



**Government of the
Co-operative Republic of Guyana**



GUYANA

First Voluntary National Review

High-level Political Forum on Sustainable Development
JULY 2019





Ministry of Finance

49 Main and Urquhart Streets, Georgetown,
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COVER - The cover shows the Coat of Arms, Picture compliments of David DeGregorio and the Guyana Tourism Authority, the SDG logo and highlights the SDGs under review in depth at the 2019 High Level Political Forum.

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The compilation of Guyana's First Voluntary National Review of the SDGs was certainly demanding of the time and efforts of many who worked to ensure that the quality of the report accurately reflected the content of the policies and programmes within the 17 Goals. To the many senior technical teams across Budget Agencies who engaged directly and via electronic means to provide information and the private sector and civil society members who participated and actively contributed in the thematic groups for the Green State Development Strategy which fed into the subsequent sessions for VNR - our heartfelt appreciation.

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Sonya Roopnauth
Director, Office of the Budget

FOREWORD



His Excellency Brigadier David Granger
President of the Co-operative Republic of Guyana

I am pleased to present Guyana's *Voluntary National Review* (VNR) – the inaugural report of the Co-operative Republic of Guyana's progress in effecting the Sustainable Development Agenda.

The *Review* traces the progress and explains the challenges faced in expanding prosperity, preserving and protecting the environment and in promoting human development and social cohesion.

The *Review* highlights the progress we have made in implementing the United Nations General Assembly Resolution 70/1 entitled: *Transforming our World: the 2030 Agenda for Sustainable Development* and its predecessor, the United Nations Millennium Declaration.

Guyana attaches the highest importance to strong public institutions, public education, national competitiveness and measures to improve citizens' quality of life. The *Review's* findings are being used to improve policy planning and to enable appropriate interventions aimed at achieving the Sustainable Development Goals (SDGs).

Notable achievements include achieving food security and reducing hunger, increasing access to clean water and sanitation, expanding climate change mitigation measures and improving natural resource management.

Guyana's Green State Development Strategy: Vision 2040 (GSDS) is our roadmap to becoming a 'green state'. *The Strategy* is synchronized with the overarching objectives of the Millennium Development Goals and the Sustainable Development Goals. It provides a framework for ending poverty, prioritizing public education and public health, protecting the environment and promoting renewable energy, inter alia.

The Co-operative Republic of Guyana commits itself to accelerating efforts to achieving the *2030 Agenda for Sustainable Development* within the context of the *Green State Development Strategy: Vision 2040*. We aim at honouring our commitment to ensuring that everyone could have a good life and that no man, woman or child is left behind.

David Granger
President of the Co-operative Republic of Guyana
Georgetown, 2019.07.10

STATEMENT FROM THE MINISTER OF FINANCE



Hon. Winston Da Costa Jordan, M.P.
Minister of Finance

The High Level Political Forum (HLPF), including the Voluntary National Review (VNR), presents the ideal opportunity to share strategies and experiences towards effectively implementing an international strategic development plan that is premised on the Sustainable Development Agenda. Governments and development partners alike, private sector and private citizens, must collectively step up to their required roles and commitments to ensure that we realise a world of peace and prosperity for all our peoples.

Guyana has set itself an ambitious, but realisable, goal of achieving a Green State by 2040, and this long-term development strategy has effectively incorporated all the relevant Sustainable Development Goals (SDGs). Within this context, the Ministry of Finance has been identified to lead the monitoring of Guyana's progress towards achieving the relevant targets of the SDGs via the national budgeting process. Thus, these targets and respective indicators inform our national monitoring and evaluation (M&E) and annual budget frameworks.

I am therefore delighted to support the presentation of the first Voluntary National Review (VNR) of the Government of the Co-operative Republic of Guyana. It seeks to capture the progress made since His Excellency President David Arthur Granger, on September 25, 2015, committed Guyana's support to implement the 2030 Agenda on Sustainable Development. Importantly, it focuses on the challenges to effective implementation that will need to be urgently addressed to ensure the likelihood of achievement of the SDGs by 2030.

Noteworthy, Goal 4 – Quality Education – one of the six focus Goals for this year's HLPF, was appropriately titled "the mother of all goals" by Guyana's Head of State, during his address at the Sustainable Development Summit of the United Nations High Level Political Forum which was held, in New York, in 2015. Guyana has historically been faced with inadequate resources to provide quality education and health care, and to address the vast infrastructure gap, all of which are integral to reducing poverty and inequality across the country, particularly in the hinterland. Sustainable debt management has been a core driver of our development financing. Given the size of the economy, debt servicing had consumed a sizeable proportion of domestic revenues, thereby narrowing the fiscal space to address the demands of the population.

The Natural Resource Fund, established earlier this year, ahead of expected first oil in 2020, has formulated a withdrawal rule to ensure the prioritisation of intergenerational savings, stabilisation of oil price volatility effects and the front loading of critical development spending. However, human capacity deficits, a dearth of data to support effective analysis and threats to security are persistent systemic challenges that will require innovative and definitive solutions, in order to maintain a sustainable development path. As we collectively strive to achieve the 2030 Agenda, through Vision 2040, we must ensure that our energies and resources are devoted to finding practical solutions to the challenges we face.

Guyana is at a critical juncture in its economic development and conducting the VNR has, most importantly, provided us with the valuable opportunity to identify gaps in our data development, planning and implementation frameworks as well as reinforce the multidimensional nature of measuring development. Indeed, if we, as a global community of nations, are serious about leaving no one behind then our institutions – both national and multinational – that support development must reflect this in their policies, systems and approaches.

I am confident that Guyana's first VNR will provide an effective platform for continued stakeholder engagement toward the realisation of the Sustainable Development Goals and Guyana's achievement of a Green State.

A handwritten signature in black ink, reading "Winston Jordan".

