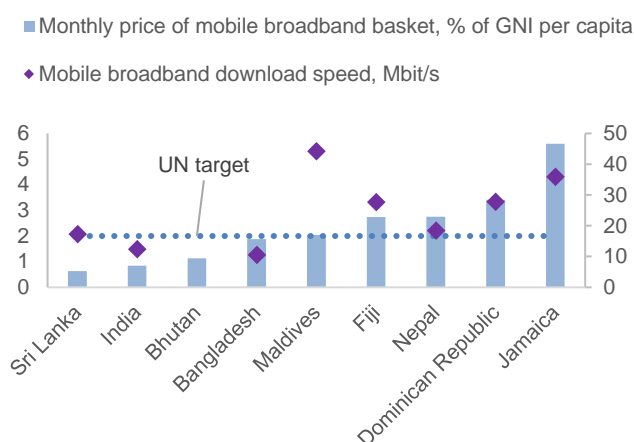
⁶² The broadband value chain includes international connectivity, national backbone that connect cities and in the case of Maldives islands/atolls, middle mile distribution networks that bring internet to a point in a community, and last mile connectivity that bring access to homes and businesses.

⁶³ The government announced that it would issue a license to a new telecommunications operator by the end of 2021. Source: [Times of Addu \(2021\)](#).

⁶⁴ [Internet Society \(2017\)](#).

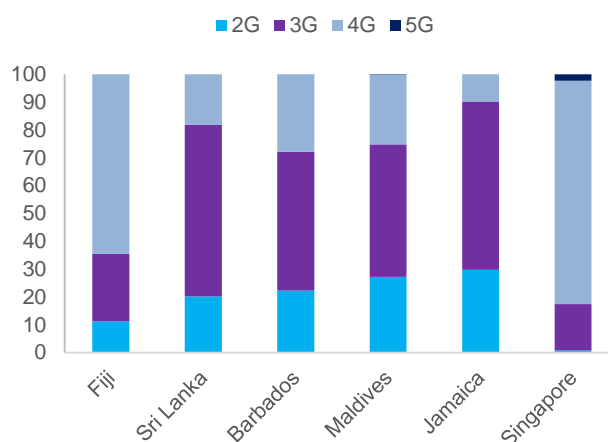
⁶⁵ Source: Analysis by Ookla® of Speedtest Intelligence® data for January 2021.

⁶⁶ Source: [The Edition \(2020\)](#).

Figure B.7: Mobile data is more affordable and faster...*Left axis: percent of GNI per capita; Right axis: Mbit/s*

Source: ITU (2019), analysis by Ookla® of Speedtest Intelligence® data for January 2021.

Note: A basket refers to a monthly data allowance of 1.5GB. No data available on mobile broadband download speed for Bhutan.

Figure B.8: ...and mostly occur on 3G or 4G networks.*Share of all connections, percent*

Source: GSMA (2020a).

Operators have offered temporary promotions and discounts on data packages due to COVID-19, but a more structural solution is needed

With the COVID-19 pandemic leading to increased Internet use, ISPs have responded to the President's call to offer discounts on Internet packages.⁶⁷ In mid-March 2020, local operator Dhiraagu offered a 25 percent discount for small and medium-sized enterprises and guesthouses on select business broadband packages, provided 5GB of data for free to students and teachers for a month, and doubled the amount of data allowances offered with add-ons.⁶⁸ It also offered a 50 percent discount on connection fees to new fiber broadband customers. Possibly because of these lower prices, nearly 6,000 additional fixed broadband subscribers were recorded from April to September 2020, twice the amount in the same period in 2019 (Figure B.9). However, Dhiraagu would likely not be able to sustain lower prices for a prolonged period as COVID-19 has impacted its revenues.⁶⁹ Bringing prices down permanently would require more structural solutions that not only involve ISPs, but also regulatory and other policymaking authorities.

Figure B.9: The number of fixed broadband subscribers has increased since the onset of the COVID-19 pandemic*Month-on-month change in the number of subscribers*

Source: Communications Authority of Maldives (2020).

⁶⁷ [The President's Office \(2020\)](#)

⁶⁸ [Mohamed \(2020a\)](#) and [Mohamed \(2020b\)](#).

⁶⁹ Revenues fell by 13 percent in 2020 due to decreases in roaming and tourism-related income. Source: [Secretariat of the Privatization and Corporatization Board \(2020\)](#).

