Barbados Economic and Social Report 2020

Prepared by the Research and Planning Unit,
Ministry of Finance, Economic Affairs and Investment

Rescue, Recovery & Reform -
Building Resilience in a Time of COVID-19

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ABBREVIATIONS

ASYCUDA	Automated System for Customs Data
BDF	Barbados Defence Force
	Barbados Drug Service
PHL	Best-Dos Santos Public Health Laboratory
BERT	Barbados Economic Recovery and Transformation Plan
BEST	Barbados Employment and Sustainable Transformation Programme
BIDC	Barbados Investment Development Corporation
BMA	Barbados Manufacturing Association
BRA	Barbados Revenue Authority
BREXIT	British Exit from European Union
BSE	Barbados Stock Exchange
BWA	Barbados Water Authority
CAF	Corporacion Andina de Fomento (Development Bank of Latin America)
CAIPO	Corporate Affairs and Intellectual Property Office
CARE	Cooperative for Assistance and Relief Everywhere
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CARTAC	Caribbean Regional Technical Assistance Center
CCCCC	Caribbean Community Climate Change Centre
CCP	Counter-Cyclical Provisions
CDB	Caribbean Development Bank
CDC	Center for Disease Control
CIF	Cost, Insurance and Freight
COVID	Coronavirus SARS-CoV2 Disease
CRAFT	Clearance, Route, Altitude, Frequency, Transponder*
CSO	Civil Society Organisation
DCCA	Department of Commerce and Consumer Affairs
DFC	Development Finance Corporation
EC	Eastern Caribbean
EGFL	Enterprise Growth Fund Limited
EIB	European Investment Bank
ESEP	Education Sector Enhancement Program
EU	European Union
EVI	Economic Vulnerability Index
FEED	Farmers' Empowerment and Enfranchisement Drive
FISIM	Financial Intermediation Services Indirectly Measured*
FTC	Fair Trading Commission
FY	Fiscal Year
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
GNI	Gross National Income
GOB	Government of Barbados
HAI	Human Assets Index

HIV	Human Immunodeficiency Virus
HOPE	Home Ownership Providing Energy Project
ID	Identification
IDB	Inter-American Development Bank
IIP	Index of Industrial Production
ILO	International Labour Organisation
IMF	International Monetary Fund
ISM	International Securities Market
LDC	Least Developed Countries
LNG	Liquefied Natural Gas
LPG	Liquid Petroleum Gas
METVT	Ministry of Education, Technological and Vocational Training
MIST	Ministry of Information and Smart Technology
MSME	Micro, Small and Medium Enterprises
MVI	Multi-Dimensional Vulnerability Index
MW	Megawatts
NAB	National Assistance Board
NCD	Non-Communicable Diseases
NIS	National Insurance Scheme
NTI	National Training Initiative
OAS	Organisation of States
OECS	Organisation of Eastern Caribbean States
PAHO	Pan-American Health Organisation
PPF	Project Preparation Facility
QEH	Queen Elizabeth Hospital
RBPF	Royal Barbados Police Force
RE	Renewable Energy
SAR	Special Administrative Region (Macao)
SBDC	Small Business Development Centre
SDG	Sustainable Development Goals
SIDS	Small Island Development States
STI	Sexual Transmitted Infection
UDC	Urban Development Commission
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Children Emergency Fund
UNWTO	United Nations World Tourism Organization
US	United States
USA	United States of America
USD	United States Dollar
VAT	Value Added Tax
WSRN	Water Sector Resilience Nexus for Sustainability
YES	Youth Entrepreneurship Scheme

I. EXECUTIVE SUMMARY

The COVID-19 pandemic which emerged in Wuhan, China in December 2019 had a devastating impact on the world economy in 2020. There was a 3.3 percent global contraction, an average decrease of 4.7 per cent in advanced economies and 2.2 per cent in emerging economies. Real GDP growth in tourism-dependent countries in the Caribbean Region plunged from 0.5 per cent in 2019 to minus 9.9 per cent in 2020. Growth among commodity exporters such as Guyana, Suriname and Trinidad and Tobago fell by 0.6 per cent on average from 1 per cent in 2019. During the course of 2020, regional governments employed a range of approaches to mitigate the impact of the pandemic, including tax instruments, targeted spending, and financial relief for small and medium-sized enterprises.

Barbados, after confirming its first two cases of COVID-19 on March 17, 2020 saw active cases climbing to 56 by April 12, 2020 before moderating towards the end of 2020 due to Government urgent and pre-emptive responses. The GOB rolled-out a phased National Coronavirus Response Plan which was supported by emergency public health legislation, including the activation of isolation and treatment centres, imposition of limits on public gatherings, and utilization of supplementary medical facilities.

Initially, a 24-hour curfew was imposed which restricted non-essential personnel to their homes. In addition, all non-essential businesses were closed and only critical Government offices, which operated on reduced hours and staff to ensure adherence to strict social distancing protocols, were allowed to remain open. Enhanced screening procedures were implemented at all ports of entry and a newly re-purposed and refurbished quarantine facility was set up at Harrison Point. Hotels were also used as quarantine centres.

Overall, activity in the tourism sector declined to an estimated $409.1 million in 2020, from $1,379.8 million in 2019, a figure which was well below the average of $1,190.8 million recorded from 2006 to 2019. Contributing to the decline in tourism output was the sharp decline in stay-over tourist arrivals, which fell by 71 per cent when compared to 2019 with 207,339 visitor arrivals recorded, some 507,299 fewer arrivals than in 2019. Similarly, cruise passenger arrivals, during the review period January – August 2020, declined by 193,364 passengers to reach 343,771 when compared to the corresponding period of the previous year

COVID-19 upended the first signs of a promising economic recovery and the considerable progress which the GOB made over the previous three years. This was underpinned by the achievement of an unprecedented primary surplus target of 6 per cent of GDP at the end of fiscal year 2019/20 and the reduction of the debt-to-GDP ratio to 118 per cent of GDP in 2019 from a high of 148.4 per cent in 2017. In addition, international reserves had increased to 40.7 weeks of import cover or $2,660.7 at the end of calendar year 2020. This was well above the international benchmark of 12 weeks of import cover, and represented an increase of $1,179.7 million to cushion the impact of reduced foreign exchange inflows from travel credits and foreign investment.

Under the BERT plan, the primary balance target was 3.5 per cent in fiscal year 2018/19 and 6 per cent in 2019/20. With the onset of the global pandemic, which commenced soon after many of the targets under the BERT Plan had been met, the primary balance target was revised to 1 per cent of GDP for 2020/21 to accommodate significant declines in public revenues and support public health care and social safety programmes. The primary balance target for 2020/21 was subsequently revised to minus 1 per cent of GDP to accommodate worse than anticipated revenue declines and continued expenditure on public health and social welfare programmes.

Following national restrictions on movement, approximately 52,000 unemployment claims were received by the National Insurance Department during 2020. At the end of December, 2020, the rate of inflation declined to 2.9 per cent compared to 4.1 per cent the previous year.

The GOB, in charting the course to combat and navigate the vagaries of the global pandemic, has identified critical emergency health and capital expenditures. District polyclinics were retrofitted, critical emergency care facilities of the hospital were refurbished, and new isolation centres have been constructed while essential medical supplies were procured to manage and care for persons diagnosed with the COVID-19 virus. Capital spending was further boosted to renovate schools and government buildings to allow for the appropriate social distancing protocols.

Special emphasis was made to introduce social programmes for displaced workers, in particular, the Household Survival Programme was further capitalised to the tune of $10 million to allow for the urgent response of supporting the most vulnerable families in order that they could obtain the essential items necessary for them to survive during this period of economic crisis. The program catered to vulnerable families providing them with a fillip of $600 each month.

As a direct implication towards mitigating the impact of the COVID-19 pandemic, expenditure increased from $2,407.9 million in 2019/2020 to $2,716.8 million in 2020/2021. This additional funding was made available primarily through international financial institutions which accounted for approximately $225 million in financing. Additionally, financial resources were redeployed from various programming activities scheduled for the FY2020/21 including: the Job Start Plus programme (which was geared towards providing young persons with job attachments); the Barbados Youth Advance Corps residency phase; the 2020 Housing and Population Census which was deferred until FY2021/22; the Barbados Digital ID and National ID card replacement project which was also deferred until FY2021/22; and expenditure related to overseas travel was foregone.

Total revenue decreased from $2,984.2 million in 2019/2020 to $2,563.3 million in 2020/2021 as a result of the unexpected halt in business activity following the onset of the COVID-19 pandemic response and significantly reduced tax revenues. Total tax revenue declined by $383.4 to $2,384.8 million. A fall-off in VAT, income tax and excise tax revenues, of approximately $260.6 million, $146.6 million and $96.8 million, accounted for the majority of the falloff. Non-tax revenue decreased by approximately $16.8 million. Corporate tax revenues during the review period, however, increased by $303.9 million to $612.9 million.

During 2020, the $300.0 million Barbados Employment and Sustainable Transformation (BEST) programme was also introduced as a fiscal stimulus package to support the transformation of the tourism and direct tourism related service sectors and to protect employment caused by the onset of the COVID-19 pandemic globally. In addition, the Self-Employed Business Interruption Benefit was announced in May, 2020 designed as a one-time benefit to assist self-employed people whose business activities were interrupted due to the pandemic.

A Small Business Wage Fund ($2.0 million) was established to assist businesses which were too small to be eligible for the payment of VAT or VAT refunds to cope with challenges related to COVID-19 and a VAT Loan Fund ($40.0 million) was established to assist companies whose cash flows were disrupted by measures to contain the pandemic with avoiding insolvency, bankruptcy and further unemployment. In 2020, the Government introduced the Home Ownership Providing Energy (HOPE) Programme, to support existing efforts to meet the local demand for affordable housing. This initiative is expected to include the construction of 1,000 affordable, energy-efficient, solar-powered homes.

Several initiatives were undertaken to expand and rehabilitate the current road network in 2020. As at December 31, 2020, 26 roads were completed at an approximate cost of $28.3 million.

During 2020, fuel imports declined by 32 per cent to $348.8 million due in large measure to decreases in international petroleum prices and reduced domestic demand for transportation and electricity as a consequence of COVID-19. The pandemic led to a decline in the consumption of key oil and gas sub-sectors such as gasoline (16 per cent), fuel oil (8 per cent), kerosene (4 per cent), natural gas (10.0 per cent), electricity (5.3 per cent) and LPG (3 per cent). Conversely, diesel consumption increased by 0.13 per cent. Efforts to transition Barbados' economy away from fossil fuels and towards 100 per cent renewable energy sources by 2030 continued during 2020 with the installation of 9 MW of distributive renewable energy to the national grid. During 2020, thirty-five (35) electric buses were procured for use by the Barbados Transport Board as part of the Government's efforts to become carbon neutral by 2030.

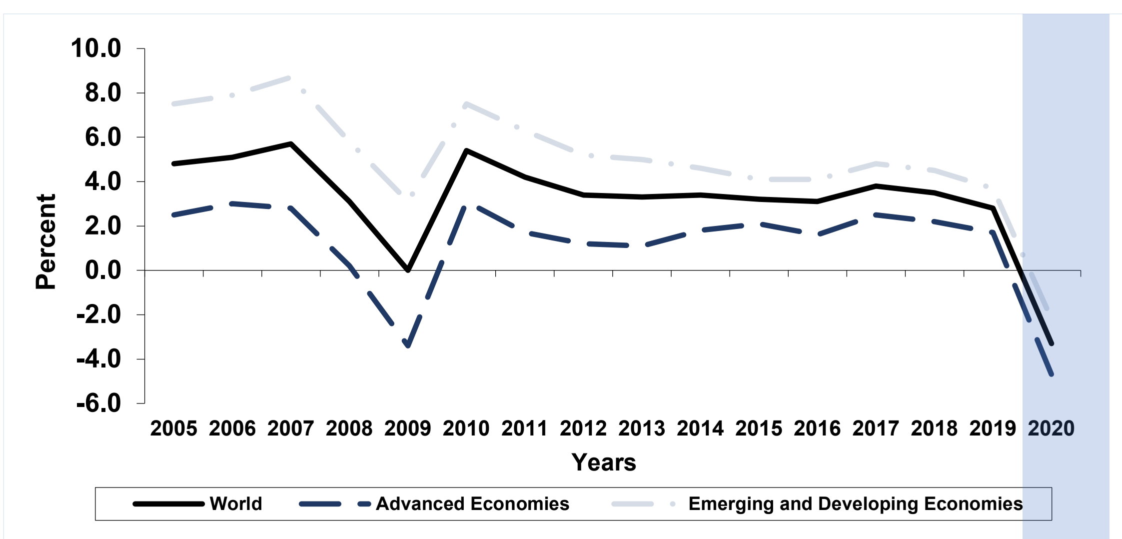
II. THE INVISIBLE HAND OF COVID-19 AROUND THE WORLD

INTERNATIONAL DEVELOPMENTS: FALLOUT AND RESPONSE

The coronavirus disease 2019 (COVID-19) emerged in Wuhan, China in December, 2019, and, since then, has had a devastating impact on the world economy. As a result, 2020 was a challenging year for the world economy. Prior to the pandemic, trade relations among major economies were strained and several economies experienced stagnant or declining growth and social unrest. COVID-19 further compounded these challenges by dampening global economic activities.

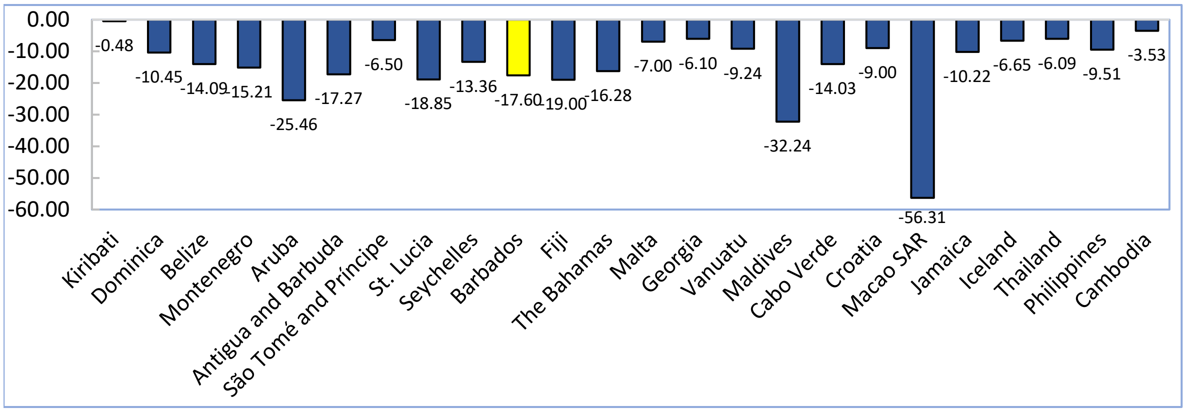
The global economy contracted by 3.3 per cent in 2020, with an average decrease of 4.7 per cent in advanced economies, and 2.2 per cent in emerging economies. This was slightly higher than previous projections which supported a sturdier recovery on average in the second half of 2020.

Most countries, given their unfamiliarity with the pandemic, closed their borders as a first response, and this had a debilitating effect on global economic performance. Travel restrictions, particularly in tourism-dependent countries, crippled public revenues, which in turn led to reduced resources to address challenges related to the virus.



SOURCE: International Monetary Fund

FIGURE 1: 2020 GDP GROWTH TOURISM DEPENDENT COUNTRIES



SOURCE: International Monetary Fund

The global inflation rate increased steadily between 2016 and 2018 to 3.8 per cent in 2019. Global prices were already on a downward trajectory when the pandemic commenced. After the pandemic arrived in early 2020, the growth rate gradually regressed to 2.7 per cent by the end of the year.

The price of crude oil fell from US$62 dollars in 2019 to US$51 a barrel in 2020. Prices fell significantly between February and April, 2020, a period which coincided with high levels of uncertainty surrounding the rapid spread of COVID-19 around the world.

The COVID-19 outbreak exacerbated global debt which had increased to over 170 per cent of global GDP since 2010. Global debt is projected to skyrocket as countries use limited resources to prevent, contain and treat the coronavirus.

According to the World Bank, global extreme poverty, defined as living on less than $1.90 a day, is expected to rise for the first time in 20 years as a result of the impact of COVID-19. It has been projected that 88 to 150 million people entered extreme poverty as a result of the pandemic.

The pandemic poses a serious threat to the advancement of gender equality through the reversal of significant strides made towards shrinking the gender pay gap. According to the International Labour Organisation (ILO), unemployment levels were significantly higher for women. COVID-19 severely impacted the tourism and retail sectors where women are more likely to be employed. Consequently, women became unemployed at a faster rate than men

The pandemic was particularly devastating on tourism-dependent countries, and was second only to war-torn countries in terms of its negative impact on GDP. Restrictions on international travel to curb the spread of the coronavirus severely disrupted tourism worldwide. The United Nations World Trade Organisation (UNWTO) estimates that tourism arrivals fell by 74 per cent from 2019 levels. The Maldives, an attraction primarily for the rich and famous, saw its GDP growth contract by 32.24 per cent, while Aruba's contracted by 25.46 per cent. Macao SAR experienced the highest contraction worldwide, 56.31 per cent. Although tourism accounted for 10 per cent of global GDP before the pandemic, revenues from tourism are not expected to reach 2019 levels until 2023.

Advanced Countries

Economic activities in advanced economies contracted by 4.7 per cent in 2020, which was an improvement on IMF projections, due to unforeseen developments in the second quarter in the United States and the Euro bloc. In the United States, the government implemented fiscal measures such as the US$ 8.3 billion Coronavirus Preparedness and Response Supplemental Appropriations Act which was geared towards developing vaccines, virus testing, two weeks of paid sick leave, and up to 3 months of extended sick leave at two-thirds salary for people who were infected. Job creation rose and unemployment fell significantly in the United States in May, 2020. However, inflation remained below pre-pandemic levels primarily due to consumers' scepticism about spending.

TABLE 1 - INDICATORS OF ECONOMIC PERFORMANCE IN ADVANCED ECONOMIES 2019 – 2020

	Real GDP (% change)		Unemployment Rate (Annual Avg.) (% change)		Consumer Price Index (% change)	
Country	**2019**	**2020e**	**2019**	**2020**	**2019**	**2020e**
United States	2.2	-3.4	3.9	8.9	1.8	2.1
Japan	0.3	-5.1	2.4	3.3	0.5	-0.6
Germany	0.6	-5.4	3.2	4.3	1.4	0.3
France	1.3	-9.0	9.1	8.9	1.6	-0.5
Italy	0.2	-9.2	9.2	11.1	0.5	0.1
U.K	1.4	-10.0	3.8	5.4	1.8	0.3
Canada	1.9	-5.5	6.1	9.7	1.9	0.3

SOURCE: IMF World Economic Outlook 2020 and ILO World Employment Social Outlook 2020

Developing Economies

2020 presented an austere outlook for trade in emerging economies, particularly those dependent on tourism, which was affected by travel bans and fears of contracting the virus. The spread of COVID-19 and the heavy burden it placed on public health care systems as well as declining revenues in the tourism sector had a severe impact on emerging economies, which contracted by 1.2 per cent to 4.4 per cent at the end of 2020.