Hon. Winston Da Costa Jordan, M.P.
Minister of Finance

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LIST OF ACRONYMS

ADF	Amerindian Development Fund	GII	Gender Inequality Index
AMI	Advanced Metering Infrastructure	GITA	Green Industry and Trade Assessment
ASYCUDA	Automated System for Customs Data	GIZ	Gesellschaft für Internationale Zusammenarbeit
CACs	Community Action Councils	GLSC	Guyana Lands and Surveys Commission
CARICOM	Caribbean Community	GOG	Government of Guyana
CBDRM	Community-Based Disaster Risk Management	GPI	Global Peace Index
CDC	Civil Defence Commission	GRA	Guyana Revenue Authority
CDEMA	Caribbean Disaster Emergency Management Agency	GSDS	Green State Development Strategy: Vision 2040
CDM	Comprehensive Disaster Management	GWLI	Guyana Women's Leadership Institute
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women	HCFCs	Hydrochlorofluorocarbon
CEIT	Centre of Excellence in Information Technology	H.E.	His Excellency
CHPA	Central Housing and Planning Authority	HDI	Human Development Index
CIMS	Crime Information Management System	HEYS	Hinterland Employment and Youth Service
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	HFO	Heavy Fuel Oil
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation	HFLD	High Forest Cover Low Deforestation
CRIC 17	Committee for the Review of the Implementation of the Convention	HIV	Human Immunodeficiency Virus
CSME	Caribbean Single Market and Economy	HLPF	High-Level Political Forum
CT	Computed Tomography	IACM	Inter-Agency Coordinating Mechanism
CWP	Country Work Programme	IAST	Institute of Applied Science and Technology
DANA	Damage Assessment and Needs Analysis	IDA	International Development Agency
DOTS	Directly Observed Treatment, Short-course	IDB	Inter-American Development Bank
DPP	Director of Public Prosecution	IHDI	Intended Nationally Determined Contributions
DRR	Disaster Risk Reduction	INDC	Inequality-Adjusted Human Development Index
ECLAC	Economic Commission for Latin America and the Caribbean	LCDS	Low Carbon Development Strategy
EDWC	East Demerara Water Conservancy	LDOs	Local Democratic Organs
EU	European Union	LED	Light-emitting Diode
FAO	Food and Agriculture Organisation	LTU	Large Taxpayers Unit
GDI	Gender Development Index	M&E	Monitoring and Evaluation
GDP	Gross Domestic Product	MAF	MDG Acceleration Framework
GEA	Guyana Energy Agency	MDGs	Millennium Development Goals
GFC	Guyana Forestry Commission	MICS	Multiple Indicator Cluster Survey
GFCF	Gross Fixed Capital Formation	MOA	Ministry of Agriculture
GHG-I	Greenhouse Gas Inventory	MOF	Ministry of Finance
		MOPI	Ministry of Public Infrastructure
		MPI	Multidimensional Poverty Index
		MRV	Monitoring Reporting and Verification

MRVS	Monitoring, Reporting and Verification System	STEM	Science, Technology, Engineering, and Mathematics
MSC	Marine Stewardship Council	STEAM	Science, Technology, Engineering, Arts and Mathematics
NAREI	National Agricultural Research Extension Institute	STI	Science, Technology and Innovation
NCCC	National Climate Change Committee	TADAT	Administration Diagnostic Assessment Tool
NCDs	Non-communicable Diseases	TB	Tuberculosis
NCS	National Competitiveness Strategy	TIP	Trafficking in Persons
NDCs	Nationally Determined Contributions	TNA	Technology Needs Assessment
NDCs	Neighbourhood Democratic Councils	TRIPS	Total Revenue Integrated Processing System
NDS	National Development Strategy	TVET	Technical, Vocational Education and Training
NGOs	Non-Governmental Organisations	UG	University of Guyana
NGSA	National Grade Six Assessment	UNDP	United Nations Development Programme
NIP	National Implementation Plan	UAE-CREF	United Arab Emirates-Caribbean Renewable Energy Fund
NRF	Natural Resource Fund	UNMSDF	United Nations Multi-Country Sustainable Development Framework
NRFA	Natural Resource Fund Act	UNESCO	United Nations Educational, Scientific and Cultural Organisation
NSS	National Statistical System	UNFCC	United Nations Framework Convention on Climate Change
OAP	Old Age Pension	UNFPA	United Nations Population Fund
OB/GYN	Obstetrics and Gynaecology	UNCLOS	United Nations Convention on the Law of the Sea
OCC	Office of Climate Change	VAT	Value-Added Tax
ODA	Official Development Assistance	VNR	Voluntary National Review
PAGE	Partnership for Action on Green Economy	WHO	World Health Organisation
PAHO/WHO	Pan American Health Organisation/World Health Organisation	WOW	Women of Worth
PARD	Plans of Action for Regional Development		
POPs	Persistent Organic Pollutants		
POWER	People of Worth Entrepreneurial Resources		
PPP	Public-Private Partnerships		
PRSP	Poverty Reduction Strategy Paper		
PV	Photovoltaic		
PWDs	Persons with Disabilities		
RDRMS	Regional Disaster Risk Management Systems		
REDD+	Reducing Emissions from Deforestation and Forest Degradation+		
SCP	Sustainable Consumption and Production		
SDGs	Sustainable Development Goals		
SFFDRR	Sendai Framework for Disaster Risk Reduction		
SLED	Sustainable Livelihoods and Entrepreneurship Development		
SMART	Specific, Measurable, Achievable, Relevant and Time-oriented		
SME	Small and Medium Enterprise		
SNS	Safe Neighbourhood Survey		

1. HIGHLIGHTS

The VNR Review Process

The undertaking of the First Voluntary National Review has been, as expected, a technical, data-intensive process. Guyana has been and remains committed to evidence-based reporting and results-oriented planning. The VNR process aligns with these commitments and further reinforces the importance of strong data systems and institutions. Notwithstanding the late confirmation of Guyana's participation at the High Level Political Forum 2019, the country undertook what should have been a nine to twelve month review process in just under six months. A key consideration in developing the VNR is the desire to comprehensively tell Guyana's story, supported by as much as data as possible.

The review process began with the development of a data collection tool by the Ministry of Finance which was issued in January 2019, to all Budget Agencies. A high-level VNR workshop was also hosted, in March 2019, which sought to improve awareness, understanding and ownership of the SDG Targets, facilitated technical group discussions on indicators and, ultimately, attempted to accelerate the data collection process required to prepare the VNR. Over the subsequent months, the varying capacities across agencies demanded the Ministry of Finance work closely with the Budget Agencies in one-on-one sessions to assist in various capacities including: 1) understanding some of the SDG Targets 2) self-assessing the relevance of existing data and indicators to the SDG Targets 3) developing new indicators based on existing data sets and 4) advising on areas of future focus for planning. The VNR process, including stakeholder engagement, was also supported by the Ministry of Foreign Affairs and the Ministry of the Presidency.

Zero drafts were then prepared by the Ministry of Foreign Affairs as well as a consultant provided by the United Nations Development Programme. The Ministry of Finance then undertook to consolidate, revise and substantially strengthen subsequent drafts. The final stages involved an iterative process between the Ministry of Finance and various government agencies and other stakeholders.

SDG Progress

In 2015, the Sustainable Development Solutions Network (SDSN) published the first SDG Index which ranked countries regarding their initial status on the 17 SDGs. In 2018, Guyana ranked 104 out of 156 countries with a score of 61.9. When the index was first launched in 2015, the country ranked 101 out of 149 countries with a score of 52.4. The SDG Index score signifies a country's position between the worst (0) and best (100) outcomes and can be interpreted as the percentage of achievement. Guyana's overall index score of 61.9 suggests that the country is on average 62 percent of the way to the best possible outcomes across the 17 SDGs. The region's average score is 66.0. The same basket of indicators was used for all countries to generate comparable scores and rankings. It should be noted that differences in rankings may be due to small differences in the aggregate score. This is depicted in the image below.

For Latin America and the Caribbean, the report states that high levels of inequality (SDG 10) are a critical challenge across the region as is the promotion of peaceful societies (SDG 16) with many countries scoring poorly on measures of insecurity and violence. The report also cites the major challenges being faced by the region in the areas of health (SDG 3), education (SDG 4), as well as poor nutrition (SDG 2). The report also recommends that countries in the region promote innovation (SDG 9) and improve employment outcomes (SDG 8). With respect to environmental sustainability, it also recommends that stronger focus across the region in meeting SDGs 12 (sustainable consumption and production), 13 (climate change), 14 (oceans), and 15 (terrestrial ecosystems).