3. Bigger businesses have embraced digital technologies, but there is still ample room for growth and for boosting digital entrepreneurship

Most micro, small and medium enterprises do not utilize digital technologies

In 2016, Maldives scored 0.63 on the World Bank Digital Adoption Index (DAI) for businesses,⁷⁰ higher than other countries in South Asia and other upper-middle-income SIDS such as Fiji (0.54) and the Dominican Republic (0.52). However, adoption of digital technologies by Maldivian businesses is uneven. The relatively low number of fixed broadband subscriptions suggests that most micro, small and medium enterprises (MSMEs) do not utilize technologies such as virtual private networks, data hosting and cloud-based services, which require fixed broadband to function smoothly.⁷¹ Use of electronic payment methods is also less common among businesses based in atolls due to difficulties connecting to the Internet.⁷² On the other hand, larger companies, especially in the banking and telecommunications sectors, use internal enterprise management solutions, digital platforms for business automation,⁷³ and have online payment platforms. The limited use of digital technologies might constrain innovation and resilience to future shocks.

The hospitality sector is relatively digitalized, but smaller guesthouses are left behind

A similar digital divide is present in the tourism and hospitality industry. Because the sector is dominated by resorts, which tend to be large businesses with international links (often through joint ventures), they tend to have high levels of digitization and automation. Many of the large resorts have a strong digital presence and multiple digital sales channels, including their own websites and booking platforms. They also utilize international digital platforms such as Booking.com and TripAdvisor. In addition, most hotels use digital hotel management systems and other Enterprise Resource Planning (ERP) solutions. By contrast, locally owned and operated guesthouses, however, are less connected. According to interviews with private sector stakeholders, issues with poor Internet connectivity in the outer islands, low awareness and underdeveloped digital capabilities and skills are some of the key factors hindering digital adoption.

The ICT sector could make a larger contribution to the economy and employ more people, especially women

The ICT sector plays a very small role in the economy and creates very few jobs for locals. According to preliminary estimates from the 2019 HIES, the subsector including ICT, “postal and telecommunications”, employed just 1.8 percent of all workers,⁷⁴ or just 3,100 workers (Figure B.10). Out of this number, only 22 percent are women, a lower share than in other sectors of the economy. Most firms are small, with a few dozen employees, and mainly provide small scale services in areas such as web development and task automation.⁷⁵ In addition to supply-side issues, low demand for ICT solutions is one key impediment to the sector's growth. The tourism and transportation sectors are dominated by foreign companies which utilize their own vendors, rather than local suppliers. Similarly, banking – one of the most digitized sectors – mostly utilizes in-house expertise for its ICT needs or hires international vendors. As a result, the ICT sector contributes a very small share of the economy, accounting for 3.4 percent of GDP (Figure B.11), compared to, for example, 5.8 percent in Mauritius.⁷⁶ While it would be challenging for Maldives to compete with more established countries in the region such as India and Sri Lanka in exporting ICT services, more widespread adoption of digital technologies by government and businesses across the economy could increase domestic demand for ICT activities and hence ICT sector growth.

⁷⁰ Calculated as the simple average of four normalized indicators: the share of businesses with websites, the number of secure servers, the speed of downloads and 3G coverage.

⁷¹ [Internet Society \(2017\)](#).

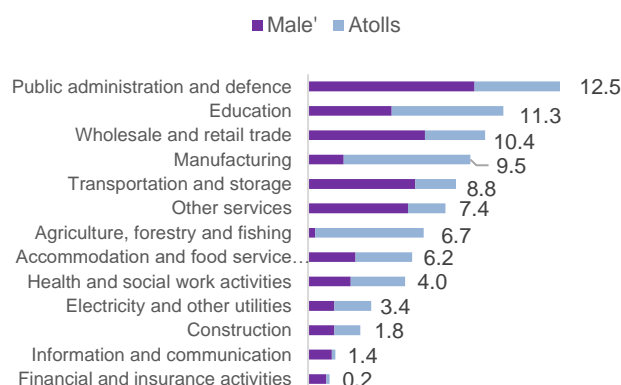
⁷² [UNDP and Ministry of Economic Development Maldives \(2020\)](#).

⁷³ Based on private sector consultations for this report.

⁷⁴ The HIES does not cover resort islands, so these workers are excluded from the survey.