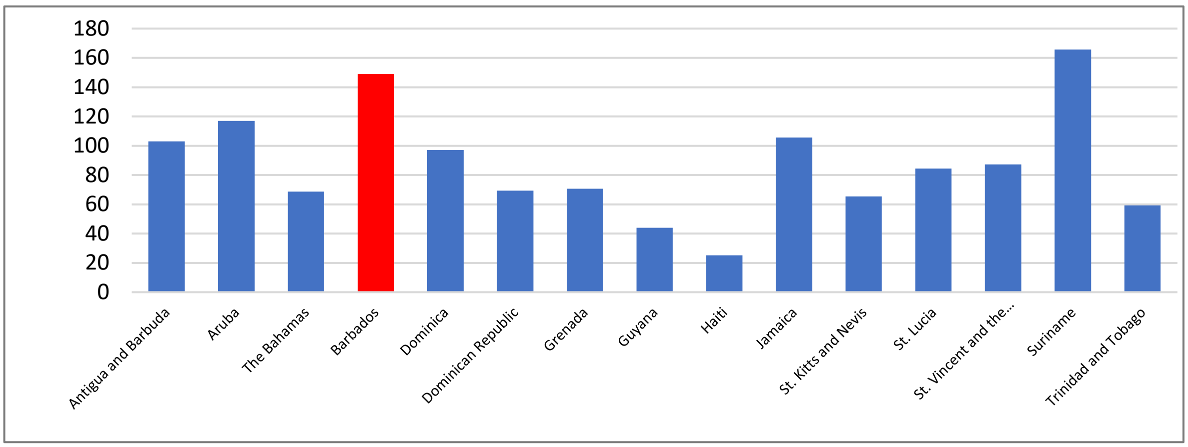
The US-China trade war and other economic shocks such as BREXIT had already affected developing countries' trade growth well before the pandemic global inflation declined in early 2020, but increased in India due to rising food prices and supply chain disruptions.

The Caribbean

Year-on-year real GDP growth for tourism-dependent countries in the Caribbean Region plunged from 0.5 per cent in 2019 to minus 9.9 per cent in 2020. Travel restrictions imposed worldwide, but specifically by North America, the United Kingdom and other European nations, severely impacted tourism in the Region. Tourism almost ground to a halt, and while some countries adopted remote working opportunities for foreign workers, as in the case of Barbados and the Cayman Islands. The reduction of flights, cruises and hotels, and the cancellation of well-attended annual festivals also contributed to revenue losses.

Caribbean countries, including Barbados and Jamaica which were already in the middle of economic adjustment programmes, were greatly impacted by the pandemic. All economies within the Caribbean, with the exception of Guyana, registered economic contractions during 2020, with tourism-dependent countries averaging an estimated 18 per cent decline in economic activity. Real GDP growth among commodity exporters such as Guyana, Suriname and Trinidad and Tobago fell by 0.6 per cent on average from 1 per cent in 2019.

FIGURE 3: DEBT TO GDP RATIO FOR SELECT CARIBBEAN COUNTRIES 2020



SOURCE: World Economic Outlook Database

Most countries in the Region were already saddled with debt-to-GDP ratios of over 60 per cent in 2019, and, with the exception of Haiti, debt-to-GDP ratios rose with varying intensities due to COVID-19. Suriname recorded the highest increase in debt-to-GDP ratio, 79 per cent, in comparison to the previous year, followed by St. Lucia and the Dominican Republic with 38 and 30 per cent, respectively. At the end of 2020, Suriname reported the highest debt-to-GDP ratio, 166 per cent, as the pandemic amplified several challenges, including inadequate digitalization and infrastructure.

Poor world trade positions, coupled with the emergence of the pandemic, exacerbated trade challenges in the Region. As a result of border closures, regional trade contracted, with average exports and imports falling by 29 and 21 per cent, respectively. Guyana was the only country in the region which experienced growth in both exports and imports which were, 159 per cent and 6 per cent, respectively.

A Snapshot of Regional Responses to the Pandemic

During the course of the year, regional governments employed a range of approaches to mitigate the impact of the pandemic, including tax instruments, targeted spending, and financial relief for small and medium-sized enterprises.

The Jamaica government cut taxes by 0.6 per cent of GDP and used other measures to combat the coronavirus, including implementation of the COVID-19 Allocation of Resources for Employees (CARE) which provided cash grants for employees who lost their jobs, businesses in specific sectors, and other vulnerable segments of the population.

TABLE 2 - TOTAL CONFIRMED CASES, TESTS AND DEATHS IN 2020 FOR SELECT COUNTRIES

Country	Confirmed Cases	Cases Per 100,000	Deaths
Bahamas	7857	7871*	170
Barbados	372	372*	7
Grenada	130	130	1
Guyana	6319	6319*	164
Jamaica	12827	12827	302
St. Lucia	353	353*	5
Trinidad & Tobago	7132	7132	126
Total	**34,990**	**35,004***	**775***

SOURCE: World Health Organisation
*Figures reported at 7871 January 1, 2021.

The Bahamas government pledged financial support to mitigate the economic fallout due to the virus. In this regard, $121.7 billion was spent on health care, food programmes, self-employment support, and financing for companies to retain 80 per cent of their workforce.

St. Lucia pre-emptively sought to mitigate the potential effects of the pandemic through receipt of a US $30 million COVID-19 response, recovery and resilience development policy loan from the World Bank in January, 2020. The Government tried to soften the impact of COVID-19 on its citizens, particularly the most vulnerable, as well as moderate the fallout from the collapse of the tourism sector which contributed 43 per cent of GDP, 43 per cent of employment, and 46.9 per cent of exports at the end of 2019. Other measures were aimed at shoring up public health care and saving jobs by enhancing business continuity.

In 2019, St. Kitts and Nevis' tourism sector contributed over 60 per cent to its GDP. The Government augmented spending on health and expanded poverty alleviation projects by providing financial support to households with incomes of less than EC$3,000 monthly as well as people who were unemployed as a result of the pandemic.

The Government of Barbados introduced limitations and restrictions on movement as part of its policy response. The Government also introduced a suite of economic and fiscal stabilisation measures to address the devastating fallout from the pandemic. A $20 million Household Survival Program was among the key measures implemented to assist displaced workers with unemployment benefits.

Trinidad and Tobago, while not entirely dependent on tourism, was impacted by significant reductions in global oil prices. The Government provided financing relief for 3 months for those who were temporarily unemployed or had reduced incomes, while credit union loans with reduced interest rates were made available to small businesses. Waivers were also placed on VAT and import duties for medical supplies.

III. THE EVOLUTION OF THE COVID-19 SHOCK ON BARBADOS' ECONOMY

Barbados confirmed its first two cases of the novel coronavirus on March 17, 2020. By April 12, 2020, active cases had climbed to 56. A 24-hour curfew was imposed on April 3, 2021, and non-essential businesses and the ports of entry were closed. The cessation of business activities dealt a devastating blow to the economy, and impacted economic growth which was projected at approximately 1.5 per cent for 2020.

In an effort to control the spread of the coronavirus, the Government of Barbados rolled-out a phased National Coronavirus Response Plan. The response framework, which was supported by emergency public health legislation, included the activation of isolation and treatment centers, imposition of limits on public gatherings, and utilization of supplementary medical facilities. Initially, a 24-hour curfew was imposed which restricted non-essential personnel to their homes.

In addition, all non-essential businesses were closed and only critical Government offices, which operated on reduced hours and staff to ensure adherence to strict social distancing protocols, were allowed to remain open. Enhanced screening procedures were implemented at all ports of entry and a newly re-purposed and refurbished quarantine facility was set up at Harrison Point. Hotels were also used as quarantine centres.

TABLE 3 - CHRONOLOGY OF THE HEALTH-EMERGENCY MEASURES 2020

(CURFEW, NATIONAL SHUTDOWN, AND PHASED REOPENING) OF THE ECONOMY

March 26	Stage Three of the COVID-19 National Preparedness Plan was activated. In addition, a public health emergency was declared, and it was announced that a national curfew would commence from 28 March at 8:00 pm.
March 28	The national curfew commenced between the hours of 8 pm to 6 am.
April 03	A 24-hour national curfew was imposed on April 3.
April 15	Fruit and vegetable vendors were allowed to resume operations, while supermarkets, fish markets, hardware stores, and banks were subject to new protocols through the implementation of an alphabetic system.
April 20	The national curfew remained in place and restrictions were adjusted, including longer opening hours for supermarkets and mini marts; computer stores were allowed to open for deliveries and curb-side pickups; and gas stations were no longer required to implement the alphabetic shopping schedule.
April 24	The Parliament extended the State of Emergency to June 30, 2020.
April 30	From May 4, the 24-hour curfew was adjusted to 8:00 pm to 5:00 am. Businesses deemed to be low-risk were allowed to re-open, the sale of alcohol was no longer prohibited, and were beaches open from 6:00 am to 9:00 am daily.
June 30	With the positivity rate for COVID-19 cases falling, and with the need to jump-start economic activity and reduce unemployment, curfew restrictions were removed from June 30.

Barbados, which is heavily dependent on tourism, only received a fraction of its average annual visitors. As a consequence, estimated tourist arrivals fell by 71 per cent, and resulted in a negative knock-on effect on other related ancillary sub-sectors, particularly accommodation and food services.

Altogether, the accommodation and food services sub-sector declined by 59.6 per cent in 2020, which represented the largest decline among all sub-sectors.

The transportation and storage sub-sector is estimated to have recorded the second largest decline of 19.2 per cent due primarily to national restrictions on movement and requirements that public service vehicles limit their passengers to 60% of maximum capacity. COVID-19 upended the first signs of a promising economic recovery and considerable progress which had been made over the previous three years with the achievement of an unprecedented primary surplus target of 6 per cent of GDP at the end of fiscal year 2019/20 and a reduction of debt to 118 per cent of GDP in 2019 from a high of 148.4 per cent in 2017. In addition, international reserves increased to 40.7 weeks of import cover (more than three times the international benchmark of 12 weeks) by the end of calendar year 2020 from 18.6 weeks in 2019.

The pandemic introduced an element of deep uncertainty against the backdrop of the IMF-supported BERT Plan which was implemented in 2018. The main risk emanated from the need to maintain targets under the BERT Plan in the face of sharp declines in Government revenue, especially from transaction-based taxes which are dependent on business activity, and which had been subdued for the duration of the second quarter of 2020.

Under the BERT plan, the primary balance target was 3.5 per cent in fiscal year 2018/19 and 6 per cent in 2019/20. With the onset of the global pandemic, which commenced soon after many of the targets under the BERT Plan had been met, the primary balance target was revised to 1 per cent of GDP for 2020/21 to accommodate significant declines in public revenues and support public health care and social safety programmes. The primary balance target for 2020/21 was further revised to minus 1 per cent of GDP to accommodate worse than anticipated revenue declines and continued expenditure on public health and social welfare programmes.

The debt-to-GDP ratio rose to 142.3 per cent of GDP in 2020 primarily as a result of a 18% contraction in economic activities, while increased public expenditure geared towards mitigating the impact of the pandemic played a modest role. This increased debt-to-GDP ratio threatened to erode the achievements made under the debt restructuring exercise which commenced in 2018 with Barbados' domestic creditors and concluded in 2019 with external creditors.

The balance of payments also represented another source of risk as the current account gap widened primarily as a result of lower tourism receipts and export trade. Despite the challenges and imminent risks posed to Barbados' economy, the Government continued its implementation of the BERT Plan, albeit with revised performance targets.

IV. COVID-19'S DEVASTATING IMPACT ON THE BARBADIAN ECONOMY

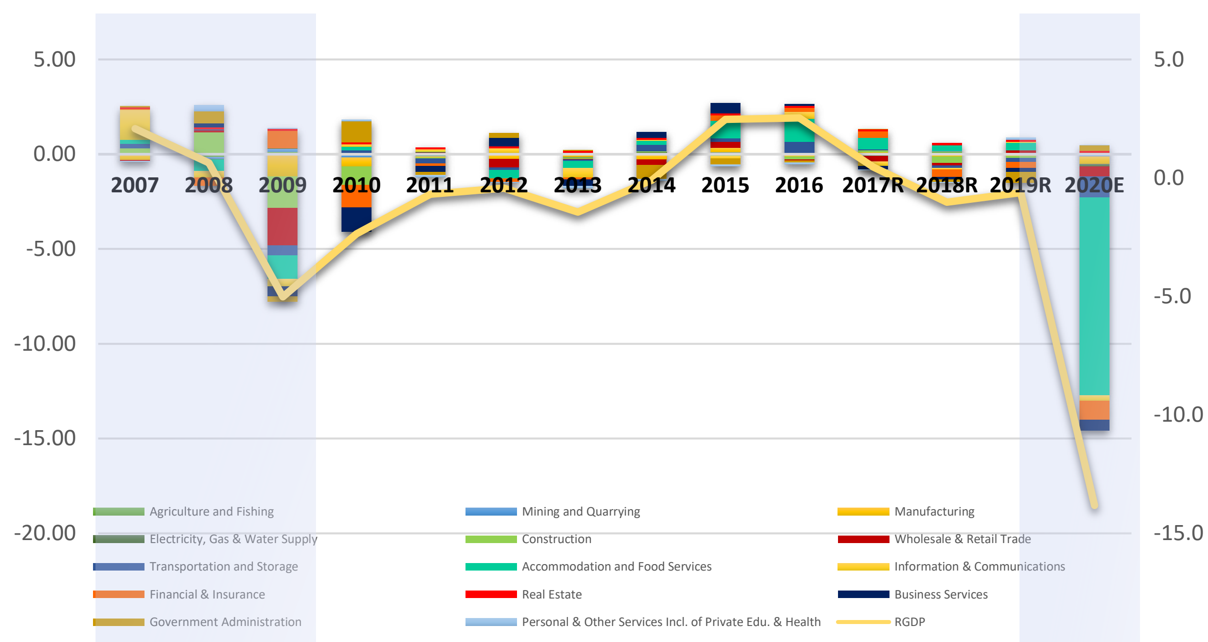
A Tale of Two Recessions/Recessionary Epochs

While both recessionary periods had widespread economic consequences, they were characteristically similar in some respects and different in others. Both the 2008 financial crisis and the 2019 pandemic-induced recession shared an element of uncertainty, especially in relation to the pace and robustness of economic recovery. Both recessions emerged in one of the two leading economies (the United States in 2008 and China in 2019) and served as the underlying current that spread rapidly across the global financial system, bringing the world to the edge of economic collapse. The nature of the shocks was quite different in that the 2008 crisis was demand-driven while the COVID-19 recession was the result of a supply-side shock.

The 2008 crisis was the result of an endogenous shock in the United States' financial system which had its origin in the subprime mortgage market. Unchecked financing practises and inadequate standards led to increased access to easy credit by high risk clients with insufficient savings and income. As interest rates rose, property prices began to drop, while rising energy prices contributed to growing gaps between income and debt. The result of these developments translated to homes being worth less than outstanding mortgages, borrowers defaulted on loan payments, and financial institutions were left with undesirable assets, a state of affairs which brought the banking sector to the brink of collapse. This spilled across the globe, damaged economies, tempered demand conditions, and led major economies to bailout "too-big-to-fail" financial conglomerates.

The COVID-19 crisis, on the other hand, represented an exogenous shock to the international economy which led to a supply side shock as merchant activities were brought to a halt following government-imposed lockdowns and borders closures. With the unplanned shutdowns, international supply chains to Barbados were disrupted, and the pursuit of gainful employment, investment and core economic activities was destabilised. In the 2008 crisis, there was tempered but continued business activity. However, the COVID-19 crisis brought virtually all activities, with the exception of essential services, to a standstill.

FIGURE 4: CONTRIBUTION TO REAL GDP GROWTH



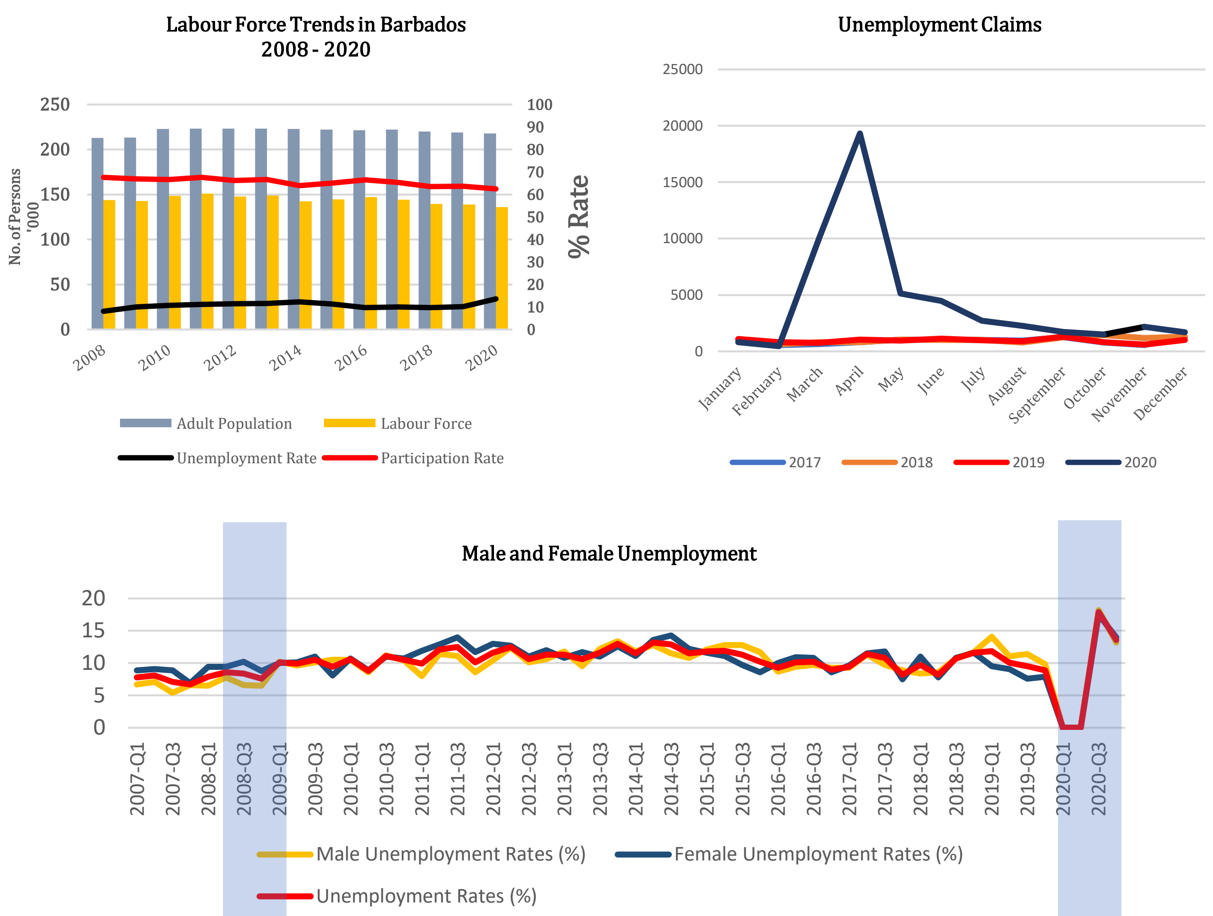
SOURCE: Barbados Statistical Department

In comparison to the 2008 global financial economic crisis, the pandemic-induced recession was much deeper and more widespread. In 2009, Barbados' GDP declined by 5.0 per cent, driven primarily by decreased output in the wholesale, construction, and accommodation and food services sectors which contributed 1.98 per cent, 1.6 per cent and 1.24 per cent, respectively. Similarly, in 2020 the brunt of the COVID-19 impact weighed heavily on the accommodation and food services sector which contributed approximately 10.43 per cent to economic growth. The spill-over effects of the downturn in the tourism sector were borne by the auxiliary sectors. The transport sector, in particular, was the second largest contributor to the decline in economic activity, followed by business services, with 1.13 and 0.99 per cent, respectively.