The VNR process reinforced the imperative of strengthening institutional capacity especially data collection systems. While, undoubtedly, progress has been in some SDGs, more data is needed to accurately assess others. Overall, indicators were forthcoming only for about 42 percent of the relevant SDG Targets. Budget Agencies have been encouraged continually, and mandated to prioritise improving the relevant capacities for data generation, collection and analysis, which underpin effective planning, programme delivery and reporting.

Latin America and the Caribbean

▼ OVERALL PERFORMANCE



Multidimensionality and Leaving No One Behind

At the highest level, Vision 2040 articulates the national development objectives of Guyana. Having been recently completed, and cognisant of Guyana's commitment to the Agenda 2030, Vision 2040 is aligned to the SDGs. As such, implementation of Vision 2040 and achievement of its targets will, in turn, mean that Guyana is achieving the SDGs. The SDGs have been mapped against the development objectives

Within national development programmes, current and past, Guyana has continuously prioritised support to vulnerable groups such as the differently-abled, youth and the elderly,

among others. Public programmes have been geared not just to benefit the masses but also to ensure no Guyanese is left behind. In demonstration of this commitment, policy priorities are explicitly discussed in the National Budget for each of the aforementioned groups. Specific initiatives implemented include increasing the old aged pension, improving education delivery, providing entrepreneurship support to young persons, indigenous peoples and other groups, and strengthening the national response to communicable and non-communicable diseases as prioritised by the disease profile of the country.

Areas of Support

Given Guyana’s socio-economic and geographical context, elaborated throughout this Review, the country will require continued support to access low-cost financing instruments as well as technical and expert assistance. The investments in infrastructure and education required remain significant, especially in the context of the dichotomy between the hinterland and the coast. Additionally, partnerships to support improving the quality of the education sector are required given the varying outcomes experienced over recent years. In light of the economy-wide impact of education, this is a leading priority and a key contributor to Guyana’s sustainable development.

Strong legislative frameworks and accelerated institutional strengthening are also a priority in the context of upcoming changes in the gross domestic production profile and the commitment to avoiding the Dutch Disease.

Box 1.1 - Key SDG Highlights

SDG Good Practices

1. Strong national ownership of initiatives;
2. Integration of SDGs into existing national planning and budgeting systems;
3. Costing of the transformative initiatives outlined in national development strategy, which is aligned to the Agenda 2030, will allow for determining the costs of achieving the associated SDGs; and
4. Development of a monitoring and evaluation framework will allow for effective tracking, planning and implementation of programmes and the SDGs within the context of the national development framework

SDG Lessons Learned

1. The lack of strong data systems can hamstring development;
2. Strengthening public institutions is paramount to effectively implement public policies and deliver public services; and
3. Collaboration among stakeholders is critical to ensuring sustainability and implementation of development initiatives.

SDG Challenges

1. Inadequate financing given the limited tax base of a small country that covers a relatively large land area;
2. Insufficient educational outcomes affect institutional strength and also limit capacities for science, technology and innovation required to drive diversification and productivity improvements; and
3. Inadequate data to support planning and policy formulation and targeted interventions

2. INTRODUCTION

The Co-operative Republic of Guyana, as part of the global community recognises the importance of international reporting, and in this regard, in 2018 signalled its intention to present its first Voluntary National Review at the 2019 High Level Political Forum. Guyana's VNR presents a detailed report of our progress towards achieving the SDGs over the period of 2015 to 2018.

Guyana's vision for sustainable development is elaborated through the eight integrated and interconnected development objectives of the Green State Development Strategy – Vision 2040. This vision is further elaborated through the eight integrated and interconnected development objectives of Vision 2040. This long term development strategy places emphasis on ensuring a better quality of life for all through human capital development, protection of the natural environment and advancing environmental sustainability, and pursuing the path to a prosperous economy that is sustainable, low-carbon, resilient, and provides equality of opportunity to all, thereby advancing a green economy. The concept of “leaving no one behind” fully resonates with Guyana's development pathway, as it allows us to address issues of balancing spatial and hinterland development and reducing inequalities, in order to alleviate all forms of poverty and promote the empowerment of women, youth and other vulnerable groups.

Figure 2 - Guyana's Development Objectives and its relation with the SDGs



Within the current national context, Guyana has prioritised the SDGs that are immediately relevant to accelerating our social and economic development. Thus, our VNR emphasises education, health, infrastructure and innovation in the national development framework as well as the urgent need for significant investments in these sectors. Human capital, as well as, finance are main inputs to development, and with a population of some 745,000 inhabiting 214,970 km², our low population density is evidence that there is great need for skilled labour and innovative financing mechanisms, if Guyana is to achieve its full potential. The need to improve the educational and health systems, in order to improve the outcomes for these sectors, and which underlie the realisation of so many of the SDGs, are central to the pace of Guyana's development trajectory. Significant improvement in education and health outcomes, combined with much needed reduction of the large infrastructural gap must be addressed frontally, as Guyana seeks to bridge the gap between its hinterland and coast. Investments in research and development to further innovation must also be prioritised, as Guyana seeks to compete in the international marketplace.

It is within the context of Vision 2040 that Guyana's VNR is presented. The VNR outlines the process and key considerations for preparation of this report, and highlights our main achievements regarding the relevant Targets of the 17 SDGs and the key initiatives towards progress. Further, it identifies the indicators that are being used to track our progress, discusses our challenges, as well as, what we have done and what is needed to overcome them. Finally, it summarises the main lessons that have recorded in the process of implementing various initiatives that are aimed at advancing the national development agenda in which the SDGs are incorporated.

The VNR is timely, as it provides a baseline of Guyana's development status prior to the full implementation of Vision 2040, and permitted some stocktaking on core development issues with respect to global commitments, and to look to other nations with similar experiences to draw on their lessons, as we set our development targets, which will be explicitly outlined in the M&E Framework of Vision 2040.

Guyana is pleased to present its Voluntary National Review of its progress towards the achieving of the SDGs at the 2019 High Level Political Forum and looks forward to the opportunities for partnerships and collaboration with all stakeholders this report will provide.

3. OVERVIEW OF THE CO-OPERATIVE REPUBLIC GUYANA



Guyana, officially called the Co-operative Republic of Guyana, is located on the northern mainland of South America. It is 214,970 km² in area, and is bordered by the Atlantic Ocean to the north, Brazil to the south and southwest, Venezuela to the west, and Suriname to the east. Guyana is the third-smallest country on mainland South America after Uruguay and Suriname, and the only English speaking country in South America. It is part of the Caribbean region, due to its strong cultural, historical, and political ties with other Anglo-Caribbean countries and the Caribbean Community (CARICOM).

Guyana is a sovereign state, governed by an Executive President, and the arms of government include the executive, legislative and judiciary. General and regional elections in Guyana are constitutionally due every five years, with the government being elected through a proportional representation system. Guyana has ten administrative regions, nine towns and three counties that are located in two meso regions: coastland and hinterland. The coastal plain, which includes the capital city – Georgetown, represents the smallest physical geographic area of Guyana, while the hinterland region comprises more than two-thirds of the land area.