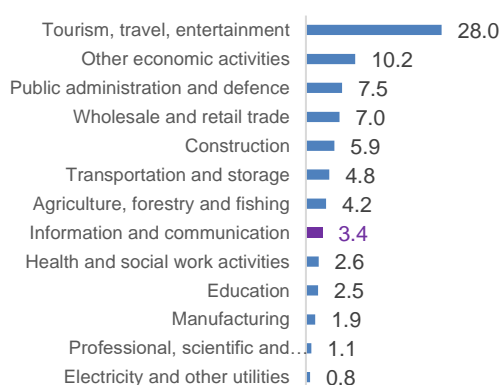
⁷⁵ Ibid.

⁷⁶ [EDB Mauritius](#).

Figure B.10: The ICT sector employs a very small share of workers...*Share of all employed workers, percent of total*

Source: NBS, HIES 2019/20, staff calculations.

Note: Survey did not include resort islands.

Figure B.11: ...and contributes only a small share of GDP.*Share of GDP, percent*

Source: NBS, staff calculations.

Mobile money services have taken off significantly in recent years...

One bright spark is in the digital finance space, where significant growth has occurred in recent years. Since Ooredoo Maldives launched its mobile money service, m-Faisaa, in July 2016, and Dhiraguu introduced Dhiraguu Pay in October 2017, the number and volume of transactions in this domain have grown significantly.⁷⁷ According to the World Bank (2018) Findex Survey, 23 percent of adults in Maldives have a mobile money account and 68 percent of adults report making or receiving digital payments, higher than other South Asian economies.⁷⁸ Such payments include, but are not limited to retail transactions made through mobile phones and the Internet, receiving wages, making government payments, as well as debit and credit card transactions. In November 2020, for example, the Maldives Inland Revenue Authority introduced m-Faisaa as a payment option for VaaruPay, its online service to collect various fees and charges.⁷⁹ Mobile payment service providers now have over 700 agents and merchants in more than half of all inhabited islands, including in over 70 islands that do not have commercial bank branches nor ATMs.⁸⁰ These services have helped to improve financial inclusion in the country, as the widely dispersed population makes it challenging and expensive to physically provide financial services to everyone.⁸¹ With more than 90 percent of adults owning a mobile phone, the highest share in South Asia, there is ample potential to develop digital financial services further.

...but the absence of a real-time payments system is a bottleneck to scaling up these services.

Despite these advancements, the national payments system cannot currently support instant digital payments or money transfers between different entities. Although the Maldives Monetary Authority (MMA) implemented the Real Time Gross Settlement System (RTGS) and Automated Clearing House (ACH) systems⁸² in 2011 and 2012 respectively, these systems are not fully integrated with some of the participating banks' internal core banking systems and hence real-time settlements still cannot happen. Moreover, these systems only operate during bank working hours and mostly only available by visiting the bank in person.⁸³ The absence of a real-time settlements system is a major bottleneck in the development of ecommerce, fintech and other online services solutions. As a result, most ecommerce activities have so far been

⁷⁷ MMA (2020a).⁷⁸ World Bank (2019).⁷⁹ MIRA (2020).⁸⁰ MMA (2020a).⁸¹ MMA (2016).⁸² The RTGS system processes and settles urgent, high value inter-bank transactions, and is based on the SWIFT messaging standard. The ACH system clears low value transactions in batches.⁸³ MMA (2020b).

limited to cash-on-delivery mode, rather than electronic payments. However, in November 2020, the MMA signed an agreement with TietoEVERY to implement a nationwide instant payments system. MMA is expecting this system to be available in use for domestic transactions by the last quarter of 2021.⁸⁴

4. Digitization of public services is gaining ground, but there is ample potential to scale up the use of digital technologies in service delivery

The government has established a digital ID and other online platforms to facilitate access to services

The government has established several digital public platforms to improve access to services for citizens and residents. In 2012, it introduced “eFaas”, an online identity management solution for citizens and expatriates, which was upgraded in 2020. eFaas can be used to access government services on the gov.mv platform, business portal, job center portal and several other services. The Ministries of Health, Tourism and Education have also established information management systems to provide comprehensive updates and information to the public. The latter, for example, has established an online education portal and an education management information system (MEMIS). In addition, a national single window is being developed to standardize the country’s customs and international trade procedures. The government also plans to expand the digital ID infrastructure to enable digital signatures in the public and private sectors.⁸⁵

...but adoption of digital government services is low.