Unemployment and Inflation

Quite notably, the depth and protraction of the COVID-19 crisis resulted in a marked dislocation in employment, particularly within the tourism sector. Following national restrictions on movement, approximately 52,000 unemployment claims were received during 2020. These claims rose sharply at the end of the first quarter and continued to spiral during the second quarter of 2020, with a total of 38,987 claims compared to 3,856 for the same period in 2019. Unemployment insurance claims for 2020 were equivalent to three years' combined claims, with the NIS processing an average of 11,000 claims per annum from 2017 to 2019. Notwithstanding this, employment conditions began to improve during the last quarter of 2020.

FIGURE 5: LABOUR FORCE DYNAMICS

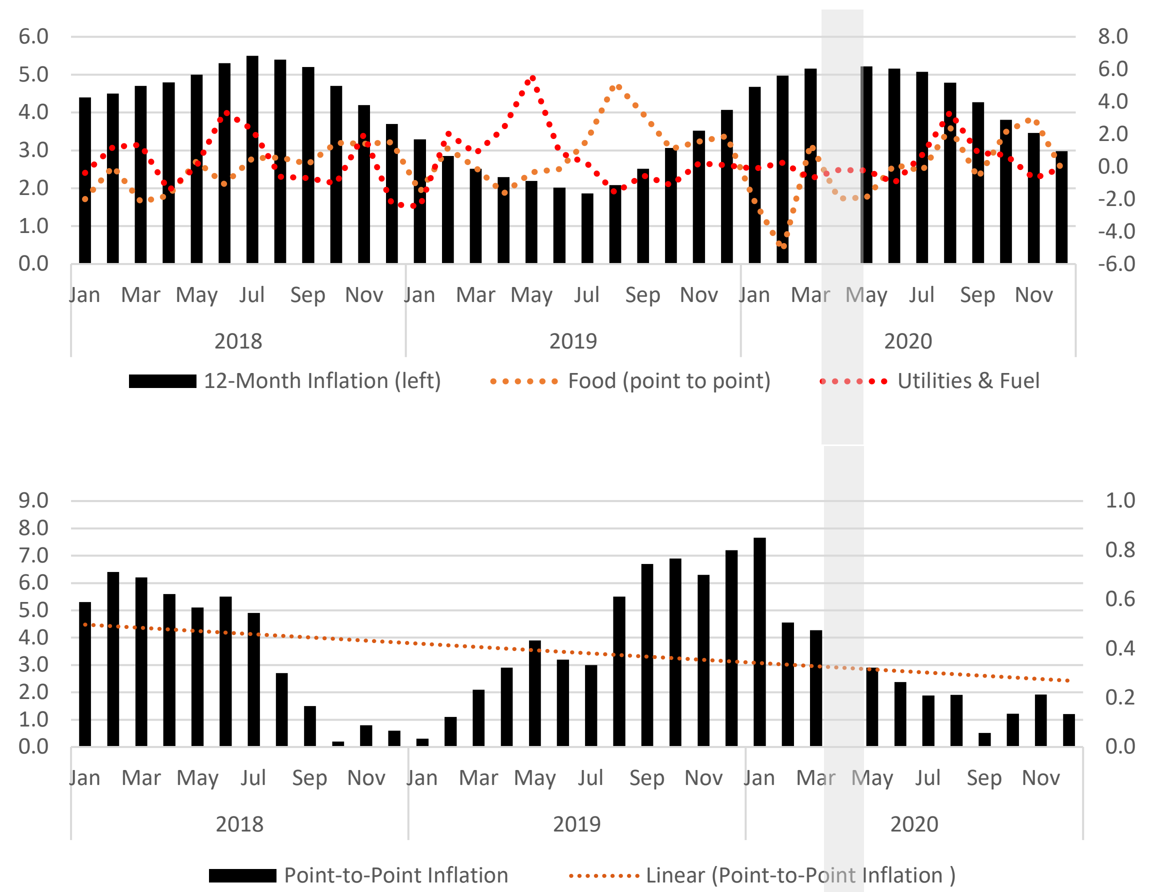


SOURCE: Barbados Statistical Service; National Insurance and Social Security. Shaded areas represent recessionary periods. Statistics on male and female unemployment were not collected during March, 2020 due to national restrictions on movement.

At the end of December, 2020, the rate of inflation declined to 2.9 per cent compared to 4.1 per cent the previous year. The slow down largely reflected the combined effect of suppressed demand conditions, falling international oil prices and lower fuel imports. Petroleum prices, in particular, began to plummet from as early as February, 2020, triggered by reactions to the pandemic which slowed oil demand worldwide, and led to a surge in oil inventories.

Following the reopening of the economy at the end of June, 2020, prices for food and non-alcoholic beverages increased in line with an uptick in demand for energy and utility services. However, after August, 2020, the continued slump in global fuel demand led to a further decline in imported oil prices, and resulted in further decreases in transportation and electricity costs for the rest of the year.

FIGURE 6: INFLATION 2018 - 2020



SOURCE: Barbados Statistical Service

On a point-to-point basis, prices moved from a high of 7.7 per cent in January to a low of 0.5 per cent at the end of September, 2020, with both price points driven by demand for restaurant and hotel services. With lower demand conditions over the last three quarters of the year, retailers resorted to heavily discounted prices in a bid to cope with the challenging economic circumstances.

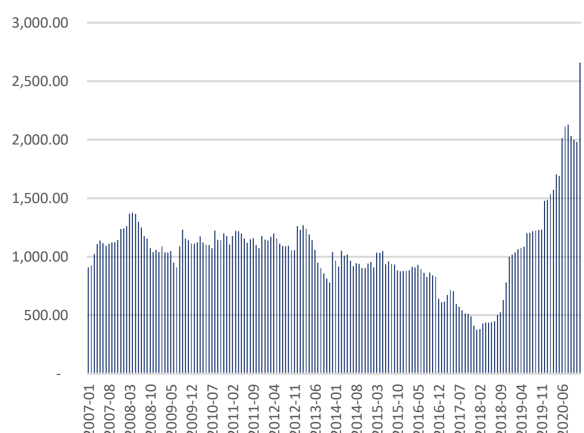
External Sector Developments

Gross international reserves stood at $2,660.7 million at the end of December, 2020 or 40.7 weeks of import cover which was well above the international benchmark of 12 weeks. This amount represented an increase of $1,179.6 million, and reflected financing support from international lending institutions for the execution of programmes to cushion the impact of reduced foreign exchange inflows from tourism and foreign direct investment. In addition, the inflows helped the Government implement strategic programmes to mitigate the impact of COVID-19 and offset the financing gap created by lower revenues and higher expenditures while simultaneously building reserve buffers. The reserves also benefitted from receipts from multinational corporations which are required to pay their corporate taxes with foreign exchange, as well as improved foreign exchange liquidity as a result of lower demand from the private sector.

Worldwide merchandise trade flows *(retained imports)* declined by a mere 0.8 per cent compared to a 12.1 per cent reduction in the demand for domestic exports, reflecting Barbados' dependence on global supply chains. This external trade dependence was even more acute considering that in the midst of the global pandemic, trade flows between Barbados and CARICOM member states registered overall declines while extra-regional supply markets registered marked upturns, particularly for imports.

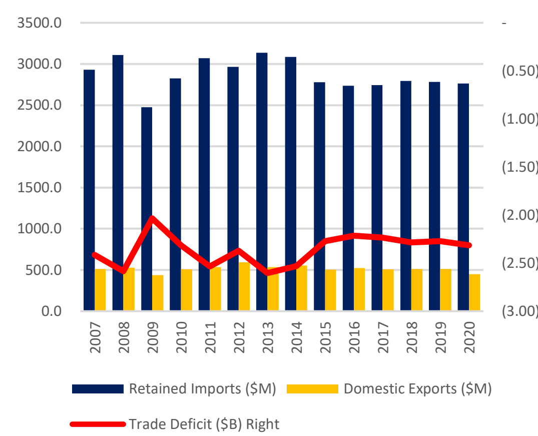
Imports to Barbados from the Region declined by 61.6 per cent while exports to CARICOM states fell by 58.5 per cent. However, imports from Latin-America, the United States and United Kingdom (UK) increased by 50.8, 10.5 and 10.0 per cent, respectively. Exports collectively increased by 8.8 per cent to Caribbean countries which are outside of the CARICOM bloc, followed by a 7.4 per cent increase to European countries *(exclusive of the UK and Germany),* and a 2.04 per cent increase to Latin America. Domestic exports to the UK also increased by 1.8 per cent.

FIGURE 7: ACCUMULATION OF GROSS INTERNATIONAL RESERVES



SOURCE: Central Bank of Barbados

FIGURE 8: VISIBLE TRADE BALANCE



SOURCE: Barbados Statistical Service

Notwithstanding the developments in merchandise trade, the component of world trade most directly affected by COVID-19 was trade in services due to the imposition of transport and travel restrictions and the closure of retail and hospitality establishments. Additionally, many sectors that relied on the movement of people to provide or consume services, such as tourism and education, were severely impacted. At the close of 2020, receipts from service-based activities declined by 48.4 per cent to $1,545.3 million, of which travel receipts declined by 54.8 per cent to $1,147.9 million. The current account gap widened to $620.5 million from the previous year's record of $256.3 million due in part to lower service-based activities.

FIscal Impact and Response to the Pandemic

The Government of Barbados, as part of its plan of action to combat the global pandemic, identified critical public health and capital programmes for immediate implementation. To this end, district polyclinics were retrofitted, critical emergency care facilities at the Queen Elizabeth Hospital were refurbished, new isolation centres were constructed, and essential medical supplies were procured to treat patients diagnosed with COVID-19.

Capital spending was further boosted with the renovation of schools and Government buildings to facilitate social distancing protocols. Special emphasis was also placed on the introduction of social programmes for displaced workers. In particular, the Household Survival Programme was capitalised to the tune of $10 million to support the most vulnerable families through the provision of $600 per month.

Deviations from Approved Budget Expenditure FY2020/21

Public expenditure increased by $308.9 million to $2,716.8 million due in part to stimulus, public health and social programmes, and debt service payments. Additional financing was made available primarily through international lending institutions, which provided approximately $225 million.

Moreover, only essential expenditures were approved in the first quarter of fiscal year 2020/21 and financial resources were redeployed from several programmes scheduled for 2020/21, including the Job Start Plus programme (which is geared towards providing young people with job attachments); the Barbados Youth Advance Corps residency phase; the 2020 Housing and Population Census which was deferred until 2021/22; the National Digital ID card project which was also deferred until 2021/22; and overseas travel.

Key measures geared primarily towards COVID-19 recovery and response included:

FIGURE 9: GOVERNMENT REVENUE

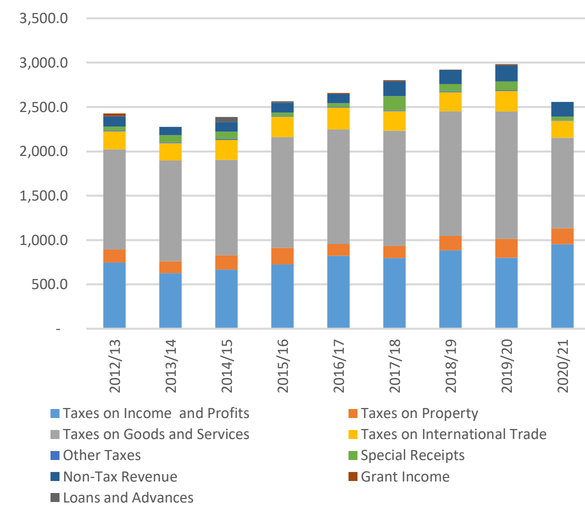


FIGURE 10: GOVERNMENT EXPENDITURE

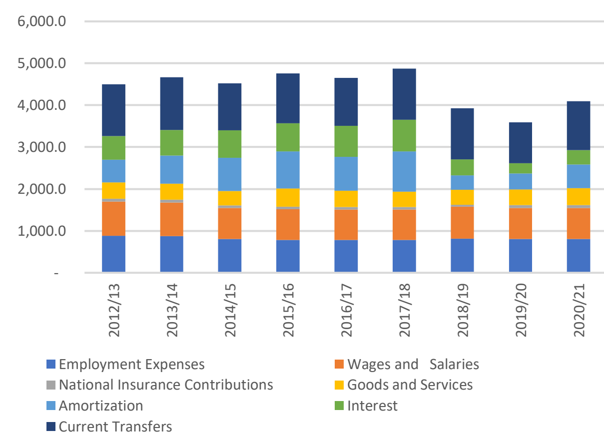
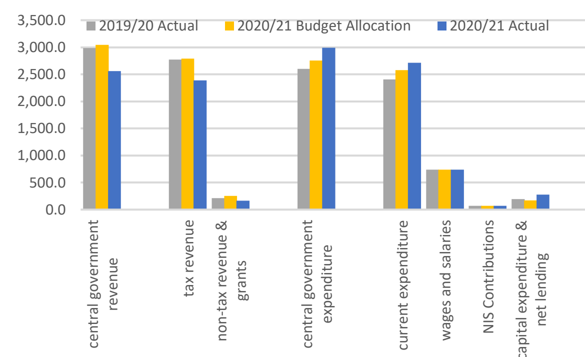


FIGURE 11: DEVIATIONS FROM BUDGETED EXPECTATIONS



SOURCE: Ministry of Finance, Economic Affairs, and Investment

- $10.0 million to the Welfare Department to meet the additional costs of grants to individuals.
- $10 million to the Household Survival Programme and $10 million to the Adopt Our Families Programme to provide cash transfers to vulnerable families affected by the economic fallout.
- $3.5 million to the National Assistance Board to establish an elderly care programme.
- $48.8 million for the administration of the COVID-19 programme administered by the QEH, including the procurement of vaccines.
- $10.7 million to the QEH to shore up its operations.
- $23.8 million to the Transport Board to meet its operating costs as a result of a reduction in ridership due to national restrictions on movement and the implementation of strict social distancing protocols on public service vehicles.
- $3.5 million to provide financial relief to vendors, operators of small shops and stalls, and other small and medium-sized businesses impacted by national lockdowns.
- $10.0 million to the Ministry of Education, Technological and Vocational Training to provide tablets and laptops to assist with online classes.

Revenue Impact

Total public revenue decreased from $2,984.2 million to $2,563.3 million, largely as a result of restrictions on business activities as part of the national pandemic response. Total tax revenue declined by $398.3 million or 14 per cent, with categories of taxes registering a reduction. A fall-off in Value Added Tax (VAT), personal income tax and excise tax receipts of approximately $260.6 million, $146.6 million and $96.7 million, respectively, was primarily responsible for reduced revenues. Non-tax revenue decreased by approximately $16.8 million, representing a 9.2 per cent decline.

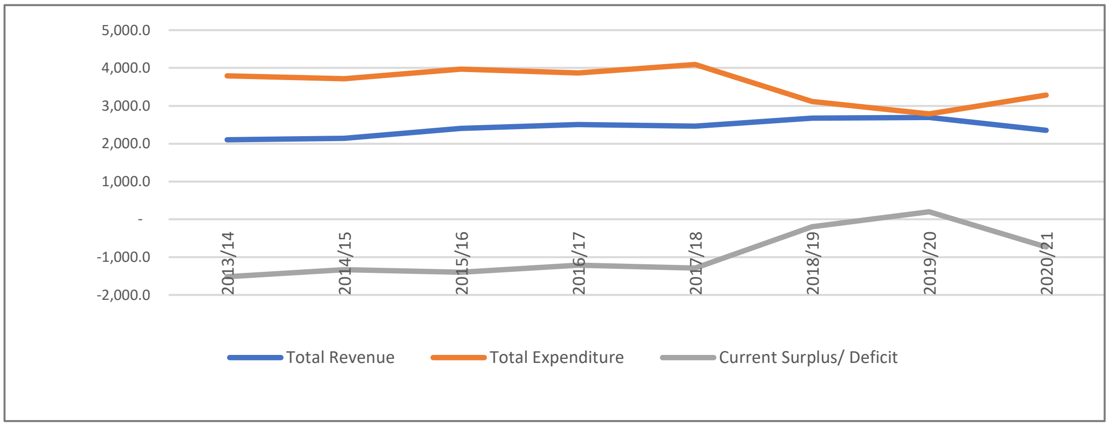
Conversely, corporate tax revenues during the review period increased by $303.9 million to $612.9 million primarily a result of receipts from the international business sector. In addition, there was an increase in corporate tax payments in June, 2020 as some entities failed to pre-pay their tax in March, 2020. However, the increase in corporate tax receipts was insufficient to offset the overall decline in tax revenues.

Fiscal Balance and Debt

Just prior to the national shutdown at the end of March, 2020, a primary fiscal balance of 6.0 of GDP per cent had been achieved. However, with depleting sources of fiscal revenues due to the pandemic, and with expenditures climbing as the Government embarked on response and recovery measures, a primary deficit of 1 per cent was reached by the end of FY2020/21.

The stock of gross public debt, which had declined from 148.4 per cent of GDP at the end of 2017 to 118 per cent in 2019, rose sharply to 142.3 per cent in 2020 primarily as a result of a 18% contraction in economic activities, while increased public expenditure geared towards mitigating the impact of the pandemic played a modest role. The Government remains committed to reducing the debt to 60 per cent of GDP over the medium term, and has reached an agreement with the IMF to extend the date for its achievement by two years to 2035/36.

FIGURE 12: FISCAL BALANCE



Source: Ministry of Finance, Econmic Affairs and Investment

V. PRINCIPAL SECTORS OF THE ECONOMY -A CLOSER LOOK

Accommodation and Food Services

The global tourism industry was one of the hardest hit sectors in 2020, as widespread restrictions tempered international travel. According to the United Nations World Tourism Organization (UNWTO), global tourism plunged by 74 per cent in 2020 in comparison to the previous year.

COVID-19 was deleterious to both the domestic and global cruise industry. Slight increases of 3.7 per cent and 1.6 per cent were recorded during the months of January and February, 2020 compared to 2019. However, a complete cessation of cruising occurred after March, 2020 as the US Centres for Disease Control issued a "no sail order" which led to cancellations of cruise ship arrivals. During the year, Barbados offered its Port as a safe harbour and repatriated stranded passengers and crew to their various countries.

Domestically, the accommodation and food services sector was severely impacted by a massive decline in long-stay arrivals to Barbados and the cessation of cruises from March, 2020. The performance of the sector was further impaired by the closure of accommodation facilities, high levels of unemployment, and the cancellation of tourism-related activities, including the Crop Over Festival.