Guyana's population is approximately 745,000¹ with a median age of about 25. According to the 2012 Population and Housing Census, youths (<35 years) represent almost 69 percent of the population, with females making up at least 51 percent of all youths in the country. Guyana's population is multi-ethnic and comprises East Indians, Africans, Chinese, Portuguese, and Europeans, the nine indigenous groups – the Wapishanas, Arecunas, Macushis, Warraus, Arawaks, Caribs, Akawaios, Patamonas, Wai-Wais and mixed races. With 4 people per km², Guyana has one of the lowest population

densities in the world. However, approximately 90 percent of the population reside on the 459 km long coastal strip that is about 1.5 metres below the mean high tide level of the Atlantic Ocean. The remaining 10 percent of the population inhabit the hinterland that is relatively difficult to access, but provides the natural resources for most mining, logging and subsistence agricultural activities. The percentage of the population living in urban areas is over 25 percent.

Guyana's youthful population presents an opportunity to advance its efforts towards the achievement of sustainable development. Importantly, the Government of the Co-operative Republic of Guyana's vision for youth is to allow for "young people to be united, educated, trained, safe, happy, healthy and integrally involved in the decision making processes, while enjoying equality of opportunity and equal access to the resources of our country so as to be politically, economically and socially empowered²". However, according to the 2017 Labour Force Survey, unemployment rate is 12.2 percent³, with youth unemployment (15 to 24 years old) accounting for about 22.9⁴ percent of this total. About 60 percent of those employed are in the services sector, with the agricultural sector employing about 13 percent. Further, according to the Guyana Labour Force Survey, youth not in employment, education or training (NEET) account for over 35 percent of the total youth population.

With respect to human development, Guyana's Human Development Index (HDI) value for 2017 was 0.654 — which puts the country in the medium human development category — positioning it at 125 out of 189 countries and territories. Between 1990 and 2017, Guyana's HDI value increased from 0.538 to 0.654, an increase of 21.5 percent. Guyana's 2017 HDI of 0.654 is above the average of 0.645 for countries in the

1 Source, Bureau of Statistics, 2019

2 See Guyana's National Youth Policy, 2016

3 Labour Force Survey 2017, Bureau of Statistics

4 Labour Force Survey 2017, Bureau of Statistics

medium human development group, but below the average of 0.758 for countries in Latin America and the Caribbean.

The 2016 State of the Environment Report notes that the proportion of people living in extreme poverty in Guyana fell from 28.7 percent to 18.6 percent between 1993 and 2006, and that during the same period, the percentage of people living in moderate poverty fell from 43.2 percent to 36.1 percent. While the incidence of poverty has declined since 1999, it remains particularly marked among the Indigenous and rural interior populations, children and young people below 25 years old (National Health Strategy for Guyana 2013-2020).

Guyana's life expectancy at birth, in 2017, stood at 68.2 years overall - 65 years for males and 71.7 years for females, while mean years of schooling stood at 8.4 years and expected years of schooling at 11.4 years for reporting period. Guyana's Domestic Product (GDP) per capita stood at US\$4,127 in 2017 increasing marginally from US\$3,741 in 2015⁵. Notwithstanding many positives, a further analysis of the United Nations Development Programme's (UNDP's) Human Development Index (HDI) shows the presence of inequality, unequal distribution of economic wealth, and shortcomings in the education sector in Guyana.

The Gender Inequality Index (GII) reflects gender based inequalities in three dimensions, reproductive health, empowerment and economic activity. Guyana has a GII value of 0.504, ranking it 122 out of 160 countries in the 2017 index.

Natural resources and agriculture are the two main sources of economic activity for Guyana. Agriculture, forestry, fisheries and mining account for about one third of Gross Domestic Product (GDP). Bauxite, gold, sugar, rice, shrimp, and timber are the main contributors to export earnings, with gold accounting for about 48 percent of total export earnings. Guyana is richly endowed with mineral resources wherein most of the country's mineral wealth lies in forested areas. Geologically, in recent years has discovered large petroleum deposits within the seabed of its ocean waters, thereby opening up new, expanding opportunities in the extractive and productive industries.

Guyana's economy grew at an average of 3 percent annually between 2015 and 2017, with growth of 4.1 percent observed in 2018 largely driven by higher production of bauxite, livestock, forestry and other crops, as well as increases in construction, manufacturing and services (Bank of Guyana, 2019). Since 2002, GDP has grown, steadily. With respect to sector contribution to real GDP, agriculture contributed 16.6 percent in 2017, followed by mining at 13.7 percent for the same

period, while manufacturing stood at 6.6 percent. However, expanding activities in the services sector, including increased wholesale and retail trade, transportation and storage, public administration, information and communication, education, health and social services, real estate activities and other services, accounted for 53.6 percent of real GDP at the end of 2017 (Bank of Guyana, 2018).

The Government of the Co-operative Republic of Guyana continues to pursue debt and fiscal sustainability as external debt remains sustainable (Ministry of Finance, 2016). Public debt to GDP ratio averaged 58 percent from 2008 to 2017, with a low of 48 percent in 2015 and a high of 65.3 percent in 2010. Additionally, inflation has remained subdued post 2012; and continued to remain low at 2.1 per cent in 2017.

Guyana is considered a Small Island Developing State (SIDS) due to its coastal vulnerability, and as in the case of other SIDS, Guyana faces special disadvantages associated with small size and remote areas. These factors render SIDS economies highly vulnerable to exogenous factors – a condition that threatens their economic development prospects. Guyana is highly vulnerable to climate change, and rising sea levels, as well as, a number of other resulting threats. Sea level is expected to rise some 40 cm for Guyana by the end of the 21st century (CRSAP, 2014), and the coast repeatedly experiences of flooding from the Atlantic Ocean usually occur during the rainy seasons.

Guyana is characterized by Atlantic beaches to the North, staggering mountain ranges to the West, and rainforests with an abundance of biodiversity and wildlife and savannahs to the south. Guyana has an extensive forest cover and this is, unarguably, one of its most valued natural assets, covering more than 87 percent of the country, with only 16 percent of the land inhabited by the population. This represents some 18 percent of the world's tropical forest. Guyana's rich forests cover makes it one of the 4 regions of the world that makes up the Guiana Shield. Notably, it has a historically low deforestation rate of approximately 0.1 percent to 0.3 percent per annum, and as such, is classified as a High Forest Cover Low Deforestation Rate (HFLD) country (NORAD, 2011).

Guyana's floral diversity is estimated to include over some 8,000 species (inclusive of ferns, mosses inter alia) with approximately 6,500 of those species identified, and 50 percent endemic. There are approximately 1,815 known species of fishes, amphibians, birds, reptiles and mammals. Fish are very diverse, with 352 species of freshwater bony fishes and 501 species of marine fishes (EPA Guyana, 2010; CBD, 2018).

It is within this socio-economic and environmental context that Guyana's Voluntary National Review is undertaken.