International indices suggest there is ample room for growth in the adoption of e-government services in Maldives. The UN E-Government Development Index 2020⁸⁶ ranks Maldives 105th among 193 countries on e-government development. While Maldives’ score (0.574) has improved since the survey was last conducted in 2018 and is above the average for SIDS (0.53), it is still behind several South Asian countries (e.g. India, Bhutan) and most Caribbean SIDS. Maldives ranks particularly poorly on the “online services” component of the index (0.4353 or 132 out of 190 countries), which captures the availability and accessibility of online services, including the ability to conduct several transactions online.⁸⁷ However, the government is making efforts to establish the gov.mv portal as the single online platform for all publicly provided information by 2023.

Digital technologies have the potential to improve access to government services such as public education...

The COVID-19 pandemic has demonstrated that the potential and the capacity to use digital technologies to improve access to public services is significant in Maldives. In the education sector, for example, the government had distributed tablets to about 80 percent of students,⁸⁸ enabling rapid implementation of distance learning when schools closed in March 2020. The Ministry of Education introduced online and televised classes called “Telikilaas”, prepared by teachers across the country using their smartphones and the suggested screen recording software. The government’s online education platform, Filaa, supported teachers by providing a repository of digital textbooks and other resources. To encourage teachers to use Google Classroom and other G-Suite education apps, the Ministry launched a new training program for them. In addition, the government also partnered with Internet service providers to provide 5GB of free data to every student.⁸⁹ It also launched a manual for parents on cyber safety to minimize the risks associated with technology, including cyberbullying.^{90, 91}

⁸⁴ [MMA \(2020c\)](#).

⁸⁵ [ADB \(2019a\)](#); [ADB \(2019b\)](#); and stakeholder consultations.

⁸⁶ [United Nations](#) (2020). The score is a weighted average of three pillars: the adequacy of telecommunication infrastructure, the ability of human resources to promote and use ICTs, and the availability of online services and content.

⁸⁷ The online services questionnaire consists of 148 questions and the total number of points scored by each country is normalized to a range from 0 to 1. See annex A.4, page 236 onwards.

⁸⁸ [World Bank \(2020\)](#).

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ [Global Partnership \(2020\)](#).

Telehealth solutions could reduce the need to travel to Malé or abroad to receive medical treatment...	Digital technologies can greatly improve the quality and accessibility of healthcare services. As advanced health services are highly concentrated in Malé, patients from outer islands often need to travel to the capital for treatment. Many Maldivians also seek treatment abroad under the generous public health insurance program, Aasandha. Such travel and transportation costs, along with high spending on drugs, have been one of the cost drivers in public health spending. Travel restrictions during the COVID-19 pandemic, however, have exposed the limitations of such a system and led to higher demand for telehealth services. In November 2020, Ooredoo Maldives partnered with Sri Lanka's 'oDoc' telemedicine platform to provide certain healthcare services electronically. The use of digital technologies would also be integral to facilitate the procurement and distribution of vaccines.
Digital solutions can help enhance Maldives' capacity in disaster risk management	Digital technologies can play a significant role in building resilience against future disasters. The National Disaster Management Authority, which is mandated to coordinate disaster management-related activities in Maldives, is establishing an Emergency Operations Coordination Center (EOCC) to facilitate timely, risk-informed planning and decision-making. The EOCC is developing an integrated GIS-based disaster risk management information system that captures island level hazards, exposure and vulnerability, evacuation shelters, at-risk communities, disaster loss and damage. Other planned initiatives include establishing national level early warning mechanisms to enable people, telecom operators, the media and other stakeholders to take appropriate mitigation actions in a timely manner. Ensuring that these digital systems and data are interoperable across key ministries and agencies involved in disaster risk management, as well as across the national government and local councils, is critical to the effectiveness of these efforts. To this end, the government plans to build a universal technology stack ⁹² and establish regional data centers in the North and South. ⁹³
Improving legal and regulatory frameworks would help accelerate the adoption of digital technologies by businesses and the government	Robust legal and regulatory frameworks are essential for the public and private sectors to fully embrace digital technologies. At present, the legal framework to promote digital government and e-commerce is underdeveloped in Maldives. The 2020 UNCTAD's Global Cyberlaw Tracker places Maldives behind its peers in terms of legislations for digital development, in part due to the absence of legislations for electronic transactions, privacy, data protection, and cybercrime. In August 2020, a Consumer Protection Act was finally enacted, but other key legislations remain pending. The absence of legislation on personal data protection poses risks to collecting and using data in a transparent manner. Without adequate safeguards, the data provider may be reluctant to share data that can potentially be misused (see World Bank, 2021). ⁹⁴ In addition, Maldives still does not have electronic transaction laws that are instrumental for digitalizing government and commercial services (e.g. by enabling the transfer of data among different providers and using electronic signatures, contracts and records). Maldives is an outlier in this regard as relevant laws are in place for 82 percent of the 194 UNCTAD member states, including 18 out of 29 SIDS. While a draft law on electronic transactions has been prepared by the government, it has not yet been implemented. ⁹⁵ Finally, Maldives does not have an officially recognized national legislation pertaining to cybercrime, which creates significant vulnerabilities in the country's capacity to respond to cyber-attacks. ⁹⁶