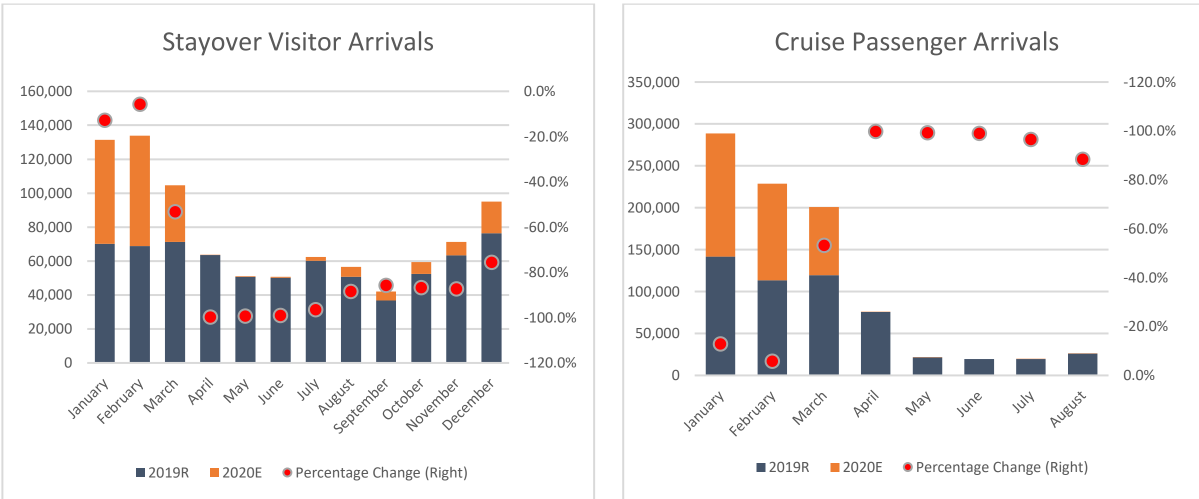
Overall, real value in the tourism sector declined to $409.1 million from $1,379.8 million in 2019, which was well below the average of $1,190.8 million recorded from 2006 to 2019. A sharp decline in stay-over tourist arrivals, which fell by 507,299 or 71 per cent to 207,339 in comparison to 2019, also contributed to the decline in tourism output. Similarly, cruise passenger arrivals during the period of January to August, 2020, declined by 193,364 to 343,771 when compared to the corresponding period in 2019.

As a result of decreased visitor arrivals to Barbados, hotel occupancy rates fell from 75.7 per cent in 2019 to 45.6 per cent in 2020. Employment within the sector declined to 10.6 thousand, a reduction of approximately five thousand (5,000) from the previous year.

Notwithstanding the general decline in the performance of the tourism sector, an increase in the registration of vacation rentals of Airbnb accommodations and villas was recorded over the period, with

994 properties (3,036 bedrooms) registered as at December 31, 2020 compared to 544 (1,738 bedrooms) at the end of 2019. This increase was attributed to increased interest in private properties as quarantine facilities and the requirement that Airbnb accommodations be registered for the purpose of remittance of tourism levies to the Barbados Revenue Authority (BRA).

FIGURE 13: TOURISM DYNAMICS



SOURCE: Barbados Tourism Marketing Inc.

SOURCE: Barbados Tourism Marketing Inc.

Tourism Source Markets

Declines were registered in all major tourism source markets for stay-over arrivals. Barbados' largest source market, the United Kingdom, recorded a significant decline of 66.4 per cent in arrivals, with a total of 79,960 visitors during 2020, compared to 237,926 in 2019. The USA, the second largest market, also registered a marked decline of 76.1 per cent, with only 52,488 arrivals compared to 219,603 in 2019. Visitors from Canada totaled 31,225 in 2020 compared to 85,868 in 2019, which represented a fall-off of 54, 643 visitors or 63.6 per cent.

The European market declined by 66.4 per cent to 12,804, with 25,340 fewer visitors compared to 2019. Overall, Regional visitors declined by 79.1 per cent in 2020, with reductions in arrivals from Trinidad and Tobago declining by 82.6 per cent, and Other CARICOM countries declining by 77. 6 per cent to 5,925 and 17,843, respectively.

Despite the downturn in arrivals, the number of staycations increased as Barbadians and residents seized the opportunity to vacation at home and take advantage of discounted hotel rates. Occupancy rates also increased marginally during the last quarter of 2020, as several hotels served as quarantine facilities and airlift improved.

The Government's Pandemic Response to the Tourism Sector

In response to steep declines in demand from traditional tourist markets, the Government launched the Barbados Welcome Stamp Programme which allowed non-nationals to work remotely in Barbados for up to one year. During the period from June to December, 2020, 2,156 applications were received from citizens of 96 countries. The applicants comprised 718 families and 1,438 individuals. Of the 2,156 applications received, 1,585 were approved. Revenue generated from the approved applications was approximately $2.6 million.

In addition, the Barbados Employment and Sustainable Transformation (BEST) programme was introduced to facilitate the transformation of the tourism and direct tourism-related service sectors, reduce unemployment, and support business continuity. The $ $300 million Programme was launched in October, 2020. Participating companies received grants or provided preferential shares as a condition for financing. By the end of 2020, thirty-two (32) applications were approved and $5,581,636 was disbursed under the employee re-engagement component of the BEST programme, and this facilitated the continued employment of 1,663 workers.

Agriculture

Despite higher than average cotton production, output for a majority of the sub-sectors declined in 2020 as the agriculture sector was adversely affected by drought-like conditions and reduced demand for local produce from hotels and restaurants due to COVID-19. The agriculture and fishing sectors are estimated to have contracted by 5.7 per cent, with real value output falling from $115.5 million in 2019 to $108.9 million in 2020. The adoption of counteractive measures to address the pandemic also delayed the implementation of several Government initiatives geared towards boosting local production, including a policy framework for the medicinal cannabis industry and the Farmers' Empowerment and Enfranchisement Drive (FEED) programme.

As a proactive measure to mitigate potential disruptions in traditional global supply chains, the Government developed a National Emergency Food Production Plan to mobilise local production to facilitate food import replacement in the event that there were challenges in accessing imports. This initiative, which was coordinated through the Barbados Agricultural Development and Marketing Corporation, provided farmers with assistance in procuring agricultural inputs and accessing irrigation and cultivation services.

TABLE 4 - LOCAL AGRICULTURAL PRODUCTION (MILLION KGS) 2016 - 2020

Year	2016	2017	2018	2019	2020	% Change over 2019
Sugar ('000 tonnes)	7.0	10.1	11.7	7.9	6.7	-15.3%
Root Crop Production	4.5	2.4	3.4	3.7	3.6	-3.1%
Vegetable Production	2.6	3.7	5.4	5.3	5.2	-0.6%
Livestock and Dairy Production	26.9	26.9	27.9	28.1	22.7	-19.4%
	2015/2016	**2016/2017**	**2017/2018**	**2018/2019**	**2019/2020**	
Cotton Lint ('000 kgs)	13.7	5.8	1.7	2.2	5.5	149.5%

SOURCE: Agricultural Planning Unit, Ministry of Agriculture and Food Security

Sugar

As with the previous season, the 2020 sugar crop was negatively impacted by a lack of rain fall and the occurrence of the ratoon stunting disease. Consequently, while the tonnes of cane harvested increased by approximately 8.0 per cent to 91,388.91 tonnes, the 2020 harvest yielded 6,658.1 tonnes of sugar, a decline of 15.3 per cent in comparison to the previous year.

The drought conditions experienced in 2020 as well as a delay in the harvesting may have contributed to an increase in the cane to sugar conversion rate, where 12.9 tonnes of canes were required to produce a tonne of sugar compared to 10.9 tonnes of canes in 2019. In contrast, molasses production stood at 5,049.6 tonnes in 2020, an increase of 15 per cent over 2019 levels.

There were no exports of sugar to the EU in 2020 as a result of a policy to exit the bulk sugar market. This decision and the closure of the Barbados Sugar Terminal in 2020 form part of the Government's policy to refocus the industry to meet local demand for sugar and expand the production of specialty sugars for the domestic and international markets.

Non- Sugar Agriculture

Cotton

During the 2019/2020 cotton season, 124.6 hectares of cotton were planted compared to 34.2 in 2018/2019. This sizable expansion in production and the subsequent increase in yields may be attributed to a strategic initiative to increase the overtime rates for cotton growers and the adoption of improved management practices over the period. The 2020 harvest yielded 14,866 kilogrammes of seed cotton which was delivered to the cotton ginnery, which represented an increase of 123.9 per cent over the previous harvest. The seed cotton harvested produced 24 running bales from 4,454.6 kilogrammes of lint, an increase of 14 and 3,268.1, respectively, over the previous year.

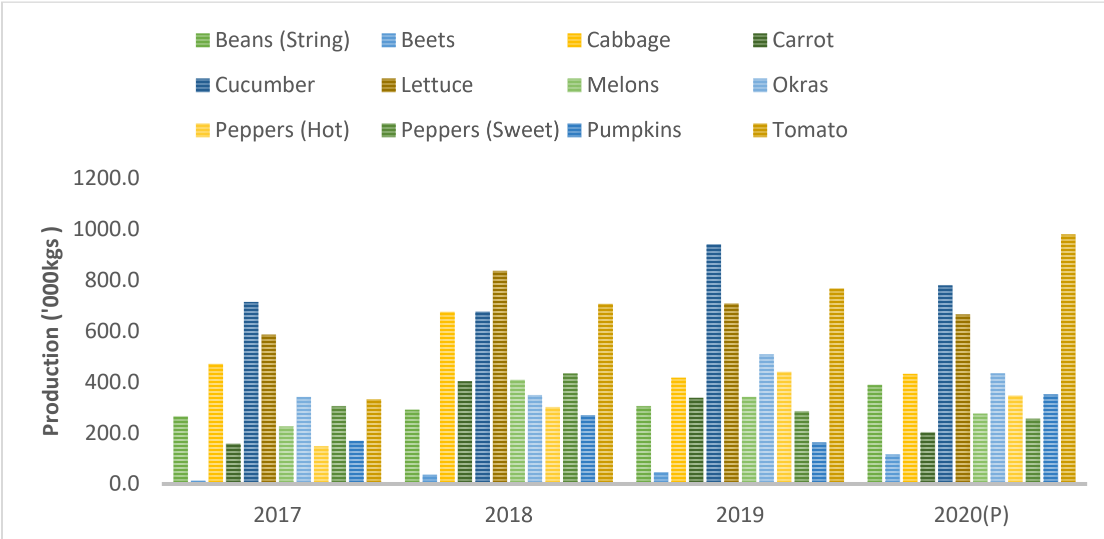
Vegetable Production and Root Crop Production

There was a modest decline in vegetable and root crop production in 2020 as the industry adjusted to the falloff in demand for local produce. Vegetable crop production fell by less than 1 per cent from approximately 5.3 million kilograms in 2019 to 5.2 million kilograms in 2020, with declines recorded for most commodities over the period. However, a few crops registered significant increases in production.

Notably, the production of string beans grew by 27.5 per cent (or 83.6 thousand kilogrammes) to 388.2 thousand kilogrammes, while tomato production expanded by 27.6 per cent (or 211.9 thousand kilogrammes) to approximately 1 million kilogrammes in 2020. These increases may be attributed to the initial successes of the FEED Programme and the implementation of the National Emergency Food Production Plan which was targeted towards such crops.

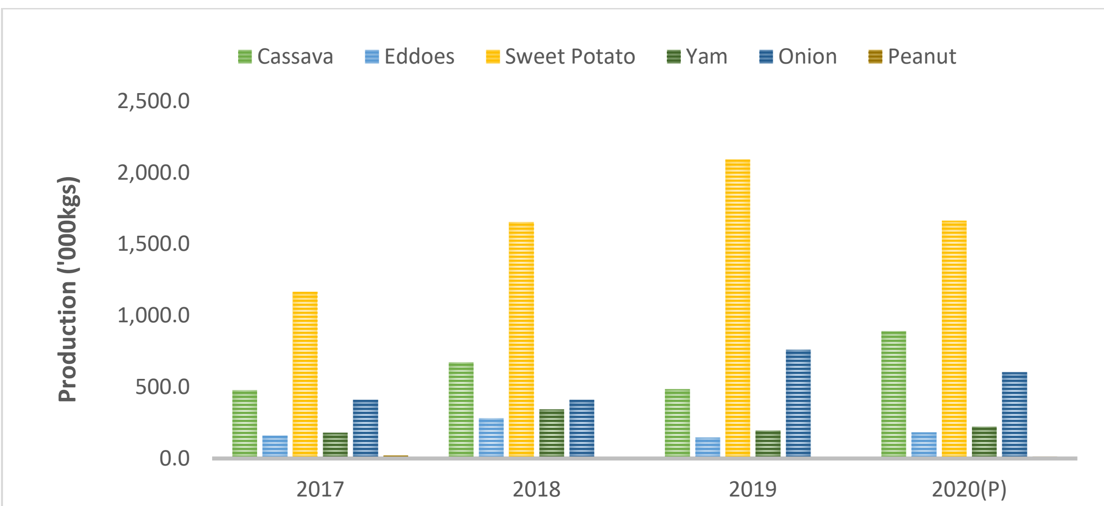
Overall, root crop output fell to an estimated 3.6 million kilogrammes in 2020 from 3.7 million kilogrammes in 2019. This decline was mainly driven by a fall-off in production in sweet potato (20 per cent or 428.4 thousand kilogrammes) which stood at 1.7 million kilogrammes in 2020, returning to levels recorded in the years prior to 2019. Onion production also declined by 20.7 per cent (or 157.8 thousand kilogrammes), as the 2020 harvest, which stood at 604.3 thousand kilogrammes, was impacted by drought conditions in the previous year.

FIGURE 14: VEGETABLE PRODUCTION ('000KGS) 2017-2020



SOURCE: Agricultural Planning Unit, Ministry of Agriculture and Food Security

FIGURE 15: ROOT CROP PRODUCTION ('000KGS) 2017-2020



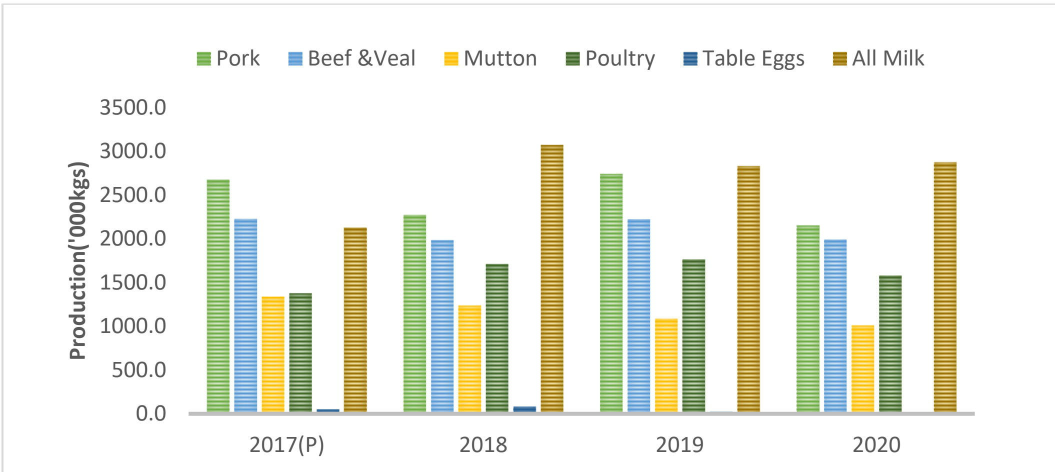
SOURCE: Agricultural Planning Unit, Ministry of Agriculture and Food Security

Livestock and Dairy Production

In 2020, the livestock sub-sector contracted by 19.4 per cent, with output recorded at 22.7 million kilogrammes compared to 28.1 million the previous year. This decline may be attributed to reduced consumer demand as the pandemic diminished activities in the accommodation and food services sector, a key market for local livestock products. Poultry production was particularly impacted, with turkey production falling by 64.4 per cent, or 256.1 thousand kilogrammes, to 141.5 thousand kilogrammes in 2020. Chicken, the largest commodity, accounted for approximately 52.7 per cent of total domestic livestock output at 11.9 million kilogrammes, a decline of 26.3 per cent compared to 16.2 million kilogrammes recorded in 2019.

Milk production fell by 14.6 per cent in 2020 to 4.0 million kilogrammes as the dairy industry continued to be hindered by capacity constraints related to the size of the local herd, and drought conditions which diminished feed quality. Over the period, efforts were made to address the challenges facing the industry with the importation of 140 pregnant cows to improve the capacity and quality of the local herd.

FIGURE 16: LIVESTOCK AND DAIRY PRODUCTS PRODUCTION ('000 KGS) 2017-2020



SOURCE: Agricultural Planning Unit, Ministry of Agriculture and Food Security

Construction

Despite the negative impact of COVID-19 on the overall economy, the construction sector was one of the few areas that realized modest growth in output (1.1 per cent) in 2020. The performance of the sector was likely bolstered by an uptick in the construction of private dwellings and the refurbishment/construction of commercial enterprises over the period. Additionally, the advancement of several public infrastructure projects likely contributed to the increase in output within the sector.

The construction of private dwelling units increased from 1,110 in 2019 to 1,417 in 2020, with the majority occurring in urbans and sub-urban areas, including St. Michael (425), Christ Church (286) and St. James (138). Notably, 190 private dwelling units were constructed in St. Philip, as an expansion of residential housing in the parish continued. There were also increases in the refurbishments or completion of commercial properties in 2020, with 1,340 recorded, or 245 more than in the previous year.

TABLE 5 - NO. OF PRIVATE DWELLING UNITS COMPLETIONS AND COMMERCIAL PROPERTY COMPLETIONS /REFURBISHMENTS BY PARISH IN 2019 AND 2020

Year	2019		2020	
Parish	No. of Private Dwelling Completions[1]	No. of Commercial Property Completions or Refurbishments[2]	No. of Private Dwelling Completions[1]	No. of Commercial Property Completions or Refurbishments[2]
Christ Church	203	296	286	209
St. Andrew	29	12	26	11
St. George	76	74	109	88
St. James	101	133	138	381
St. John	51	19	49	16
St. Joseph	23	8	24	22
St. Lucy	49	15	47	28
St. Michael	309	327	425	324
St. Peter	57	42	64	56
St. Philip	160	111	190	139
St. Thomas	52	58	59	66
Total	**1,110**	**1,095**	**1,417**	**1,340**

SOURCE: Government Electrical Engineering Department
NB: 1- Estimates are based on no. of residential inspections conducted by Government Electrical Engineering Department
2- Estimates are based on no. of Commercial inspections conducted by Government Electrical Engineering Department

Public Housing Programme

In 2020, the Government introduced the Home Ownership Providing Energy (HOPE) Programme, to support existing efforts to meet the local demand for affordable housing. This initiative is expected to include the construction of 1,000 affordable, energy-efficient, solar-powered homes. Under the existing public housing programme, the Ministry of Lands and Maintenance facilitated the ongoing construction of the Airport Relocation Project, while construction commenced on five (5) houses as part of the White Hill, St. Andrew to Farmers, St. Thomas Phase II relocation programme.

Public Capital Works Programme

Road Works

Several initiatives were undertaken to expand and rehabilitate the current road network in 2020. As at December 31, 2020, 26 roads were completed at an approximate cost of $28.3 million.

The Ministry of Transport, Works and Water Resources continued its asphalt reinforcement/patching programme from January to March, 2020, with 364 roads patched compared to 235 during the same period in 2019. However, in April, 2020, only 7 roads were completed due to delays associated with the COVID-19 pandemic, and this represented a significant fall-off from the 131 roads patched in the corresponding period in 2019. Despite delays, by the end of September, 2020, 973 roads were patched, representing an increase of 122 roads from the comparable period in 2019. This increase was due to repairs to damaged roads as a result of the unusually heavy rainfall recorded during the 2020 hurricane season.