5 See Appendix I, Budget Speech 2019, Ministry of Finance

4. METHODOLOGY AND PROCESS FOR PREPARATION OF THE FIRST VNR

The development of the VNR commenced on February 13, 2019, with an Inter-Agency Coordinating Mechanism (IACM) being established by the Ministry of Foreign Affairs. The Mechanism comprised key institutions that would play a crucial role in preparing the review, including data provision. These included the Department of Environment, the Ministry of Finance, the Bureau of Statistics, the Office of Climate Change and the Ministry of Education, among others. The Mechanism unanimously selected the Ministry of Finance to spearhead the VNR process given their role of inter-sectoral coordination and existing work integrating the SDGs into the national planning and budgeting framework including, data collection initiatives to support reporting on national performance targets which included the relevant SDGs.

The VNR process benefitted from some of the prior consultations in 2018 that were part of the country's national development planning process to create Vision 2040.

Prior to formally commencing the VNR process, there was an immediate recognition of the data-intensiveness of reporting on the SDGs and, as such, a data collection tool was developed. It recognised the importance of clearly understanding and establishing the link between an SDG Target and its corresponding indicator. It also allowed for the prioritisation of national indicators, in cases where either data was not available to report on UN indicators or where national indicators were better suited to the Target and/or the Guyana context. This was paramount since it reduces the need to create new indicators unnecessarily, especially as new indicators may require the creation of new systems and expanded work programmes – a potential challenge to some public institutions with capacity constraints. Finally, the tool, SDG Indicator Collection and Assessment Tool (ICAT), required that the Ministry of Finance, as the hub for the National Monitoring and Evaluation Strategy, validate each indicator submitted.

The ICAT was the main mode of collecting the data for the relevant indicators for each SDG Target. Through the process of issuing this data request to Budget Agencies, the varying capacities to respond to the data needs of SDG reporting was revealed. As such, the Minister of Finance and the Minister of Foreign Affairs convened a National High-Level VNR Workshop, on March 18, 2019, in an attempt to accelerate the data collection process by bringing together Permanent Secretaries and other Heads of Budget Agencies as well as key

senior technical officials to ensure a common understanding of the SDG Targets, support indicator identification and assess data availability across agencies. Subsequent to this, one-on-one workshops were conducted by the Ministry of Finance with Budget Agencies providing further technical support to assist in assessing their data availability and articulating the relevant indicators.

To support the data collection, Budget Agencies were also required to submit accompanying and relevant narratives. This also allowed stakeholders to reflect on the SDGs, key achievements, issues, challenges and lessons learned and potential risks and allowed for documenting these. In the preparation of the report, the narratives and data collected were utilised to undertake the review of each SDG. As the text of the VNR was crafted, agencies were continuously engaged to ensure accuracy and refinement.

Zero drafts were prepared with the support of the Ministry of Foreign Affairs and United Nations (UN), having completed consultations with private sector and civil society. The latter was facilitated by the Department of Environment. As far as possible, the review of each goal utilised the data available, provided policy context, and identified the challenges and lessons learned. The Ministry of Finance revised and strengthened the technical content of the report in an iterative process with supporting line ministries. The Ministry of Finance and UN Country teams supported the process of reviewing the draft VNR document. However, it is important to highlight that UN support to hire an additional pair of hands resulted from the slim government bureaucracy, which meant that the drafting team comprised of officers who were already tasked with their own work programmes, and this had to be done simultaneously. This poses a serious challenge for countries with slim technical bureaucracies.

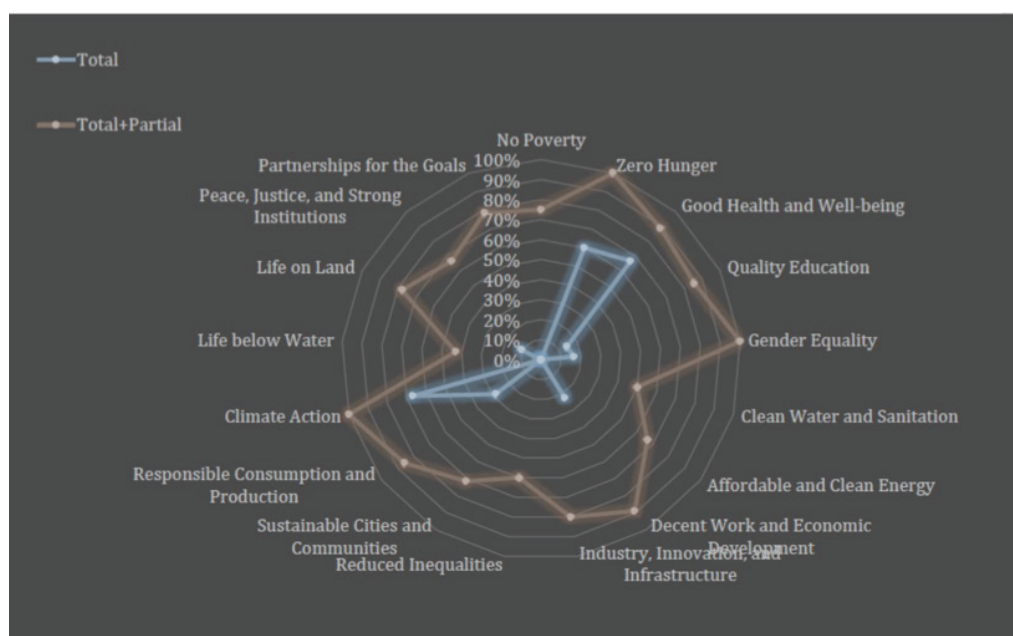
One of the strong positive outcomes of the VNR process was the discussions with and among various sector Ministries that allowed for several core issues to be highlighted for further examination. It is expected that these actions will result in initiatives being proposed in the upcoming Budget 2020 to support the closing of critical data gaps, institutional strengthening and needed reforms to support the realisation of the relevant SDGs going forward to meet Agenda 2030.

5. POLICY, ENABLING ENVIRONMENT AND MEANS OF IMPLEMENTATION

The process for integrating the SDGs into national systems and implementation has largely been through harmonisation with Vision 2040. Given their alignment, reference to progress and development of the Vision should be construed as progress with regard to the SDGs. The articulation of Vision 2040 has entailed a very robust and consultative process. This process rested on the work of Multi-Stakeholder Expert Groups (MSEGs) which comprised representatives from the public service, academia, civil society, youth, private sector, non-governmental organisations and development partners, among other groups. As the MSEGs elaborated Vision 2040, they were sensitised on the tenets of Agenda 2030 and the SDGs relevant to their thematic areas. Additionally, Vision 2040 benefited from public consultations in all administrative regions of the country, resulting in a strategy that is truly inclusive and representative; a strategy truly Guyanese.

In order to determine Guyana's level of preparedness for the implementation of the SDGs, the UN Rapid Integrated Assessment tool was conducted in 2017. For this assessment, 33 documents were assessed which indicated of the relevant 112 Targets, 89 or 79 percent were aligned to existing policies. Additionally, in the preparation of this VNR, government agencies, as well as private sector and civil society, were engaged. While most stakeholders were aware of the SDGs, a core team of ministries sought to increase wider engagement and ownership by dedicating one-on-one time to ensuring that key entities better understood the SDGs and, importantly, their accompanying Targets and potential indicators. This allowed, particularly for government agencies, to better understand what data is required and the potential scope of the programmes they may need to include in their plans. Along with alignment to Vision 2040 and the robustness of the VNR process, the integration of the SDGs into the national budget process all serve to reinforce an undoubtedly strong, intrinsic, national ownership.