⁹² A technology stack, also called a solutions stack, technology infrastructure, or a data ecosystem, is a list of all the technology services used to build and run one single application.

⁹³ [Government of Maldives \(2019\)](#).

⁹⁴ [World Bank \(2021\)](#).

⁹⁵ According to the [US State Department \(2020\)](#), the Government of Maldives was drafting amendments to the Companies Act, Electronic Transactions Bill, Mercantile Court Bill, and an Insolvency Bill which could affect business facilitation.

⁹⁶ In November 2016, Distributed Denial of Service attacks resulted in slow speeds and interruptions of Internet connections in Maldives.

Source: [Shaahunaz \(2016\)](#).

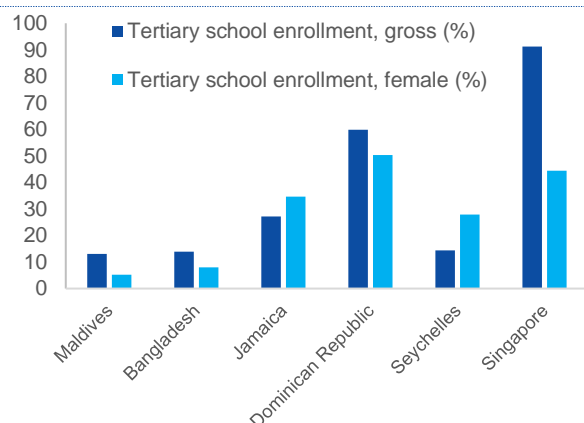
5. Investments in human capital are critical to scale up adoption of digital technologies

Digital literacy among the workforce is limited, and Maldives produces a very low number of STEM graduates...

To fully leverage the job creation and productivity-enhancing potential of digital technologies in all sectors, individuals must have the necessary knowledge and skills to take advantage of them.⁹⁷ While there is no available data on the digital literacy and skills of the general population and the workforce, half of MSMEs interviewed in a COVID-19 rapid assessment (UNDP and Ministry of Economic Development Maldives, 2020) did not have a single digitally literate employee. One possible explanation is that few Maldivians complete tertiary education. Only 13 percent of youth – and only 5 percent of young women – who are eligible to enroll in tertiary education actually do so (Figure B.12). Moreover, only around 5 percent of tertiary graduates pursue science, technology, engineering, and mathematics (STEM) programs, well below the Dominican Republic and higher-income SIDS such as Singapore (Figure B.13). Weak foundational skills may discourage youth from pursuing studies in STEM and careers in ICT-related fields. In 2017, approximately 20 percent of Maldivian students in Grade 4 and 33 percent in Grade 7 failed to achieve a minimum score of 40 percent in Mathematics.⁹⁸ Such low achievement levels in mathematics may hinder students from pursuing further education and employment in STEM jobs, which tend to require a higher level of ICT skills⁹⁹ compared to non-STEM jobs.

Figure B.12: Few young Maldivians enroll in tertiary education institutions...