TABLE 6 - ROADS COMPLETED BY THE END OF DECEMBER 2020

No.	Road	Description	Start Date	Finish Date	Expenditure to Date
		Highway Construction and Maintenance Services			
1	Fairfield Road, St. Michael	Resurface of a 680 long x4.87 wide road	2/3/2020	NA	$152,174.49
2	Wildey/Collymore Rock, St. Michael	Resurface of a 2.08 km long highway	NA	NA	$21,601,776.95
3	Salters Tenantry Phase 2, St. George	Construction of a 332m long x4.87m wide road	NA	NA	$98,379.52
4	Green Hill from Gibson Polyclinic to Codrington Junction, St. Michael	Mill and paved 1.65 km long x 7km wide highway	1/22/2020	3/26/2020	$932,744.08
5	Two Mile Hill, St. Michael	Mill and paved 1.65 km long x 7km wide highway	2/26/2020	2/28/2020	$400,648.52
6	Dayrell's Road/ Highway 1 Junction, Christ Church	Mill and pave a 300m long x 4.87 wide road	6/15/2020	9/5/2020	$4,042.00
7	St. Thomas Church to Mangrove Junction, St. Thomas	Mill and pave 1.1 km long x 7.3m wide highway	3/23/2020	9/25/2020	$1,077,212.50
8	The Whim to Richmond hill, St. Peter	Mill and pave 535m long x 7.3m wide highway	7/27/2020	7/30/2020	$434,063.08
9	Mile & a Quarter to the Whim, St. Peter	Mill and pave 1.5 km long x 7.3m wide highway	NA	NA	NA
10	Rendezvous Hill/Forde's Road Junction, Christ Church	Construction of a right turning lane into Forde's Road	NA	9/17/2020	$993,960.00
11	Four Roads to Toods, St. John		NA	11/15/2020	$465,471.54
12	Howells Cross Roads to James A Tudor Roundabout, St. Michael	Mill and pave 2.1km long highway	10/7/2020		$835,064.95
13	Cherry Grove, St. John	paved 885m longx4.87m wide road	11/18/2020	11/25/2020	$259,610.36
14	Murray land, St. Michael	Mill and pave a 240 m long x 4.87 wide road	10/2/2020	10/3/2020	$74,118.52
15	Oxley Road, St. Michael	Mill and pave a 145m long x 4.87 wide road	10/2/2020	10/8/2020	$39,022.04
16	Seclusion Gardens, St. Michael	Mill and pave a 370m long x4.87 wide road	10/9/2020	10/10/2020	$143,108.16
17	Savannah Road, St. Michael	Mill and pave a 500m long x 4.87 wide road	11/21/2020	11/22/2020	NA
18	Tambarind Avenue, St. Michael	Mill and pave a 75m long x 4.87 wide road	11/28/2020	11/28/2020	NA
19	Macaroni Village, St. George	Paved 500m long x 4.87 m wide road	11/8/2020	11/22/2020	$131,636.12
		Tenantry Roads			
20	Boarded hall Tenantry Road 1&2	Mill and paved 678 m long x 4.8m wide road	11/22/2020	11/28/2019	$227,494.15
21	Upper Weston, No. 1, St. James		1/27/2020	2/3/2020	$65,291.46
22	Upper Weston, No. 2, St. James		1/27/2020	2/3/2020	$37,209.24
23	Kings Village Road, St. James		8/26/2019	2/17/2020	$40,599.81
		Scotland District Special Works			
24	Fruitful Hill, St. Joseph		7/1/2020	7/15/2020	$134,253.73
25	Redman Road, St. Andrew		7/1/2020	7/15/2020	$84,378.45
26	Parks Road, St. Joseph		NA	NA	$94,934.67

SOURCE: Ministry of Transport, Works and Water Resources
NA – Not available

Manufacturing

Like many other sectors of the economy, the performance of the manufacturing sector was negatively impacted by the pandemic which generally led to diminished demand for goods and services over the period. In particular, the resulting stagnation in the majority of tourism-related operations contributed to a fall in revenue for the manufacturing sector. Consequently, real GDP in the manufacturing sector fell to $442.2 million in 2020, representing a decline of 6.8 per cent over the previous year.

Production in the manufacturing sector, as measured by the Index of Industrial Production(IIP), contracted to 48.8 points compared to 54.7 points in 2019, and fell below the average of 61.7 points recorded from 2008 to 2019. However, the fall in output in 2020 was not as steep as the decline observed in 2009 which was associated with the 2008 recession, when the IIP fell from 78.5 points to 68.6 points within a one-year period. Notably, in 2020 declines were recorded in the majority of the sub-sectors in the IIP, including in the categories of "Electronic Components" (28.1 per cent), "Non-metallic Mineral Products" (43.4 per cent), and "Beverages and Tobacco" (13.73 per cent). In contrast, there was a slight uptick registered in the areas of "Food" (0.2 per cent), "Wooden Furniture" (3.8 per cent), and "Chemicals"(0.7 per cent).

TABLE 7- SELECTED DOMESTIC EXPORTS JANUARY - DECEMBER 2019 AND 2020

Selected Exports	$ 2019	$ 2020P	% Change
Biscuits	20,039,392	19,720,739	-1.6%
Soaps & Detergents	403,593	328,589	-18.6%
Hand Tools	1,053,756	43,804	-95.8%
Cement	49,816,795	31,041,474	-37.7%
Disinfectants, Insecticides, etc.	15,867,947	41,487,254	161.5%
Electronic Components	13,286,788	12,183,743	-8.3%
Flour	6,361,639	5,123,141	-19.5%
Furniture and Parts thereof	851,843	690,834	-18.9%
Garments	221,526	121,489	-45.2%
Margarine/Lard	20,112,641	21,055,811	4.7%
Medicines & Pharmaceuticals	32,602,104	20,232,899	-37.9%
Metal Cans (cap. < 50 L)	8,689,593	9,086,658	4.6%
Non-alcoholic Beverages	941,855	4,298,356	356.4%
Other Foods & Beverages	31,399,450	24,355,679	-22.4%
Paints and Varnishes	15,517,466	9,321,997	-39.9%
Paper Products	6,702,756	5,572,114	-16.9%
Petroleum	30,201,248	18,584,246	-38.5%
Printed Material	25,013,536	28,108,753	12.4%
Spices and Condiments	569,399	520,080	-8.7%
Sugar	557,992	920,792	65.0%
Rum	76,796,799	75,943,178	-1.1%
Windows and Doors	7,186,096	7,539,387	4.9%
Total Selected Exports	**364,194,214**	**336,281,017**	**-7.7%**
Total Domestic Exports	**511,439,722**	**449,445,489**	**-12.1%**
Selected Exports as % of Domestic Exports	**71.2%**	**74.8%**	**5.1%**

SOURCE: Barbados Statistical Service
P - Provisional
R - Revised

Despite the general decline in demand, there was a determined effort by local producers to engage the excess capacity in their plants towards the production of items required for the pandemic. As a result, the production of hand sanitizers and personal protective equipment, including face masks, increased substantially. Additionally, increases were recorded for several categories of domestic exports, including Non-Alcoholic Beverages (356.4 per cent), Disinfectants, Insecticides, etc. (161.5 per cent), and Sugar (65.0 per cent).

Several services that support manufacturing activities also expanded while COVID-19 protocols gave new impetus to digital solutions for acquiring goods and services as well as several options for personal delivery services. Online banking options also increased and helped facilitate trade.

Oil and Gas

During 2020, fuel imports declined by 32 per cent to $348.8 million due in large measure to decreases in international petroleum prices and reduced domestic demand for transportation and electricity as a consequence of COVID-19. The pandemic led to a decline in the consumption of key oil and gas sub-sectors such as gasoline (16 per cent), fuel oil (8 per cent), kerosene (4 per cent), natural gas (10.0 per cent), electricity (5.3 per cent) and LPG (3 per cent). Conversely, diesel consumption increased by 0.13 per cent.

Efforts to transition Barbados' economy away from fossil fuels and towards 100 per cent renewable energy sources by 2030 continued during 2020 with the installation of 9 MW of distributive renewable energy to the national grid. The FTC also issued Feed-in-Tariffs for wind and solar systems between 1 MW and 10 MW to facilitate further investments in renewable energy technologies. In addition, legislation was drafted for the elimination of inefficient lighting. A policy framework was also established for the procurement of electric, hybrid and other clean energy vehicles by public agencies.

Transport

In 2020, ridership at the Barbados Transport Board declined by 9 per cent to 6.3 million in comparison to 2019 as a result of national restrictions on movement, school and business closures, and COVID-19 protocols mandating a maximum seating capacity of 60 per cent on public service vehicles. At the same time, revenues for 2020/21 declined by 48 per cent to $12.6 million.

During 2020, thirty-five (35) electric buses were procured for use by the Barbados Transport Board as part of the Government's efforts to become carbon neutral by 2030.

Financial Sector Performance

Loans and Commercial Bank Sectoral Credit

The total average loans and advances in commercial banks totaled $6 billion at the end of December, 2020. The value of loans oscillated throughout the year, but more notably in the second and third quarter when the pandemic led to a national lockdown.

Moratoria on loan and mortgage payments were established by commercial banks for up to six months to assist those affected by the pandemic. The terms of loans were adjusted to reduce monthly payments and customers were given additional credit. This effort was made to minimize the risks of default by allowing those who were unemployed or under-employed as well as companies and small businesses which were impacted by the pandemic to defer payments.

TABLE 8 - TOTAL MORTGAGES $ '000

Year	Loans to Residents	Loans to Non-Residents	Total Mortgage Loans
2012	2,427,562	37,103	2,464,665
2013	2,507,563	36,191	2,543,754
2014	1,830,457	37,130	1,867,587
2015	2,564,872	34,946	2,599,818
2016	2,553,983	32,007	2,585,990
2017	2,615,120	30,270	2,645,390
2018	2,866,974	39,223	2,906,197
2019	2,877,745	37,254	2,914,999
2020	2,860,895	41,724	2,902,619

SOURCE: Central Bank of Barbados

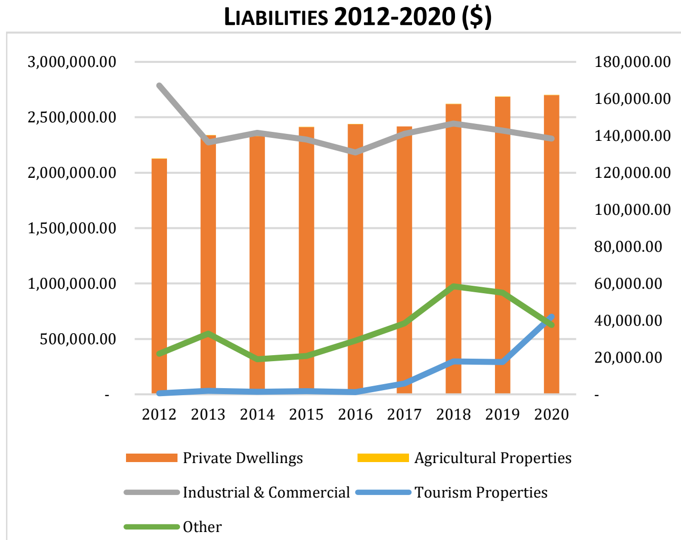
Despite these measures, the non-performing loans ratio rose to 7.2 per cent, while profits fell due to declining credit demand. However, commercial banks remained very liquid, and did not have to solicit the Central Bank's support when the discount rate and securities ratio were reduced. The capital adequacy ratio rebounded to 15.8 per cent in 2020, from 13.5 per cent in 2019, which highlights stability within the banking sector.

The local mortgage market remained relatively stable, with total average loans totaling $2.9 billion, up by $17.8 million in 2019. The average mortgage rate fell slightly to 4.98 per cent down from 5.1 per cent in 2019. Private dwellings contributed to 92.5 per cent of average mortgages or $2.7 billion in 2020. Average mortgages on tourism-related properties rose by 140.3 per cent to $42 million in 2020, up from $17.5 million in 2019 as financing was sought to improve those properties. Total mortgages stood at $2.9 billion at December, 2020, falling by $12 million compared to the same period in 2019. Loans to residents fell by $16.8 million, while loans to non-residents rose by $4.5 million.

Commercial Banks: Deposits and Savings

Total deposits in the commercial banking sector totaled $10.5 billion, up from $9.9 billion at the end of 2019. The increased deposits were mainly attributed to increases in liquid demand deposits, which accounted for half of total deposits at $5.3 billion. Savings deposits stood at $4.7 billion while time deposits were recorded at $416 million. This increase in liquidity preferences may have been the result of low interest rates on fixed deposits and consumers' preference for assets that could be readily converted into cash in the event of unemployment or a serious downturn in the economy.

FIGURE 17: COMMERCIAL BANKS' AVERAGE TOTAL DEPOSITS LIABILITIES 2012-2020 ($)

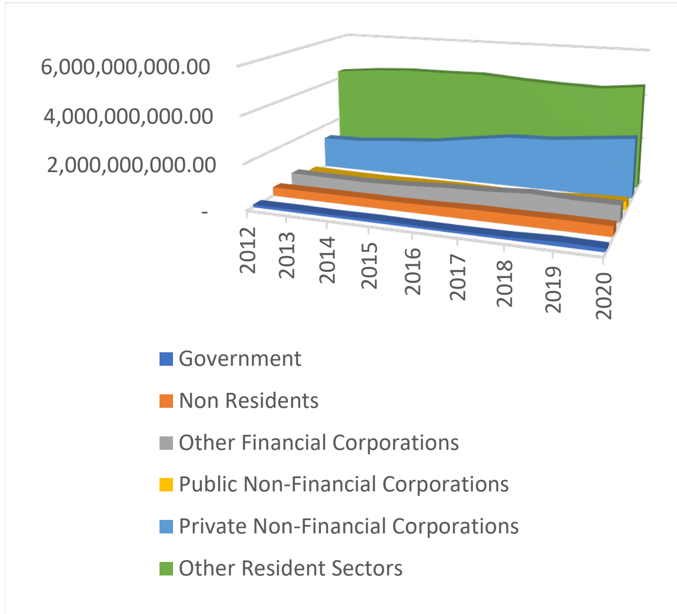


SOURCE: Central Bank of Barbados

Average deposit liabilities grew moderately by 4.4 per cent in 2020 to $8.9 billion, up from $8.5 billion in 2019. The other residential sector amassed 51 per cent share or $4.6 billion, while the private non-financial corporations sector followed with 30 per cent or $2.6 billion. The other sectors totaled less than 10 per cent. Total national currency deposits accounted for 93 per cent of deposits in 2020, as it has since 2018.

In the private sector, average deposit liabilities of non-financial institutions nearly doubled to $2.05 billion in 2020, up from $1.14 billion in 2012. The lack of investment opportunities caused by the uncertainty brought about by the pandemic may have resulted in higher deposits within the sector. The real estate, rent and other business sector held a majority of these deposits, amassing $949.6 million, followed by distribution at $600.5 million, and manufacturing at $271.3 million. On average, all sectors experienced considerable growth in 2020, with the exception of manufacturing which decreased by $15 million in comparison to 2019.

FIGURE 18: COMMERCIAL BANKS' AVERAGE DEPOSIT LIABILITIES TO PRIVATE NON-FINANCIAL CORPORATION 2012-2020 (BILLIONS $)



SOURCE: Central Bank of Barbados

Non-Bank Financial Institutions Credit Unions

The credit union movement continued to grow, with total assets reaching $2.8 billion at the end of the 2020 due primarily to holdings in national currency and transferable deposits and foreign currency and transferable deposits rising by 35 per cent and 7.9 per cent, respectively. The steady increase in credit union deposits was due to an increase in new membership. Membership grew by 2.8 per cent to an estimated 222,000 members compared to the previous year.

Borrowing in the loan market remained constant for the first two months of the year, but declined as the virus began to cause disruptions in commercial activities due to social distancing protocols and layoffs. By September, 2020, the value of loans began to increase, but still fell short of pre-March, 2020 levels. Non-performing loans stood at 13.1 per cent of total loans at December, 2020, which represented a sharp increase in comparison to average for the previous five (5) years. The spike in unemployment and the recession caused by the pandemic were the main reasons for the increase in non-performing loans, which totaled $99.7 million.

Average credit union liabilities totaled $2.74 billion in 2020, rising by approximately 7 per cent from the previous year. For 2020, transferable deposits accounted for 58.3 per cent of total liabilities, up from 56.8 per cent in 2019.

Securities Market Performance

Overall market performance for securities listed and traded across the board of the Barbados Stock Exchange (BSE) in 2020 showed declines, as total trading volume and value decreased by 97 per cent and 98 per cent, respectively. The Regular and Put Through Markets both recorded declines, while there was no activity on the Block Trade or Innovation and Growth Markets. The International Securities Market (ISM) did not record any activity. However, two (2) new securities were listed on its board. The Bond Market recorded increased activity as bondholders showed renewed enthusiasm and confidence following the restructuring of Government of Barbados (GOB) fixed income securities.

One security was delisted from the board of the BSE during 2020. On October 30, 2020, all issued and outstanding shares in Cable and Wireless (Barbados) Limited were delisted.

At December 31, 2020, all market indices recorded decreases when compared to their corresponding closing positions in 2019. The Local, Cross-Listed and Composite Indices recorded decreases of 17 per cent, 33 per cent and 18 per cent, respectively, while the year-on-year market capitalization recorded declines of 24 per cent, 33 per cent and 24 per cent, respectively.

There was a 73 per cent decline in the total number of trades, with 514 trades in 2020 as compared to 1,893 trades in 2019.

VI. FINANCING RESILIENCE IN THE FACE OF STRUCTURAL VULNERABILITIES

Barbados and other small island states face complex challenges and vulnerabilities due to a plethora of issues, including remoteness; limited natural resources; barriers to global economic integration; over-dependence on imports, particularly food and energy; insufficient economic diversification; and a high sovereign debt level. Moreover, while small island states contribute less than 1.0 per cent to global greenhouse gas emissions, they are disproportionately impacted by the effects of climate change including, rising sea-levels, and severe and extreme weather events. In this regard, the IMF estimates that small states lose 2.5% of GDP on average from natural disasters annually. Vulnerability to external shocks due to a heavy dependence on foreign direct investment and tourism further compound these challenges.

Debt-service costs account for a high proportion of public expenditure in many Small Island Developing States (SIDS). However, while low-income SIDS are able to access international concessional financing on the basis of their inherent structural vulnerabilities[1], as an upper middle-income country, Barbados is generally deemed ineligible for similar financing due to its comparatively high levels of gross national income. It has been estimated that non-Least Developed Countries (LDC) SIDS would save an average of approximately 1.5 per cent of their GDP annually if they received the same average concessional interest rates (0.75 per cent) for long-term external public debt and publicly-guaranteed debt as LDCs.[2]

Gross national income has been widely acknowledged as an inadequate indicator of small states' development since many are more vulnerable to exogenous shocks than their high income levels alone would appear to suggest. Many small countries have been able to attain high rates of economic growth

[1] The World Bank (2018) defines structural vulnerability as "*the risk that a country's development will be hampered by natural or external shocks*".

[2] Jacob Assa and Riad Meddeb (2021). Towards a Multidimensional Vulnerability Index. UNDP Discussion Paper. February, 2021. https://www.undp.org/publications/towards-multidimensional-vulnerability-index

and a high GDP per capita despite their small size and susceptibility to external shocks, a situation that is referred to as the "Singapore Paradox".