Figure 3 - Alignment of National Policies to the SDGs - Guyana's Rapid Integrated Assessment, 2017



Since 2017, the national budgeting process has required government agencies, in the articulation of their budget proposals, to explicitly identify the potential for alignment to Vision 2040 and the SDGs when proposing public programmes and investment projects. The national budget is the key means of implementation for Vision 2040 as well as the SDGs and other policy priorities, though it should be noted that sectoral and regional strategies, when being developed, should also align to the tenets of Vision 2040 and the SDGs. In the same year, the Ministry of Finance conducted a sensitisation session for all Budget Agencies on the SDGs and how they should go about conceptualising integration. The following year, a SDG mapping was done to assist agencies in identifying the Targets

applicable to their respective areas of responsibility, as well as the other agencies who share responsibility for achieving the Target. This served to further promote ownership and emphasises the need for collaboration among government agencies in order to achieve the Goals and respective Targets. Additionally, the budget process mandates data disaggregation by sex and location to ensure that policies and programmes are appropriately targetted to the relevant areas and groups and that no one is left behind. It is evident that the Agenda 2030 has been significantly integrated in the national planning framework, thereby creating a solid platform for implementation.

Figure 4 - Excerpt from Budget 2020 Call Circular

5.2.4 Expenditure: A detailed written review of expenditure for the first six months and quarterly thereafter for all programmes under the Agency's purview is required. **Reviews should be performance-based and derived from work plans.** Since the cash flow reflects a costing derived from the work plan, they must be correlated.

A useful review report must include:

- how the activities undertaken to date contribute to the policy objectives of the Agency, the sector strategy and where applicable achievement of the relevant *Sustainable Development Goals*;
- factors contributing to the realisation of targets;
- factors contributing to the non-realisation of targets;
- an analysis of the problems encountered, and proposal(s) which detail out a plan of action, within the scope of the agency's allocation, for addressing the perceived problems; and
- projections for the ensuing quarters.

6. PROGRESS ON GOALS AND TARGETS



SUSTAINABLE DEVELOPMENT GOAL 1:

END POVERTY IN ALL ITS FORMS EVERYWHERE

Context and Key Achievements

Continuing its commitments made under the Millennium Development Goals (MDGs), the issue of poverty eradication remains a priority for Guyana. While significant progress was observed between 1993 and 2006¹, the lack of data at the time of conclusion of the MDG initiative in 2015 did not allow Guyana to determine a tangible outcome. This resulted in Guyana being unable to conclusively establish whether MDG Target 1A – relating to poverty – had been realised. This data constraint continues to pose a significant challenge for targeted interventions.

In the interim, the Multiple Indicator Cluster Survey (MICS) provides data on a wide range of indicators on the situation of children and women. In the absence of valuable poverty statistics, MICS plays an integral role in identifying cross-sectoral strategic objectives, as well as informs planning and implementation of development programmes and projects. Guyana carried out its fifth round of MICS in 2014 which, in addition to collecting and generating data, was aimed at monitoring progress towards the MDGs.

In 2016, Guyana launched its State of the Environment Report with the support of the United Nations. While primarily environmental, the report provides some key and recent data with regard to poverty. The Report notes that the proportion of citizens living in extreme poverty fell from 28.7 percent to 18.6 percent between 1993 and 2006, and that during the same period, the percentage of people living in moderate poverty fell from 43.2 percent to 36.1 percent².

While the incidence of poverty has declined since 1999, it remains particularly marked among indigenous and rural populations, children and young people below 25 years old³. In 2006, 33.7 percent of people aged 16-25 were under the poverty line, almost 10 points more than persons older than age 41 (24 percent below the poverty line)⁴. Almost half (47.5 percent) of all children under the age of 16 belong to poor families. Children in poverty tend to have poor health

and are less likely to perform well in school, acquire a good formal education, find and keep good-paying jobs⁵. Further, children living in poverty are likely to maintain persistent cycles of poverty in the next generation, making child poverty a determinant in present and future levels of poverty.

Table 1 - Select Poverty Indicators Guyana, Bureau of Statistics and 2018 HDI Statistical Update

Indicator	Value
Multidimensional Poverty Index (MPI) (2014)	0.014
Population in multidimensional poverty, headcount (%)	3.4
Population in multidimensional poverty, headcount (thousands) (projection for 2016)	26
Population in multidimensional poverty, intensity of deprivation (%)	41.9
Population vulnerable to multidimensional poverty (%)	5.9
Unemployment, total 2018 (% of labour force)	13.8
Vulnerable employment (% of total employment)	29.7
Youth not in school or employment (% ages 15-24)	35.2

It is important to note that socio-economic deficiencies are generally more prevalent in the indigenous peoples segment of vulnerable populations. Additionally, it is costly to provide essential infrastructure and basic human and social services to the sparsely populated rural areas where they live. Other vulnerable groups include: the aged; persons living in large households; the homeless; the disabled; and youth, especially unemployed or out-of-school young people. According to the Guyana Bureau of Statistics, unemployment was estimated at around 12.2 percent in the fourth quarter of 2017⁶, and various employment schemes and initiatives and investments continue to be promoted to generate employment opportunities.

1 2005-2006 Household and Budget Survey, Bureau of Statistics

2 Taken from Millennium Development Goals – Guyana Progress Report 2011, see http://www.guyana.org/MDG_Full_Report.pdf

3 National Health Strategy for Guyana 2013-2020

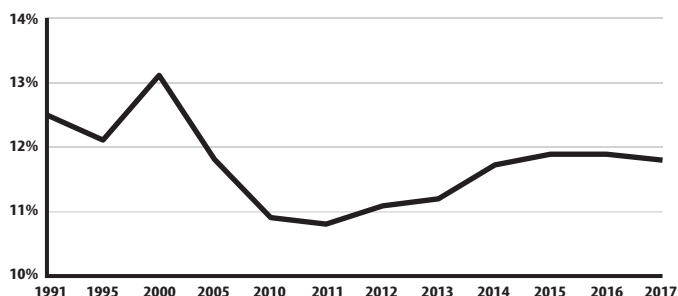
4 State of the Environment Report (2016) – Guyana

5 Taken from Guyana Budget and Policy Institute – Poverty Facts, August 2017 http://gbpi.institute/wp-content/uploads/2017/08/FS_Poverty_20.8.2017.pdf

6 Bureau of Statistics, Guyana Labour Force Survey, March 2018.

Guyana's Human Development Index (HDI) grew marginally from 0.651 in 2015 to 0.654 in 2017⁷ — which put the country in the medium human development category — positioning it at 125 out of 189 countries and territories. Between 1990 and 2017, Guyana's HDI value increased by 21.5 percent from 0.538 placing it above the average of 0.645 for countries in the medium human development category. These developments are underpinned by government's commitment to strengthening social services and protection systems. Of note, over the last five years, non-contributory Old-Aged Pension has also increased by 49 percent, and Public Assistance by 36 percent, with over 50,000 pensioners paid monthly, and over 9,000 persons receiving public assistance monthly. Further, the minimum wage increased by a marked 62 percent, while the non-taxable income threshold increased by 20 percent over the same review period.