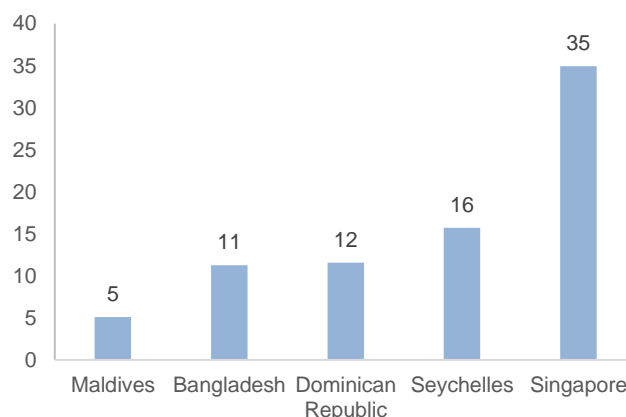
Gross enrollment rates at the tertiary level, percent



Source: UNESCO Institute for Statistics.
Note: Data refer to 2017-2018.

Figure B.13: ...and of those, fewer still graduate in STEM fields.

Share of tertiary graduates in science, technology, engineering & mathematics, percent



Source: UNESCO Institute for Statistics.
Note: Data refer to 2017 (latest available for Maldives).

The government has ramped up efforts to improve the level of digital skills...

The government has ramped up efforts to improve digital literacy and skills. By 2014, digital skills were included in the official curriculum starting from Grade 1.¹⁰⁰ As of 2018, all public schools had access to the Internet and most had basic technical facilities, such as projectors, smart boards, and computer labs.¹⁰¹ The Maldives National University offers four ICT-related degree/certificate programs,¹⁰² and several private universities also offer degrees and certificates in information technology (IT). Additionally, Maldives Polytechnic, a technical and vocational education and training (TVET) institution, offers certificate programs in IT, Programming, and

⁹⁷ “Digital skills” focus on what and how; for example, being able to follow a step-by-step process of creating an email account. “Digital literacy” focuses on why, when, who, and for whom. For example, a digitally literate person can recognize spam, know why it is being sent, and understand how email providers use filters to minimize potential harm.

⁹⁸ [Global Partnership \(2020\)](#).

⁹⁹ ICT skills refer to the ability to effectively use ICT systems and devices; this includes a range of abilities from developing, operating, and maintaining hardware and software, to the use of mainstream tools such as e-mail, Excel, Outlook, PowerPoint, and Word. ([World Bank, 2016](#))

¹⁰⁰ [UNESCO \(2016\)](#).

¹⁰¹ Ministry of Education (2019).

¹⁰² These are: i) Bachelor of Computer Science, ii) Bachelor of Information Technology, iii) Advanced Certificate in Information Technology, and iv) Cisco Certified Network Associate Routing & Switching. Source: [MNU](#).

IT Technician training. Outside of the formal education system, the Ministry of Communications, Science and Technology (MoCST) runs the e-Citizen program, designed to empower citizens with digital literacy skills including basic IT, information search, and on e-participation. The Ministry is currently working to update the program to focus on the skills required to use the internet responsibly, including media literacy skills, ethics and empathy online, and privacy and security.

...and the private sector is supporting budding digital entrepreneurs

The private sector is also supporting digital entrepreneurship programs. In 2018, Ooredoo Maldives started NIRU, the first accelerator program in the country to support startups developing digital solutions to social challenges. The NIRU 24-hour Hackathon provided top performers with seed funding, technical support and mentorship over 12 weeks. Similarly, in 2019, Dhiraagu, UNDP and the Ministry of Economic Development partnered with Google for Entrepreneurs to conduct the Techstars Startup Weekend, bringing together developers, business managers, and entrepreneurs. More recently, Dhiraagu and Spark Hub launched the Online Seedstars World Competition in May 2020. Overall, however, the digital innovation and entrepreneurship ecosystem is still in its infancy.

There is a lack of data on the level of digital literacy and skills in Maldives

Limited data makes it difficult to provide a more comprehensive assessment of the level of digital literacy and skills in Maldives. No data is available on the overall digital skills level of students (for example, as measured by the proportion of youth that have engaged in a list of computer-based activities in the last three months), much less disaggregated by gender. The case is the same for data on digital literacy¹⁰³ for the general population. Measuring these indicators on a regular basis would help Maldives track its progress towards bolstering digital readiness. Collecting this data in a transparent manner would also enhance evidence-based policymaking in this area.¹⁰⁴

6. Complementary interventions are needed to accelerate Maldives' digital transformation

The next phase of Maldives' digital transformation requires a holistic set of policy interventions

The first phase of the digital revolution in Maldives has yielded commendable results. Over 60 percent of the population uses the Internet, the number of digital government services is growing, and so is the adoption of digital technologies by businesses. The COVID-19 pandemic has further underscored the potential of digitalization to support economic recovery and resilience. Looking ahead, accelerated digitalization will be critical to implement the decentralization agenda, extend access to public services to the outer atolls, and to enhance the growth of the ICT sector. To ensure that no Maldivian is left behind in the digital transformation process, a wide range of interventions to strengthen the institutional, policy, legal and regulatory frameworks related to digital development and to improve digital skills is needed.