Barbados' vulnerability to external shocks became increasingly evident as the economy experienced sluggish growth in the aftermath of the 2007/2008 global financial crisis. By 2017, Barbados' fiscal deficit had become unsustainable, debt-to-GDP ratio had risen to 157 per cent of GDP from 55 per cent in 2008, and foreign reserves had dwindled to US$220 million or approximately 6 weeks of import cover. The Barbados Economic Recovery and Transformation (BERT) Plan was implemented in 2018 as part of an IMF-supported reform programme to address these challenges, facilitate economic recovery and resilience, restructure and reduce public debt to 60 per cent of GDP by 2034, restore fiscal and debt sustainability, and shore up foreign reserves.

By 2019, many of the short-term targets under the BERT plan had been met, with gross foreign reserves increasing to $1,481 million or 18.6 weeks of import cover, and debt-to-GDP declining to 118 per cent. However, COVID-19 eroded the progress made under the BERT plan, exacerbated long-term structural vulnerabilities, and poses a significant threat to Barbados' achievement of the Sustainable Development Goals. For example, in 2020, GDP declined by 18 per cent to $8.9 billion, and Barbados' debt-to-GDP ratio increased by to 142.3 per cent. Between March, 2020 and December, 2020, the NIS paid $155 million in unemployment insurance benefits to 37,000 claimants, exceeding the total combined claims of the previous three years. In addition, current expenditure increased by 308.9 million in 2020/2021, due in large part to $166 million in pandemic-related expenditure on public healthcare, stimulus measures and social protection programmes. Meanwhile, current revenues declined by $420.9 million.

Measuring Structural Economic Vulnerabilities

Several economic vulnerability indices (EVIs) have been developed to measure the economic, social, environmental, governance and peripheral vulnerabilities of small states in the intervening three decades since the importance of an EVI featured prominently at the 1994 Barbados Conference on Sustainable Development of Small Island Developing States. However, some of these indices, including the United Nations' EVI and the Caribbean Development Bank's (CDB) Multi-Dimensional Vulnerability Index (MVI), have limitations which render them inadequate.

Critics note that the UN's EVI, which was first developed in 2000 as part of three criteria to classify Least Developed Countries (LDC) (the other two are Gross National Income (GNI) per capita and a Human Assets Index (HAI)), excludes export services despite the fact that a high concentration of services exports, particularly tourism, is a source of vulnerability for small island states like Barbados which derive a significant proportion of national income from tourism. Critics also point out that the CDB's MVI, which was revised in 2019 to include economic, social, and environmental vulnerabilities, has "data availability, weighting, aggregation and [country] coverage" limitations.[3] In addition, other limitations of the MVI include the addition of climate change vulnerabilities which presents complexities related to data availability and the impact of policy induced factors[4].

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[3] World Bank (2018). Small States: Vulnerability and Concessional Finance. https://pubdocs.worldbank.org/en/339601536162647490/Small-States-Vulnerability-and-Concessional-Finance.pdf

[4] Justin Ram, Jason Cotton, Raquel Frederick, Wayne Elliott (2019). Measuring Vulnerability: A Multidimensional Vulnerability Index for the Caribbean. CDB Working Paper No. 2019/01. May, 2019 https://www.caribank.org/sites/default/files/publication-resources/Measuring%20Vulnerability-A%20Multidimensional%20Vulnerability%20Index%20for%20the%20Caribbean.pdf

Given the limitations of the current EVIs, the implementation of a universal MVI has been advanced as a key mechanism to fully evaluate small developing countries' eligibility for concessional financing, and allow them to develop the fiscal space to build resilience against external shocks and structural vulnerabilities. Notwithstanding this, there has been very little international progress or cooperation on the implementation of a harmonised MVI.

Against this backdrop, in 2020, the Government of Barbados increasingly highlighted to the international community the ineffectiveness of per capita GDP as the sole criterion for accessing concessional financing and reiterated the importance of implementing a universal Multi-Dimensional Vulnerability Index (MVI) to effectively assess the needs of small developing states. Furthermore, the Government has requested a review of international financing criteria, particularly in light of the pandemic and climate crisis which have amplified Barbados' long-term structural vulnerabilities; high debt service burdens which present a further threat to economic recovery and resilience; and significant setbacks in relation to Agenda 2030.

Financing Barbados' Economic and Climate Resilience

COVID-19 reversed years of social and economic progress, particularly in relation to poverty, decent work, education, and gender equality. As a consequence, in 2020, the Government placed emphasis on the following measures as part of its pandemic response, and to facilitate economic recovery and build economic resilience:

- Strengthening public healthcare systems to address pandemic-related hospitalizations and treatment, and a national vaccination programme.
- Enhancing social protection programmes such as targeted cash transfers and care packages to vulnerable households.
- Providing business support, including cash transfers to small businesses, to assist with pandemic-related disruptions.
- Enhancing access to education to address inadequate electronic devices, deficiencies in remote learning and inconsistent schooling.
- Improving regulatory reforms and digital transformation to increase efficiency and competitiveness.
- Implementing climate mitigation and adaptation measures to build climate resilience and disaster preparedness.
- Re-skilling and up-skilling programmes to provide displaced workers with the tools to adjust to rapidly changing labour markets, become globally competitive and take up new opportunities for re-employment and re-deployment.

In order to implement these COVID-19 response and recovery measures, in 2020, the Government of Barbados secured Usd$484 million in loans from international lending institutions as follows:

- **Inter-American Development Bank (IDB): Usd$80 million** to modernize regulatory frameworks and strengthen public policies geared towards sustainable development and climate resilience, including water management, disaster resilience and risk management, and integrated coastal zone management.

- **Inter-American Development Bank (IDB): Usd$120 million** to strengthen the public healthcare system, support household income, provide businesses with working capital and promote fiscal and economic stability through post-pandemic recovery measures, including simplified taxes, enhanced government revenues, improved tax management and customs enforcement.
- **International Monetary Fund (IMF): Usd$184 million** to, *inter alia*, support debt sustainability, build economic resilience and protect vulnerable groups through strengthened social safety nets.
- **Development Bank of Latin America (CAF): Usd$100 million** to support fiscal stimulus measures aimed at reducing the economic, social and financial impact of the pandemic, including income for vulnerable households and business liquidity.

In 2020, the Government, cognisant of the fact that climate change presents an existential threat to Barbados' economic recovery and resilience, successfully negotiated the inclusion of Counter-Cyclical Provisions (CCPs) in the form of natural disaster clauses in both domestic and external loan instruments to allow for the temporary suspension of debt obligations (2 years), preserve fiscal space, enhance debt sustainability, and minimise the risk of default.

The Government also explored innovative financial instruments such as Blue Bonds, which were pioneered by the Seychelles, to finance marine conservation. In this regard, the Government secured Usd$100 million in risk insurance through the U.S. International Development Finance Corporation (DFC) to establish a Usd$237.5 million Blue Bond for Marine Conservation to support the conservation, protection and management of marine and coastal ecosystems. Barbados is expected to save Usd$22 million in debt service payments.[5]

Consideration has also been given to the use of debt swaps (debt forgiveness or cancellation) for climate change adaptation and mitigation measures such as reduced dependence on fossil fuels, environmental conservation and climate resilience. At the same time, the Government will continue to press for effective international cooperation and commitments on concessional financing and long-term debt relief and sustainability to build economic and climate resilience and address the structural vulnerabilities middle and high income small island states face.

VII. SAVING LIVES AND LIVELIHOODS

At the end of 2020, Barbados recorded seven (7) deaths from coronavirus. The pandemic not only presented a public health crisis, but had far-reaching social and economic implications in that it placed considerable demand on the public healthcare system and social safety framework.

Following Barbados' first confirmed cases in March, 2020, the Government responded swiftly with several economic and social measures designed to save lives and preserve livelihoods. These measures included increases to the budgetary allocation of the Welfare Department, the launch of the Adopt Our Families Programme, and the introduction of the BEST Programme. In addition, several public health measures were implemented, including the establishment of an isolation centre dedicated to treating patients infected with the coronavirus, the establishment of a COVID-19 Monitoring Unit, and a comprehensive public education on masking, physical distancing and hand hygiene.

[5] https://www.dfc.gov/sites/default/files/2019-08/9000093328.pdf

Covid-19 Response: Health

As the COVID-19 pandemic evolved during 2020, the Government implemented comprehensive public health measures which were adapted to the local context and epidemiology of the disease. Several public health measures designed to reduce transmission of COVID-19 were employed, including:

- Identification, isolation, testing and clinical care for all cases;
- Tracing and quarantine of contacts; and
- Encouraging physical distancing of at least one (1) metre (or three (3) feet) combined with frequent hand hygiene and respiratory etiquette.

Health professionals used tried-and-tested methods for infectious disease surveillance and control. Digital technologies were also harnessed to aid public health surveillance and contact tracing. To this end, the Ministry of Health and Wellness implemented a comprehensive COVID-19 tracking and monitoring system through the acquisition of hardware, software and human resources.

Strengthening Human Resources Capacity

In order to cope with the demands of the pandemic, the Ministry of Health and Wellness strengthened its human resources by recruiting one hundred (100) nurses from Cuba and an additional one hundred and twenty (120) nurses from Ghana.

Capacity for COVID-19 testing was expanded at the Best-Dos Santos Public Health Laboratory (PHL) through additional technical staff, and training in the areas of COVID-19 testing and laboratory quality assurance with assistance from the Pan American Health Organization (PAHO) and the Center for Disease Control (CDC). Additionally, the PHL employed the SHAPE application to assess samples and report results in a more efficient and timely fashion.

Establishment of Isolation Facilities

An isolation facility was established at Harrison Point, St. Lucy during 2020 to provide care for people who tested positive for COVID-19. The Queen Elizabeth Hospital (QEH) also facilitated the operation of additional isolation facilities as required.

Establishment of the COVID-19 Monitoring Unit

The COVID-19 Monitoring Unit was established to implement, monitor and assess public health and social protocols. The Unit provided extensive sensitization and training for workers in the private and public sectors, as well as business operators.

Additionally, the Ministry of Health and Wellness strengthened its ability to monitor quarantine sites and violations of COVID-19 protocols with the establishment of a COVID Rapid Response Unit and a COVID Quarantine Engagement Unit. The COVID Rapid Response Unit comprises members of the Royal Barbados Police Force (RBPF) and the Barbados Defence Force (BDF) who are deployed to quickly address challenges with compliance.

The Quarantine Engagement Unit works with people in quarantine who are awaiting test results and ensures adherence to the protocols, and includes Community Health Liaison Officers who are tasked with overseeing the operations at quarantine hotels.

National COVID-19 Hotline

The National COVID-19 hotline was implemented in March, 2020. This 24-hour hotline fields general questions and concerns from the public. When it was first established, the Hotline utilized a system of log sheets which was tedious and inefficient. In September, 2020, the Hotline began to utilise the SHAPE application to log and store calls electronically.

Philanthropic Donations and Collaborative Ventures

Barbados' COVID-19 response received tremendous support and donations from the private sector and individuals. This strong philanthropic support augmented the Government's procurement of essential specialised medical equipment and supplies, including personal protective equipment. Additionally, volunteers assisted with the operations of isolation and quarantine facilities, the COVID-19 hotline, and swabbing and testing centres. The response effort was also bolstered by strategic partnerships between the Government of Barbados and the Pan American Health Organisation (PAHO), Inter-American Development Bank (IDB), European Investment Bank (EIB) and the Caribbean Public Health Agency (CARPHA).

Impact on Other Aspects of the Health Sector

During 2020, COVID-19 caused disruptions to primary care services delivered through polyclinics and mental health services. Primary care services at some polyclinics, including dental and nutrition services, podiatry, child guidance, 24-hour extended service and out-patient clinic services, were disrupted due to required reconfigurations to manage people with COVID-19 symptoms. As a consequence, patients were redirected to other polyclinics for continued care. With respect to mental health services, adjustments to the operations of polyclinics resulted in an increase in clients accessing outpatient services at the Psychiatric Hospital.

Disruptions were also observed in relation to the national non-communicable diseases (NCDs) and HIV/STI programmes. 2020 was to be designated as the year to focus on the NCD epidemic. However, this initiative, which was supposed to take place alongside the We Gatherin' programme, was cancelled due to the pandemic. In relation to the national HIV/STI programme, COVID-19 caused delays in diagnostic and monitoring services provided by the QEH Laboratory and the Best-Dos Santos Public Health Laboratory, and affected the diagnoses and clinical management of people living with STIs as well as the submission of related indicators to external donors and other international organisations.

Surveillance Against Dengue Fever

In addition to COVID-19, the Ministry of Health and Wellness continued to monitor dengue fever cases. At the end of 2020, 1,227 suspected or probable cases of dengue fever were recorded. Of these, 109 cases were confirmed. Ninety-five (95) of the confirmed cases were hospitalised, while six (6) people were severely ill. Two (2) deaths were attributed to dengue fever during the year, while a third death was suspected.

Social Protection

During 2020, as part of efforts to address social issues resulting from the pandemic, the Welfare Department's budget was increased by $10.0 million, while its cash grant allocation was increased by 40.0 per cent to facilitate the provision of cash grants of $600 to households.

The Welfare Department experienced an increase in applications for both monetary assistance and in-kind support during 2020. With respect to monetary assistance, 1,471 new applications were recorded during 2020, an increase of 361 when compared with 2019, when 1,110 were recorded. Monetary assistance was provided to 5,800 applicants in 2020, an increase of 1,417 or 32.3 per cent when compared with 4,383 in 2019. Expenditure directed towards the provision of monetary assistance was approximately $22.5 million, which represented an increase of 57.3 per cent when compared with 2019, when approximately $14.3 million was spent.

In relation to in-kind support, a total of 19,192 new applications were recorded in 2020, of which 15,784 were for food. During 2020, 16,950 of the new applications (including 14,782 for food) were approved. Total expenditure utilised for in-kind support was $11,369,164.34, an increase of $2,638,042.31 or 23.2 per cent when compared with 2019, when $8,731,122.03 was expended.

The School Meals Department of the Ministry of Education, Technological and Vocational Training distributed 378 food packages to vulnerable families with school-aged children as a result of the suspension of the national school feeding programme due to COVID-19.

Work undertaken during the year by the Ministry of People Empowerment and Elder Affairs included coordinating the distribution of approximately 4,000 care packages to vulnerable people.

Adopt Our Families Programme

The Adopt Our Families Programme was designed as a short-term measure to assist families who have been negatively impacted by COVID-19. Priority was given to households with no income or very little income, as well as households with four (4) or more children. The Programme also facilitated the provision of cash transfers to eligible people who were selected through the implementation of a rapid assessment process by the Ministry of People Empowerment and Elder Affairs.

During the period April to December 2020, the Adopt Our Families Programme received $15,383,854.42 in funding. Of this amount, $3,366,254.42 was donated by 648 individuals, organisations and companies in Barbados and across the diaspora. Additionally, philanthropic organisations donated hampers, food vouchers, water tanks, garden start-up kits, household cleaning kits and hygiene kits in lieu of cash. Approximately 17,000 people in 4,223 households received cash and other benefits.

COVID-19 Relief Programme

The COVID-19 Relief Programme was announced in September, 2020 as an initiative to further assist people in providing for their families through the provision of employment for twelve (12) months in a range of areas, including as primary school monitors to assist children in following the COVID-19 protocols while at school; provision of support services to the National Assistance Board (NAB) for the elderly; and at agricultural stations to assist in enhancing national food security. School monitors commenced work during October, 2020.

Training and Retooling

The pandemic impacted education at all levels during 2020. In order to minimise the risk of exposure and spread of COVID-19, in-person educational and training programmes were limited or suspended altogether. In lieu of in-person teaching, the majority of educational and training programmes undertaken in 2020 was conducted online. Consequently, the Ministry of Education, Technological and Vocational Training increased its expenditure under the Education Sector Enhancement Programme (ESEP) for 2020/2021 by 94.1 per cent to $9,375,597, when compared with $4,831,291 for 2019/2020. This increase was due to additional capital expenditures, including purchases of electronic devices and software to facilitate online education.

The Ministry of Education, Technological and Vocational Training utilised Google Suite for Education for all public nursery, primary and secondary schools, and conducted training in online instruction for teachers so that children could continue to access education online. In addition, the Ministry procured devices from Kenya for use by teachers and students, and received donations of devices from organisation and companies in Barbados and across the diaspora.

During 2020, the Ministry of Labour and Social Partnership Relations partnered with the Commonwealth of Learning to offer free online training to people who became unemployed as a result of COVID-19. The online training consisted of access to over 4,000 courses and specialisations offered through the Coursera Workforce Recovery Programme. Participants under the Programme originally had until the end of August, 2020 to register for training. However, the registration period was extended to December, 2020 due to the continued impact of COVID-19. At August, 2020, 3,000 people had registered for training, while 2,300 had enrolled in courses.

Additionally, the National Transformational Initiative (NTI), which is part of the Retooling and Empowering, Retraining and Enfranchising (RE-RE) programme under the Barbados Economic Recovery and Transformation (BERT) Plan, was launched in May, 2020. This initiative addresses Pillar 1 of the Growth Reforms, investing in skills training and education. The overall objective of the NTI is to sharpen knowledge and skills, especially in the informal sector, private sector and civil society, and to expand the national sense of identity, pride and self-respect. The NTI is also responsible for the training component of the BEST programme.

Micro, Small and Medium-Sized Enterprises

Agencies in Barbados that provide funding to micro, small and medium-sized enterprises (MSMEs), such as the Barbados Trust Fund Limited, Enterprise Growth Fund Limited (EGFL), Youth Entrepreneurship Scheme (YES), Barbados Agency for Micro Enterprise Development (FundAccess), and Barbados Investment and Development Corporation (BIDC) continued their efforts to assist businesses, to weather the impact of COVID-19.

Most of the agencies experienced a reduction in loan payments given that the majority of their clients were negatively impacted by the pandemic. Additionally, agencies implemented policies such as moratoriums on client loans, loan renegotiation, and prioritised businesses in the agricultural and manufacturing sectors for refinancing in order to assist their clients.

Due to the pandemic and the resulting increase in requests from small businesses for financial and technical assistance, the Ministry of Energy, Small Business and Entrepreneurship increased its collaboration with its strategic partners through the Small Business Development Centre (SBDC) framework (a regional framework provided through the OAS) to provide more effective assistance to the MSME sector during 2020. Additionally, the Organization of American States (OAS) and the United Nations Development Programme (UNDP) provided technical assistance to the MSME sector.

The OAS' Caribbean Small Business Development Centre (SBDC) programme partnered with a local non-profit to host two webinar series for MSMEs during May and June, 2020. The first webinar series, "Breakthrough", aimed to provide Regional entrepreneurs with tools and strategies to respond successfully to changes brought about by the pandemic, and provided a platform for participating businesses to share their own experiences and strategies. The second webinar series, "Moving Beyond the Likes: Social Media for Business Success", was a follow up to the first webinar series and provided Caribbean entrepreneurs with tools and strategies to harness social media and digital technologies to promote and grow their businesses.

Additionally, the SBDC partnered with a university in the United States of America (USA) to develop a COVID-19 recovery programme for the directors and advisors of Caribbean SBDCs. The programme was implemented through a virtual training series, and was aimed at providing assistance to guide clients through the survival and recovery process for the pandemic and natural disasters. The OAS contributed US$51,288.30 towards the initiative.