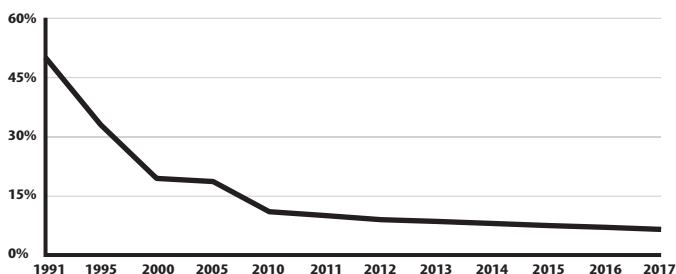
Figure 3 - Guyana's Unemployment Rate, Source: 2018 HDI Statistical Update



Additionally, the Multidimensional Poverty Index (MPI), in 2014⁸ was 0.014, with 3.4 percent of the population categorised as multidimensionally poor, that is deprived in education, health and living standards. An additional 0.9 percent of the population is vulnerable to poverty, but only 0.7 percent is estimated to be in severe poverty. The MPI recognises the inadequacy of traditional measures of poverty which largely focus on income and aims to utilise a more encompassing methodology to improve the accuracy of the metric.

The proportion of total government spending on essential services has increased from 29 percent in 2015 to 34 percent in 2018. This has allowed for the expansion of livelihood programmes which include the Hinterland Employment Youth Services Project (HEYS), Sustainable Livelihoods and Entrepreneurship Development (SLED) Programme and

Figure 4 - Guyana's working poor at PPP\$3.10 a day (% of total employment), Source: 2018 HDI Statistical Update



the Amerindian Development Fund ADF), particularly for school drop-outs and low academic achievers. Programmes like these focus on promoting entrepreneurship and skills-training. A total of 1,317 persons benefitted from the SLED intervention. Additionally, the School-Feeding Programme has been expanded across the country at the primary level with over 80,000 students benefitting in 2018, compared with approximately 62,800 in 2015 (SDG Target 1.a).

The ADF provided support and grants of US\$25,000 each to 174 communities (ADF I - 26 communities; ADF II - 148 Communities) for business ventures in areas such as: farming; furniture workshop and wood processing; transportation; livestock; village shops; guest house/eco lodge; marine fishing; aquaculture; and fuel depot. A total of 1,662 (1,068 males and 594 females) employment opportunities were created under the project. Women made up 55 percent of the persons who participated in the preparation of implementation plans for the Community Development Plans (CDPs). A total of 2,886 women out of a total 5,256 persons participated in this initiative. Additionally, 599 (48 percent) females out of 1,259 persons were trained in topics such as financial accountability and management, marketing and work plan preparation and are assisting in the management of their community business.

Additionally, over the past three years, G\$1.6 billion was spent on HEYS, which saw about 4,000 youths trained mainly in Mathematics, English Language, Agriculture, Ecotourism, and Business and Budget Planning, across 215 hinterland communities. The participants were given small grants to support their financial capability to undertake small business ventures. Of the total amount, in 2018, 1,965 youths were trained, 638 males and 1,327 females.

⁷ See Guyana Human Development Indices and Indicators: 2018 Statistical Update available at http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/GUY.pdf

⁸ Available at <http://hdr.undp.org/en/composite/MPI>

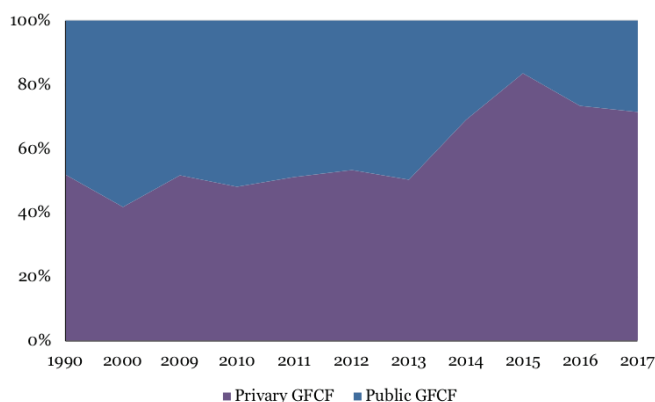
Challenges, Emerging Issues and Addressing the Way Forward

In July 2016, Guyana was designated an upper middle-income country and is grappling with the transitional syndrome – significantly reduced access to critical concessional financing, traditionally relied on to support financing gaps. It is important for the international community to recognise poverty as a multidimensional computation and not merely an archaic per capita GDP. By acknowledging that the SDGs are interrelated, we complement the knowledge that poverty is multidimensional and therefore to attempt to measure it with a single variable indicator is palpably inconsistent. Moreover, the implications of this income graduation include the constriction of financing for poverty-related livelihoods initiatives⁹. This situation is further complicated due to the dichotomy between the coast and the hinterland whereby in the latter, as a result of the cost of transportation and limited transportation network, the marginal cost of delivering goods and services can be high. While opportunities for cooperation and support from the South exist, it is largely in the form of support to capacity development or as catalytic funding for pilots.

Understanding Guyana's context requires recognising that accelerating domestic resource mobilisation is constrained by its limited tax base due to its small private sector. Using data from the World Bank on total and private gross fixed capital formation (GFCF), we see that historically, half of the GFCF was public, but this has increased over time (see Figure 3 below). As such, access to affordable financing will remain key and critical. Having embedded the SDGs to the national planning framework, it is important for Guyana to be able to access affordable financing in order to effectively implement poverty reduction initiatives, among others.

Guyana's last poverty assessment was undertaken about 13 years ago. It is critical for the country to have current data on poverty to be able to better develop, target and implement future social protection and inclusion policies and strategies. The National Statistical System, comprising the Central Statistical Office (Bureau of Statistics) and a preponderance of government departments, is both resource and data challenged. In particular, the Bureau is limited in skill-sets in the area of data analysis. This area is further compounded by the Bureau's inability to access timely and up to date administrative data to generate relevant statistics. Further, the Bureau is currently operating with 67 percent of its total staff

Figure 5 - Guyana's Private and Public Gross Fixed Capital Formation (1990-2017), Source: World Bank, World Development Indicators



strength. This level of constraint has severely hampered the production and delivery of statistical outputs and services. As recommended by the National Strategy for the Development of Statistics it is vital for the Bureau to fill the existing personnel gaps.

Under the auspices of the 2018 National Strategy for the Development of Statistics, it has established a Poverty Analysis Unit tasked with generating relevant poverty statistics and data – an area where assistance will be needed to build capacity. The operationalisation of this Unit is a prerequisite for the planning and conducting of any future Enhanced Country Poverty Assessment. The Bureau will continue to undertake its scheduled surveys, which will provide some poverty-related data, inter alia. These include the Labour Force Survey, the Household Budget Survey/Living Conditions Survey and the Multiple Indicator Cluster Survey, as well as an Agriculture Census which is expected to be completed by December 2021. The decennial Population and Housing Census is scheduled for the year 2022.