The government plays an important role in fostering an enabling environment for further investments in infrastructure

Maldives' digital infrastructure needs further investments to ensure equitable access to secure, affordable and reliable high-speed Internet services. The government plays an important role in creating an enabling environment that facilitates such investments and stimulates competition. To this end, the government could prepare and adopt a national broadband strategy in a consultative manner. Such a strategy would (i) define policy reforms and regulatory measures to foster competitive pressure with the aim of improving the affordability, coverage and quality of services; (ii) build the capacity of the regulatory authority, and (iii) assess how private capital could be mobilized to connect the outer islands.

¹⁰³ A person is (aged 5-69) is considered as a digital literate person if he/she can use a computer, laptop, tablet or smartphone on his/her own.

¹⁰⁴ [World Bank \(2021\)](#).

Establishing a clear roadmap and an institutional governance framework would help accelerate the digital agenda

A ‘whole-of-government’ approach¹⁰⁵ towards digital government, involving all stakeholders, will be needed to decentralize government functions and the provision of key public services. Multiple government actors are currently involved in the digital agenda, including the President’s Office (represented by the recently-appointed Chief Technology Officer), the Ministry of Communication, Science and Technology, and the National Center for Information Technology. Other ministries also play an important role; for example, the ministries of Education and Economic Development implement programs to build digital literacy among students and workers. To lay out the roles and responsibilities of different actors, the government could: i) prepare and adopt a Digital Government policy that outlines a roadmap for the government’s digital transformation efforts; ii) establish a clear institutional governance framework for digital government that clearly identifies the roles and responsibilities of the agencies involved; and iii) prepare an action plan for digital government activities in coordination with all stakeholders, including local island councils.

Closing legal and regulatory gaps would help increase adoption of digital technologies by businesses

Strengthening the underlying digital foundations that support digital businesses, including the ICT sector, would help Maldives leverage the potential of digital technologies to build economic resilience. As mentioned, a robust digital finance infrastructure, including the establishment of a unified digital payment system, would further accelerate the uptake of mobile money services and financial technologies. Furthermore, implementing key legislation related to electronic transactions, privacy and data protection and cybersecurity will help to create a more secure environment for digital transactions, thus improving transparency and confidence in the use of data and digital technologies. National legislation on cybersecurity would enable Maldives respond to cyber-attacks, classify critically important infrastructure components and assets sensitive to such attacks, and ensure the availability of systems and experts to prevent, as well as recover from them.

Boosting Maldivians’ digital capabilities and skills will ‘futureproof’ the workforce

Fostering digital literacy among all Maldivians is critical to ensure that everyone can take advantage of new technologies in an increasingly digital world. Developing more advanced digital skills would ‘futureproof’ the local workforce, enabling them to leverage new opportunities created by the digital economy. Achieving these objectives requires a multipronged approach, including: i) collecting better data on the level of digital literacy and skills; ii) continuing to support and scale up basic digital literacy and upskilling programs; and (iii) investing in market-driven digital economy skills that respond to rapidly evolving demands (e.g. cybersecurity and the fourth industrial revolution¹⁰⁶). Finally, equipping the public and private sectors to cope with cybersecurity threats is also important, given the increase in such incidents since the onset of the COVID-19 pandemic.¹⁰⁷

¹⁰⁵ In digital development, a whole-of-government approach refers to a collaborative culture, where all government agencies work across the state system towards shared development goals through integrated efforts.

¹⁰⁶ The Fourth Industrial Revolution (or Industry 4.0) is the ongoing automation of traditional manufacturing and industrial practices using modern smart technology. Large-scale machine-to-machine communication (M2M) and the Internet of things (IoT) are integrated for increased automation, improved communication and self-monitoring, and production of smart machines that can analyze and diagnose issues without the need for human intervention.

¹⁰⁷ These include online scams and phishing, malware, malicious domains and misinformation. See [Interpol \(2020\)](#).

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