As part of its COVID-19 response programme, the UNDP partnered with governments, private sector and civil society organisations to assist with the provision of support for MSMEs and vulnerable populations. This included the creation of the #eFUTURE platform which provided strategic steps to help businesses retool and discover new ways to reach customers via seven (7) guides; partnerships to develop a digital marketplace to enable unemployed people seek income generating opportunities and pivotal skillsets while ensuring safe consumer access to local products; and the co-creation of a digital farming and fisheries portal to more effectively connect local vendors and consumers and develop traceability systems.

Barbados Employment and Sustainable Transformation (BEST) Programme

The $300.0 million BEST programme was established the Government to facilitate the transformation of the tourism sector and direct tourism-related services, and protect related employment in response to the social and economic impacts of COVID-19. Implementation and monitoring of the BEST Programme are facilitated through the Enterprise Growth Fund Limited (EGFL).

During 2020, thirty-two (32) applications were approved under the employee re-engagement component of the BEST programme, which were valued at $130,802,010. In addition, $5,581,636 was disbursed, and 1,663 employees were re-engaged. Five (5) applications were approved under the transformational investment component of the Programme.

Self-Employed Business Interruption Benefit

The Self-Employed Business Interruption Benefit, which was announced in May, 2020, was designed as a one-time benefit to assist self-employed people whose business activities were interrupted due to the pandemic. The National Insurance Office facilitated the payments of $1,500 per month for April and May, 2020. Approximately $4.4 million was disbursed to 1,477 self-employed people.

Other measures provided by the Government to assist businesses to mitigate the impact of COVID-19 included:

- **Small Business Wage Fund** ($2.0 million) was established to assist businesses which were too small to be eligible for the payment of VAT or VAT refunds to cope with challenges related to COVID-19.
- **VAT Loan Fund** ($40.0 million) was established to assist companies whose cash flows were disrupted by measures to contain the pandemic with avoiding insolvency, bankruptcy and further unemployment. The VAT Fund was capitalised by the Catastrophe Fund of the NIS.

VIII. ADVANCING DIGITAL AND REGULATORY TRANSFORMATION

The pandemic prompted a paradigm shift in the way business was conducted during 2020, with a major push to paperless commercial activities and contactless technologies. Digitalisation emerged as a tool to build and sustain economic growth, as agencies adapted to an environment where in-person interactions and traditional methods of commerce were no longer feasible due to the health and safety risks and concerns.

In order to maintain viability and enhance resiliency, several businesses expanded their product and service mix, diversified service delivery options, and redesigned business processes, including digitalisation and automation. COVID-19 not only led to changes in business processes, but acted as a major catalyst for digital transformation, with greater adoption of innovative technologies which were in trial phases in the pre-pandemic period. As a result, there was a noticeable increase in the utilisation of online platforms to facilitate banking and other commerce, training and education, and meetings and conferences.

The pandemic also accelerated the Government's expanded use of e-commerce and tele-commuting platforms, as well as other regulatory reforms intended to improve the business environment and the delivery of services to the public. Prior to the pandemic, many agencies suffered from slow and bureaucratic procedures which were based on hierarchical and cultural business norms, which resulted in lower than expected productivity across the public sector. COVID-19 forced many organisations to disband these rigid systems, enabling a more fluid feedback mechanism for decision-making and implementation.

In recent years, the modernisation of the public sector has become a clear priority of the Government, with focus being placed on improving effectiveness, quality and cost efficiency for the services provided by the Government. In 2019, the Government secured a US$40 million loan from the Inter-American Development Bank for the implementation of the Public Sector Modernisation Programme. The Programme will reform the Government's approach to human resource management, inclusive of retooling and retraining public sector employees; the digitalisation of paper-based records within the public service, as well as digital transformation of the public sector.

The Public Sector Modernisation Programme will include the development of an e-service platform, which will facilitate the provision of several Government services online, thereby reducing processing times and improving service delivery. In the initial stages, the platform will facilitate applications for Certificates of Character, Liquor Licences and Passports, and provide a directory of services, with a listing of all Government services. It is expected that the introduction of this platform will reduce the timeframe for providing these services from weeks to 24 hours in some cases. The general design of the portal was completed in 2020.

Other regulatory reforms and advancements undertaken during the review period include:

- The expansion of services assessable through the EZpay Platform. This platform facilitates the online payments for various government service transactions using multiple payment options such as credit cards, mMoney and debit cards. The additional services facilitated via this facility include Engineers' and Pilots' licenses; services provided by the Office of Supervisory of Insolvency; renewal of drivers' licenses, tax administration management information system, the Welcome Stamp Programme; and telecommunication licences. The Corporate Affairs and Intellectual Property Office (CAIPO) was also included on the EZ Pay platform, whereby registered agents can "top-up" their accounts from which funds are deducted as they file documents and perform various transactions.

- The Department of Commerce and Consumer Affairs (DCCA) re-purposed and re-engineered some of its operational systems due to the impact of COVID-19. The Department joined the Barbados Electronic Trade System (BETS) and commenced online processing of import licences through the ASYCUDA customs system. The Department intends to implement the Electronic Single Window as the next step towards increasing its operational capabilities and improving trade facilitation. Additionally, in order to provide a more business efficient e-solution and modernize the system for issuing liquor licenses, a new Liquor Licence Bill was formulated to repeal the Liquor Licences Act Cap 1852 which was a manually processed by the Magistrates' Courts.

- Increases in human resource capacity as well as a streamlining of processes led to a reduction in the timeframe for the issuance of a certificate of inspections by the Government Electrical Engineering Department to approximately two days after the successful completion of an electrical inspection.

- The enhanced utilization of flexible working arrangements within the public service to limit in-person interactions and minimise the risk of being infected with or spreading the coronavirus. Many public agencies implemented remote work arrangements, flexi-time or shift arrangements. The use of online platforms, such as Microsoft Teams and Zoom, was also expanded to accommodate meetings and training.

- The provision of most training and education programmes via online platforms. The Ministry of Education, Technology and Vocational Training (METVT) equipped teachers with the necessary digital skills and e-pedagogies, allowing for learning continuity outside the traditional classroom via virtual platforms. Additionally, provision was made for the acquisition of necessary software and hardware to facilitate the participation of students in online forums.

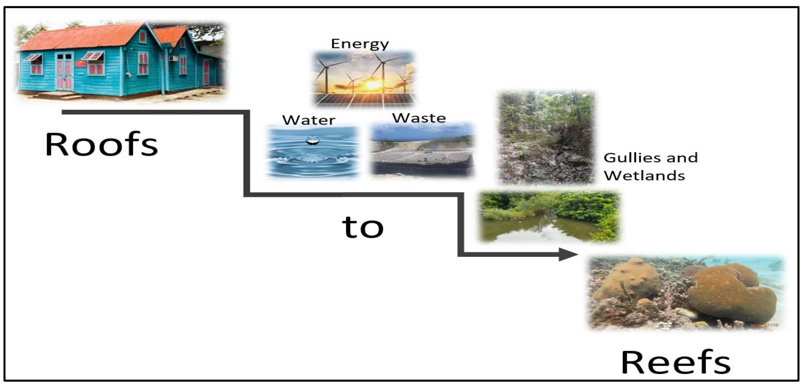
IX. GREEN RESILIENCE AND INCLUSIVE RECOVERY

In order for Small Island Developing States (SIDS) like Barbados, to fulfil their 2030 Sustainable Development Agendas various and substantial financial, technical and other sources of national investments are essential for the critical transformation that is necessary to take us into the next century and allow us to be able to mitigate against and adapt to the phenomenal dynamics of climate change. The

Government of Barbados has recognized the importance of counteracting climate change and has initiated an approach to address these issues through the "Roofs to Reefs Programme."

Roofs to Reefs Programme

In December 2019 the Roofs to Reefs Programme was established. The Roofs to Reefs Programme (R2RP) is a holistic, integrated national initiative for the resilient development of Barbados. The Programme provides a response at the individual, community and country levels and presents an integrated public investment programme founded on principles of sustainable development and climate change resilience. The R2RP represents the development model for Barbados for the next decade. Its focus is on improving the social and environmental circumstances of Barbadians: improving living conditions and making us more resilient to the impacts of the worsening climate crisis and related natural disasters while increasing our ability to recover quickly post-disaster.

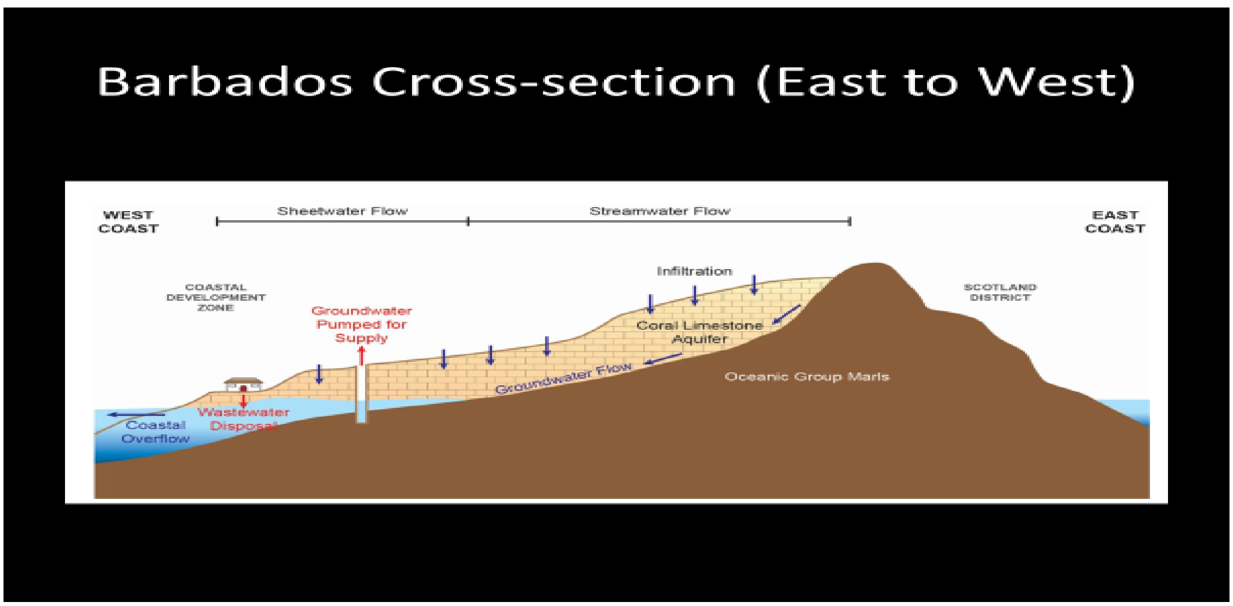


The R2RP is directly related to the Physical Development Plan (PDP). The PDP provides the:

- Vision for the Sustainable Growth and Development of Barbados
- Framework to facilitate and guide public and private investment
- The PDP seeks to:
- Foster the economic, environmental, physical and social well-being of the residents of Barbados
- Address the critical impacts of climate change on Barbados as a Small Island Developing State (SIDS) through policies and strategies that enable the people of Barbados to thrive and remain resilient under changing climate conditions
- Establish a vision to guide the future form of development with respect to land use, settlement patterns, food production, infrastructure, mobility and environmental management
- The R2RP operationalizes the PDP and provides the vehicle through which investment will be driven for the public sector and the country in general. It seeks to identify the key projects and programmes, along with their costs, and identify and pursue funding opportunities to realize these under the constant spectre of climate change.
- There are certain aspects of Barbados' geography that set us apart from neighbouring

islands, and have influenced the need for and the design of the R2RP. These are detailed below:

- The significant majority (85%) of Barbados' land mass is formed from uplifted fossilized coral reefs, giving rise to complex and distinctive Karstic hydrogeology (landforms and the way water flows over and through them)
- There is little permanent surface water, and since the aquifer is unconfined, groundwater generally flows towards the sea
- More water flows to the sea from underground (submarine groundwater discharge) than overland (surface water)
- The points where surface water enters the sea (outlets or 'point sources') are readily located, but submarine groundwater discharge is diffuse and not confined to specific locations ('non-point'). This adds creates additional challenges in managing land-based sources of pollution.
- The majority (85%) of the nutrient pollution to the sea is from groundwater and 15% from overland flow (stormwater)



Other key factors influencing the need for and the structure of the R2RP include:

- Barbados' early development relative to many other Caribbean SIDS
- The high density of population and early coastal settlement results in a highly modified natural environment, contributes to the scarcity of natural resources such as land and water, and exacerbates natural hazard risk
- While land is scarce, like many SIDS, the area of Barbados' Exclusive Economic Zone is many times (over 400 times) larger than its land area
- The objectives of the R2RP are:
- to make low- and middle-income homes more resilient to extreme weather events, as well as possible loss of the electricity grid and potable water distribution systems

- to increase freshwater storage capacity and water use efficiency
- to reduce carbon emissions through the deployment of distributed renewable energy generation
- to decrease land-based sources of marine pollution
- to implement more sustainable land (and marine space) use practices
- to make critical utility, water and sanitation, and road infrastructure climate resilient
- to restore the reduced coral reef ecosystem services particularly on the west and south coasts of the island;

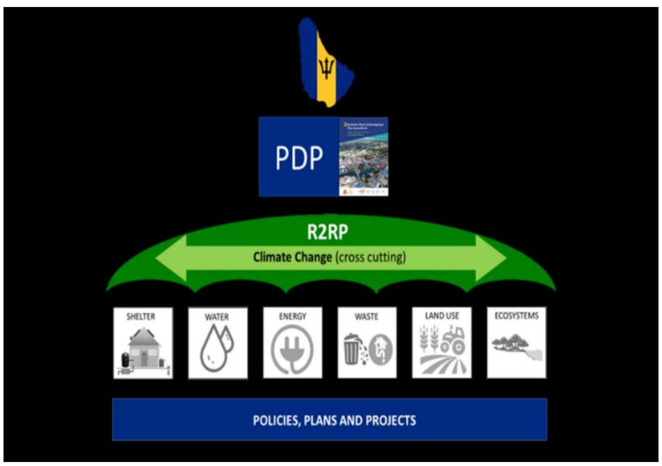
Realizing the benefits of the R2RP would result in:

- improving the standard and quality of life of the most vulnerable population of Barbados
- improving individuals' and communities' social well-being and significantly reduce the damage to property, loss of life, and the expenditure costs incurred after a severe weather event
- providing a more resilient housing stock through retrofitting to withstand wind speeds of up to category 4 weather systems
- equipping of homes with the storage capacity for potable water, to increase resilience to drinking water shortages and to provide for rainwater harvesting
- improved rainwater harvesting, roof fortification and disaster-resilient potable water storage
- development of protocols and standards for rooftop solar photovoltaic (PV) panel installation and recommended alternative options for energy storage; collection of data on energy storage technology, social and gender impacts, vulnerability assessment data, data to allow evaluation of alternative ecosystem-adaptation based methodologies, and proven cost recovery models
- providing a more climate-resilient housing stock;
- creation of a distributed electricity generation sector particularly for the most vulnerable households before and after a disaster
- reducing GHG emissions; augmented water storage capacity and more efficient capture of storm water
- reducing impacts of pollution of on ecosystems; improved health of ecosystems and biota providing ecosystems services, which are vital to the ecology and the economy
- avoidance of economic catastrophe and providing for a shorter recovery time post-disaster, as well as more resilient, sustainable households, while reducing the island's carbon footprint and preserving and enhancing ecosystems
- coastal ecosystems, shorelines and the coral reefs will be protected and preserved for future generations

The R2RP provides the overarching framework that allows the integrated approach to addressing activities under all of the key sectors as a response to the impacts of Climate Change that affect all sectors. Projects will be detailed under all sectors, though as one would expect not all are detailed at this stage. The sectors defined for the purpose of R2RP relate to fundamental issues and not traditional economic sectors. Specific economic sectors such as tourism and agriculture are encompassed within the R2RP broad sectors and will be addressed. The R2RP provides the overarching framework that allows the integrated approach to addressing activities under all of the key action sectors as a response to the impacts of Climate Change that affect all economic sectors.

The specific areas of focus are detailed below. These key sectors will interact directly or indirectly with all other sectors, resulting in the transformative change we are all seeking:

1. Shelter (Housing Upgrade, Water Borne Facilities)
2. Water (Rainwater, Stormwater, Groundwater, Potable Water, Wastewater)
3. Energy
4. Waste
5. Land Use (including use of the EEZ and terrestrial agriculture)
6. Ecosystems (Gully and Wetland Ecosystems and Terrestrial Biodiversity, Coral Reefs and Other Marine Ecosystems and Marine Biodiversity)



The current circumstance represents an ideal opportunity for such an integrated and holistic approach as the political and institutional will are there. The technical agencies that need to be involved have been working well on an integrated approach reflected in the ongoing work in the water sector addressing all aspects from potable water management and groundwater recharge, revised groundwater zoning, wastewater treatment and reuse to stormwater management and improved nearshore water quality. Circumstances are prime to build on this approach.

Barbados has the advantage of having a great deal of data and studies, but there is a need to effectively leverage this body of information to support sustainable development. While we accept that there are gaps and that there may be the need to update studies in some areas to better inform methodologies and designs, there is enough data available to make any further research strategic and targeted towards filling gaps rather than seeking to fund large broad ranging studies as has been the approach in the past. It is key as well that any studies be linked directly to projects and that the approach taken is to pursue research, planning and implementation as a package.

The current approach will call for us all to be willing to move beyond traditional public service siloed approaches and thinking, and embrace partnerships (both public-public and public-private). The leaders of key agencies have been in place for a considerable period of time, have high levels of technical capacity, extensive institutional knowledge, and well develop relationships amongst themselves and with private sector technical officers. This is an opportunity that needs to be seized at this critical juncture in our fight against the dual crises of climate change and Covid 19.

The Government of Barbados has secured funding from the Green Climate Fund for the provision of a Readiness Grant in the sum of $624,527.00 (USD) under Grant Number (BRB-RS-002). This Grant provides coverage for consultants and allows for the development of Concept Notes, Funding Proposals and Projects for which funding will be sought.

Programme financing for the R2RP is being provided through a variety of sources including but not limited to:

- International partners and donor agencies to support the implementation of the R2RP
- Readiness Support from GCF
- Direct Government subvention
- Revolving loan programmes, and
- Other sources

In addition, the Government of Barbados is working with the Inter-American Development Bank (IDB) on the development of a financing model through which a Special Purpose Vehicle (SPV) will be set-up and capitalized to provide the initial seed capital. The IDB is working with the Economic Affairs Division on the structure of the model. The Division, through the SPV will then work with the Green Climate Fund (GCF) and others to leverage an additional sum to execute the projects under the R2RP Pipeline.

The SPV will allow for:

- Securitization of loans and other receivables
- Financing through loans and grants (for individual projects and ventures)
- Raising Capital

The R2RP seeks to bring a holistic approach to the resolution of a series of problems which, despite the best efforts of policy makers and technical officers, still persist in this country. These relate directly to the sustainable development goals and to the development of Barbados in a fair and equitable manner.

The key action sectors of Shelter, Water, Energy, Waste, Land Use and Ecosystems, identified above allow us to advance in addressing SDGs 1 – no poverty, 2 – zero hunger, 3 – good health and well-being, 6 – clean water and sanitation, 7 – affordable and clean energy, 8 – decent work and economic growth, 9 – industry innovation and infrastructure, 10 – reduced inequalities, 11 – sustainable cities and economies, 12 – responsible consumption and production, 13 – climate action, 14 – life below water, 15 – life on land and 17 – partnerships. Goals 4 – quality education, 5 – gender equality and 16 – peace justice and strong institutions (strong institutions component) are cross-cutting and are built into all R2RP projects even though they are not specifically referenced.

A number of projects have already been conceptualized under the R2RP and are complimentary to other projects led by a number of public and private sector entities but integrated into the R2RP. The specific projects detailed to date under the R2RP are listed below:

- Resilient Shelter
    - Vulnerable Identified Individuals Resilient Housing Project
    - National Pit Latrine Eradication Project
    - Resilient Transitional Housing Project
    - From Vulnerable to Climate Resilient Shelter

- Integrated Water Resources Management
    - Household Potable Water Storage Project
    - Household Rainwater Harvesting Project
    - Household stormwater management and aquifer recharge
    - West Coast Water Augmentation Project
    - Grey and Green Stormwater Management and Flood Resilience

- Green Energy
    - Resilient Green Energy for Households

- Integrated Waste Management
    - Regulatory Framework for the Operation of Solid Waste Management Facilities
    - Integration of Waste-to-Energy into the Integrated Solid Waste Management Programme
    - Household Curbside Collection Project
    - Lower Estate Dumpsite Rehabilitation Project
    - Leachate Treatment Plant
- Sustainable Land Management (including Resilient Agriculture)
    - Gully Rehabilitation Project

- Establishment of a Regulatory Framework for the Management of End-of-Life Quarries
- For Life (From Waste to Agricultural Application)

- Ecosystem Rehabilitation and Ecosystem-based Adaptation
  - EBA Wetlands Rehabilitation and Expansion
  - Seagrass Bed Replanting and Rehabilitation
  - Coral Culture Facility and Reef "Restocking" Programme
  - Coastal/ Marine Ecosystems Revolving Fund

5. There are a number of other initiatives and projects that fit well under the R2RP umbrella and are key to creating economic initiatives. These include but are not limited to:

a) Contingent Credit Facility
b) Nationally Determined Contributions (NDCs)
c) Blue Economy Roadmap
d) Desalination and Brine Disposal
e) Revised Physical Development Plan
f) Adaptation Measures to Counter the Effects of Climate Change Programme
g) Revised Groundwater Zoning Policy
h) Blue and Green Bonds
i) Groundwater augmentation
j) Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados)
k) 3R's (Reduce, Re-use, Recycle) Climate Resilience Wastewater Systems Barbados Project Preparation Facility (3RCrEWS)
l) Marine Coastal Ecosystems Biodiversity and Services in a Changing World or MaCoBios Project

The foregoing work under the R2RP is focused on climate resilience and sustainable development over the long term However, Economic Affairs/SDU also recognizes the need for measures to address hazard risks, especially from rapid onset events.

It is accepted that Barbados is at risk with respect to a number of natural and human-induced hazards including cyclone, earthquake, landslides, tsunamis, floods, drought, fire, extreme temperatures, disease epidemics, plagues and industrial and/ or transport related accidents. While all merit consideration, tropical cyclones or hurricanes are high risk rapid onset events with potential catastrophic consequences, and showing a trend of increasing intensity that is linked to the climate crisis. . Accordingly, there is a need to bring specific focus to measures to alleviate the potential impacts of tropical cyclonic events, particularly wind and water impacts, including storm surges, inland generated flooding wind related damage/ failure and the synergistic effects of these.

Infrastructure development is key to improving the climate resilience of Barbados to a significant cyclonic event, reducing the extent of the impact and reducing the vulnerability of those most vulnerable through development interventions that can be made before “the storm hits”.

The interventions represent a holistic response that leaves the country in a position to more quickly recover from the impacts. They represent both short term and long-term interventions.

Barbados, along with Singapore, have often been referenced as a model for development and in 2018 had one of the highest GDPs per capita (US$17,961) in the region. The high density of population and coastal settlement results in a highly modified natural environment, contributes to the scarcity of natural resources such as land and water, and exacerbates natural hazard risk.

Every year, between June and November, Barbados and the other countries in the region face the threat of hurricanes. In less than 12 hours, a small island in the Caribbean can lose in excess of 300 percent of its GDP (e.g. Grenada in 2004 & Dominica in 2017) or become completely uninhabitable (Barbuda in 2017). While Barbados has not received a direct hit from a hurricane since 1955, the country’s $5 Billion (USD), tourism-dependent economy could be devastated by a single event. Climate change has exacerbated this risk. 2017 generated 17 named storms, six of which were major hurricanes and two of which were Category 5. Hurricane Irma, with maximum sustained wind speeds of 185 miles per hour (298 kilometers per hour), was the strongest hurricane ever recorded in the Atlantic.

The 2020 Hurricane season was the most active to date with some 31 tropical or sub-tropical storms, including 30 named storms. This record-breaking season has seen the formation of 13 hurricanes, including 5 category 4 hurricanes and 1 category 5 hurricane. The season officially started on June 1, however by that date Tropical Storms Arthur (May 16) and Bertha (May 27) has already formed. Hurricane Iota became a Category 5 on November 16, the latest recorded formation of a Category 5 hurricane on record.

This coincided with the global Covid 19 pandemic, which has decimated economies all over the world and has made Barbados more vulnerable at the Country, community and individual levels.

It is against the background of a suite of challenges that have emerged or accelerated in 2020 that this programme of infrastructure improvements is being prepared. A tiered approach has been taken with (3) tiers and considering specifically the infrastructure areas related to housing/ shelter, water, energy, waste transport and security (including food security). It is accepted that with a direct hit, wind damage is likely across the island but that the combined effects of wind, inland generated flooding and storm surge impacts are likely greatest along the South and West coastal plains and in Belleplaine, St. Andrew. The three tiers are defined as follows:

a) Tier I – Critical Infrastructure

b) Tier II – Comfort, Resilience and Recovery

c) Tier III – Longer Term Outlook and Impact Reduction

The National Coastal Risk Information and Planning Platform has been used to identify the Tier I critical infrastructure. The 2021 Population & Housing Census will also be critical in informing and revising the R2RP and the associated critical infrastructure resilience building component.

Exposure relates to the location, attributes and value of an asset that could be exposed to a hazard. Vulnerability refers to the likelihood of an asset being destroyed/ damaged/ affected by a hazard and Risk relates to the probability of harmful consequences or expected losses. Risk can be represented as:

Hazard (H) x Vulnerability (V)

Risk (R) = --------------------------------------

Capacity to Cope (C)

It should be noted for example that it is possible for a structure to be exposed but not vulnerable.

The capacity to cope related to the critical nature of the asset and can also be influenced by the ability to mitigate. Mitigation is defined as reduction of the exposure, vulnerability or the value, amount or extent of the asset at risk. It should be noted that mitigation is not always possible or feasible (from an economic, social or environmental perspective).

Climate Finance

Climate Finance refers to local, national or transnational financing drawn from public, private and alternative sources of financing that seeks to support mitigation and adaptation actions that will address climate change. The UNFCCC, the Kyoto Protocol and the Paris Agreement desires financial assistance from Parties with more financial resources to support those that are less endowed and more vulnerable. Climate finance is needed for mitigation, because large-scale investments are required to significantly reduce emissions. Climate finance is equally important for adaptation, as significant financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate. The contribution of countries to climate change varies enormously and is recognized by their capacity to prevent it and cope with its consequences.

In accordance with the principle set out in the Convention of “common but differentiated responsibility and respective capabilities”, developed country Parties are to provide financial resources to assist developing country Parties implement the objectives of the UNFCCC. The Paris Agreement reaffirms the obligations of developed countries, while for the first time also encouraging voluntary contributions by other Parties. Developed country Parties should also continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties.

It is important for all Governments and stakeholders to understand and assess the financial needs of developing countries, as well as to understand how these financial resources can be mobilized to achieve a balance between adaptation and mitigation. These finance flows should be consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. The Paris Agreement places emphasis on the transparency and enhanced predictability of financial support, and hence established a financial mechanism which serves the Kyoto Protocol and the Paris Agreement to provide financial resources to developing country Parties.

Countries recognized the need for specific climate financing in the Paris Agreement which calls for “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.” In addition to reducing emissions, and making infrastructure more resilient avoids costly repairs and minimizes the wide-ranging consequences of natural disasters on the livelihoods and well-being of people, particularly the most vulnerable, as well as on businesses and economies. The Paris Agreement seeks to make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development while placing emphasis on the transparency and enhanced predictability of financial support.

The Paris Agreement speaks to implementation that reflects “equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances." Responding to the climate crisis requires collective action from all countries, cities, financial actors, businesses, and private citizens. Among these concerted efforts, developed countries have committed to jointly mobilize US$100 billion per year by 2020, from a variety of sources, to address the pressing mitigation and adaptation needs of developing countries.

The climate finance mechanism comprises three modules each of which includes information made available by Parties and the operating entities of the financial mechanism. The first module, the National Communications Module presents information communicated by contributing countries on the provision of financial resources, in the context of regular reporting to the Convention. The second module, the Fast-start Finance Module includes information on resources provided by developed countries in the context of their commitment to provide approximately USD 30 billion over the period 2010–2012. The third module, on Funds Managed by the Global Environment Fund (GEF), is a joint effort between the secretariat of the UNFCCC and the GEF and contains information on climate finance flows of the GEF in its role as one of the operating entities of the financial mechanism to the Convention. The Adaptation Fund is also a source of climate finance which was established under the Kyoto Protocol to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol.

Green Climate Fund (GCF)

The GCF has responded to climate change by investing in low-emission and climate-resilient development. It was established by one hundred and ninety-four (194) Governments to limit or reduce greenhouse gas (GHG) emissions in developing countries, and to help vulnerable societies adapt to the unavoidable impacts of climate change.

The GCF is mandated to make an ambitious contribution to the united global response to climate change given the urgency and seriousness of this challenge. The Green Climate Fund (GCF) is the world's largest climate fund, mandated to support developing countries raise and realize their Nationally Determined Contributions (NDC) ambitions towards low-emissions, climate-resilient pathways. It achieves its goal through a transformative approach of investing across four transitions – built environment; energy & industry; human security, livelihoods and wellbeing; and land-use, forests and ecosystems.

- Transformational planning and programming: by promoting integrated strategies, planning and policymaking to maximize the co-benefits between mitigation, adaptation and sustainable development.
- Catalyzing climate innovation: by investing in new technologies, business models, and practices to establish a proof of concept.
- De-risking investment to mobilize finance at scale: by using scarce public resources to improve the risk-reward profile of low emission climate resilient investment and crowd-in private finance, notably for adaptation, nature-based solutions, least developed countries (LDCs) and Small Island Developing States (SIDS).
- Mainstreaming climate risks and opportunities into investment decision-making to align finance with sustainable development: by promoting methodologies, standards and practices that foster new norms and values.

GCF employs part of its funds to help mobilize financial flows from the private sector to compelling and profitable climate-smart investment opportunities. GCF's country-driven approach is underpinned by capacity-building support through its Readiness Programme that is available to all developing countries. Businesses have an unprecedented chance through climate change events to capitalize on new growth and investment opportunities that can protect the planet as well.

The GCF operates through a network of over two hundred (200) Accredited Entities and delivery partners which work directly with developing countries for project design and implementation. These Accredited Entities include international and national commercial banks, multilateral, regional and national development finance institutions, equity funds institutions, United Nations agencies, and civil society organizations. This open developmental partnership enables the GCF to foster unprecedented coalitions between private investors, development agencies and civil society organizations to achieve transformative change and support harmonization of standards and practices.

GCF has a range of financing instruments that support developing countries through a flexible combination of grant, concessional debt, guarantees or equity instruments to leverage blended finance, and crowd-in private investment for climate action in developing countries. This level of flexibility enables the GCF to pilot new financial structures to support green market creation. The GCF is mandated to invest 50per cent of its resources to mitigation and 50per cent to adaptation in grant equivalent in the most climate vulnerable countries (SIDS, LDCs, and African States).

The GCF programming strategy recognizes that it must scale up both mitigation and adaptation efforts, and aims to leverage synergies and minimize potential trade-offs between adaptation and mitigation. The GCF leverage the risk management capacity of its partners and its own investment, risks and results management frameworks. It accepts higher risks to support early-stage project development as well as policy, institutional, technological and financial innovation to catalyze climate finance and to take risk that is backed up by a robust second level due diligence system.

The GCF has accepted the risk and invested in a project in Barbados called the Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados). This project will create a sustainable, resilient water supply for Barbados by implementing renewable energy solutions, increasing water capacity through rainwater harvesting and water storage, supporting adaptation funding, and raising awareness about climate change and the water cycle. The project will be executed by the Caribbean Community Climate Change Centre (CCCCC) in partnership with the Barbados Water Authority (BWA) and has an estimated lifespan of 30 years. It will be executed at a cost of US$45.2 million with US$27.6 million in grant from the GCF and US$17.6 million in co-financing.

Climate change is expected to affect Barbados through an increasing severity of tropical storms and hurricanes, leading to serious impact on the water supply from groundwater resources. WSRN S-Barbados will increase water security via the installation of photovoltaic solar and backup natural gas power for pumping stations, while implementing climate resilience actions in the water sector, including through a water sector master plan, enhancing infiltration, and by reducing non-revenue water and improving overall water management.

An adaptation fund, set up with operational cost savings from implementing the renewable energy activities, will provide credit lines to implement water conservation actions, whilst other activities will build public awareness to achieve more sustainable water usage.

The 3 R's (Reduce, Re-Use, and Re-cycle) Climate Resilience in Wastewater Systems (3RCReWS) – Project Preparation Facility (PPF) is another project being funded by the Green Climate Fund which was initially proposed to be implemented during the period July 1, 2019 to December 31, 2020. Accordingly, a request for an extension was sought by the CCCCC and the BWA and was granted by the Green Climate Fund (GCF) until June 29, 2021 due to the global COVID-19 impacts.

Achievement of the Sustainable Development Goals (SDGs) and the 2030 Agenda

The 2030 Agenda for Sustainable Development presents an opportunity for Caribbean countries, particularly Barbados, as a Small Island Developing State (SIDS) to optimize the potential benefits of implementing the seventeen Sustainable Development Goals (SDGs). Barbados has evidence of targeted policy formation and a monitoring mechanism on progress that identifies the achievement of its national development goals and their ability to ensure that actual development leaves no one behind, and that different groups of people; inclusive of women, youth, persons with disabilities, older persons and rural dwellers, are all engaged in and benefit from national development efforts. Hence, the prioritization of initial efforts strategically on the implementation of nine SDGs (1,3,4,6,7,8,10,13,17).

In light of this, the agendas of the SDGs and the aspirations of SIDS must be synergized through institutional strengthening to enhance the capacity of national frameworks to guide coherent policy design and integrated cross-sectoral implementation of development objectives. They must assist with strengthening both the national and sub-regional capacity for collection, analysis and dissemination of disaggregated data to facilitate evidence-based decision-making and ensure effective monitoring and measurement of the attained national development goals so that the well-being and livelihoods of persons are sustained and enriched.

The Government of Barbados' intention is to reduce vulnerabilities to climate change across sectors by focusing on mitigating the adverse impact of natural disasters on the economy. This will be achieved through risk-based coastal planning, long-term shoreline planning and beach enhancement, including the promotion of hazard-resilient coastal infrastructure.

The facilitation and implementation of the SDGs provides responses at the individual, community and country levels, and presents an integrated public investment programme founded on principles of sustainable development and climate change resilience. To counter the challenge of climate change Barbados has embarked on a developmental model for the next decade known as the "Roofs to Reefs" Proramme (R2RP) to create the desired sustainable resilience across critical sectors. The "Roofs to Reefs" Programme model will focus on improving the social and environmental circumstances of Barbadians as they seek to adapt and mitigate against the effects of climate change. It will improve the living conditions of vulnerable persons by making them more resilient to the impacts of the worsening climate crisis and related natural disasters, while increasing their ability to recover quickly after a disaster.

Additionally, the R2RP will address the inter-connectedness of land and coastal preservation, and of the natural, built and social environments in strengthening climate resilience. It will improve the housing stock, access to water and sanitation, eradicate pit toilets, promote the use of solar and other green energy options to reduce dependence on fossil fuels and direct line electricity transmissions, improve water quality, and reduce the volumes and impacts of waste (both solid and liquid). This is a development path that will lead to improvements in living conditions and in the terrestrial and marine environments, inclusive of gullies and coral reefs, as well as to create the necessary growth that can be sustained in the future.

The entire COVID-19 recovery agenda has the distinct objective of assisting in the accomplishment of achieving various activities linked to the implementation of the SDGs as it relates to the three dimensions of economic, social and environment. Hence, the Voluntary National Review reporting process of the implementation of the SDGs and the Nationally Determined Contributions are inter-related to the recovery agenda and are critical to the achievement of the 2030 Sustainable Development Agenda. Specifically, Goal 1: End poverty in all its forms everywhere – Target 1.5 – postulates that by 2030 countries would build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme event and other economic, social and environmental shocks and disasters. The timely implementation of the SDGs therefore has a direct association to the activities to be executed under the "Roofs to Reefs" Programme and are correlated to the effective accomplishment of Goal 1 and its targets.

X. ECONOMIC OUTLOOK FOR 2021

The economic growth prospects for the local economy remains stifled by the COVID-19 pandemic despite expectations of an uptick worldwide following a global vaccination drive. The risks to the global recovery prospects, however, are tilted downwards as poor and emerging markets contend with developed nations to procure vaccinations for their populations.

It is anticipated that global institutions will play a crucial role in stemming the vaccine divide and facilitating the creation of a state of operational normalcy in the present COVID-19 environment. It is further anticipated that small island states like Barbados will continue to feel the effects of the pandemic into 2021 given the rise of new waves and variants of the virus. Barbados' critical tourism source markets are already facing new restrictions on movement, albeit with a renewed approach to maintaining economic vitality during those periods. With the downward shift in service-based activities coupled with a declining export base, the prospects for economic growth in 2021 appear dismal.

Shifting export supply towards areas where global demand is growing is expected to increase Barbados' capacity for growth in the short-run. Sectors poised to benefit within the export ambit will be those geared towards the provision of software and application development services, online trading, online entertainment, and cleaning agents, all of which are relatively in the infant industry stages, with the exception of detergents. Growth in these areas should be captured in national statistics to ensure that national accounts stay relevant to the changing times and for the implementation of evidence-based policy development. Non-export business activities such as cleaning services, delivery, home and garden care, and wholesale and retail trade are areas which are expected to weather the economic storm to some degree, but this will not be sufficient to offset depressed economic conditions.

The recovery of the economy post-COVID-19 will become contingent on the economy's value creation process. In addition, the use of technology to advance innovative products and processes, coupled with a supportive policy environment for an innovation-driven reform agenda will be critical to putting the economy back on track to pre-crisis conditions.

The Government's response to the pandemic to-date has been nimble. The front-loaded accumulation of foreign reserves, which was made possible through the implementation of the BERT Plan, allowed the Government to meet its external commitments while focusing more closely on measures to provide relief to the poor and most vulnerable during this recessionary period. However, the risks to the national economic recovery prospects will increase with the protraction of the pandemic.

Ministry of Finance,
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Rescue, Recovery & Reform -

Building Resilience in a Time of COVID-19