Lessons Learned

The coordination of multi-sectoral interventions and strong data systems is required to facilitate the robust analysis that will aid in effectively identifying the causes of poverty. This is critical to supporting targeted, pro-poor interventions, through guided expenditure allocations. The newly formulated national development plan – the Green State Development Strategy: Vision 2040 – provides a clear, long term roadmap for eradicating poverty and improving livelihoods through job creation and improved social conditions stemming from

⁹ According to the IMF, concessional financing supports low income countries in achieving, maintaining, or restoring stable and sustainable macroeconomic positions consistent with strong and durable poverty reduction and growth. <https://www.imf.org/en/About/Factsheets/IMF-Support-for-Low-Income-Countries>

investing in a more diversified economy – value-adding agro-processing, sustainable mining, renewable energy, eco-tourism, business process outsourcing and infrastructure development. Further, strengthening monitoring and evaluation systems will help to ensure that funding is effective in addressing poverty reduction while attaining value for money.

Additionally, it is clear that situational contexts and national priorities need to feature more prominently in the discourse at both the regional and global levels. Development assistance and financing mechanisms should be sufficiently flexible, accommodating and responsive to allow countries to take a tailored path to growth and development, one that each country determines is best suited to their needs and socio-economic, political, environmental and geographical circumstances.

Table 2 - Guyana's Poverty Indicators, Ministry of Finance

Target #	Indicator	2015	2016	2017	2018
1.3	Number of the persons aged 65+ that access Old Age Pension	54,271	54,180	55,330	58,536
1.3	Number of persons accessing Public Assistance	17,230	13,312	14,197	15,391
1.3	Change in public sector minimum wage (percent)	17.1	10.0	9.1	7.0
1.3	Change in national minimum wage (percent)	-	13.0	11.8	-
1.3	Change in Old Age Pension (percent)	36.0	7.0	4.4	2.6
1.a	Proportion of total government spending on health (percent)	11.2	11.6	12.1	12.6
1.a	Proportion of total government spending on education (percent)	15.6	16.3	15.4	15.6
1.a	Proportion of total government spending on social protection (percent)	2.1	6.0	6.0	6.4



SUSTAINABLE DEVELOPMENT GOAL 2:

END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

Context and Key Achievements

Agriculture remains an important productive sector of Guyana's economy, contributing approximately 26 percent of export earnings and employing about 17.8 percent of the labour force in 2017 (Ministry of Agriculture). Guyana has vast tracts of productive land which continue to present many opportunities to advance both growth in food security, and sustainable agriculture. Notwithstanding, the agricultural sector, in recent years, has seen a steady decline in contribution to GDP; the sector's contribution was 19.4 percent in 2015, and by 2018 it declined to 16.1 percent of GDP. The sector has been driven mainly by primary production of rice and sugar. However, between 2015 and 2016, there were significant developments within both industries, including the loss of preferential access to export markets, and the restructuring of the sugar industry, which involved the closure of multiple estates. Cognisant of this reality, Vision 2040 articulates to accelerate the diversification of the agriculture sector, and promote practices for sustainable, resilient, and value-added processing to achieve overall economic development.

"Vision for Agriculture 2020" is the first overarching agriculture sector strategy and is centred on sustaining economic and social prosperity. It outlines a roadmap that aims to ensure that Guyana achieves its ambitions as a food and nutrition secure nation and as a major contributor to food and nutrition security within CARICOM. To this end, it sets out several core focus areas including food security, improving accessibility to fibre and nutritious food, developing alternative fuel sources and promoting diversification, particularly in fashion, health products, crafts and furniture. The strategy is near the end of its term and an end of term evaluation is expected to be conducted which will feed into a new strategy. The new strategy will be aligned to and draw from the green economy principles of the national development plan – the GSIDS – for production transformation and agriculture diversification, specifically toward improving 'value added' and 'development of value chain' approach for the competitive sector.

Over the years, public expenditure in agriculture has increased steadily, growing from G\$22.4 billion in 2015 to G\$25.3 billion in 2018 (Ministry of Finance). These investments appear to have resulted in improvements in agricultural productivity with the agriculture orientation index improving from 0.53 to 0.63, over the same period. The Index is a signal of the efficacy of public investments in generating additional GDP (SDG Target 2.a). Additionally, Guyana has been able to secure increased

official development assistance to the sector, increasing from G\$1.9 billion, in 2016, to G\$2.5 billion, in 2018, targeting various aspects including drainage and irrigation, rural infrastructure and enterprise development (SDG Target 2.a).

Notwithstanding the aforementioned improvements, the downsizing of the sugar industry as well as the vulnerability of rice export arrangements have caused the agriculture sector value-added to decline from G\$112.7 billion in 2015 to G\$102.5 billion in 2018. The traditional dominance of rice and sugar within the agriculture sector has re-emphasised the need to intensify diversification efforts and value-added production, especially as the growth in 'other crops' has been a paltry 2.2 percent over the same period. Notwithstanding, Guyana has the potential to export a plethora of non-traditional produce, having favourable climate conditions and available land. It is anticipated that in the near future, non-traditional agriculture could become an engine of export growth.

Agricultural systems in Guyana are challenged by climate change and this poses a risk to sustainability. Agriculture is predominantly done along the low lying coast which is vulnerable to flooding, adding to the cost of production and reducing competitiveness. In response, Guyana has committed to a number of interventions. Firstly, with the support of bilateral partners, the country has installed additional drainage pumps along the coast to combat the effects of heavy rains and overtopping of the seawall and continuously increases support to the National Drainage and Irrigation Authority. This will complement the upgrading of critical sections of the main water conservancy – the East Demerara Water Conservancy (EDWC).

Secondly, given the challenges of farming on the coast, there has been the opening up the intermediate savannahs, which have largely untapped and arable land. This has resulted in development of the G\$220 million Ebini Agricultural Research Facility, which allowed the improvement of research programmes focusing on cassava, peanuts, orchards and livestock, as well as the improvement of extension services, and the establishment of mega farms targeting new crops such as soybeans, corn, and coconuts. Investments in infrastructure are required to make this a viable and sustainable venture. Already, interventions, such as the Hinterland Environmentally Sustainable Agricultural Development Project, have been undertaken to improve livelihood resilience through

income generation, access to assets, improved nutrition, and adaptation to climate variability by strengthening and investing in rural hinterland communities, where farming is a way of life and important source of income. However, Guyana is cognisant that the wider hinterland regions also face climate risks including drought and flooding.

Thirdly, the sector has increased the promotion of sustainable practices which serve to educate farmers on ways they can improve the resilience of their operations through the adoption of climate-smart practices thereby reducing their footprint on the environment. Small farmers have already been adopting low-cost technology measures such as shade houses, hydroponics, the use of biofertilisers and reducing pesticide usage among others. Specific climate-smart initiatives include the introduction of both flood-resistant and drought-resistant varieties of rice, use of renewable energy in processing operations and capacity building through Farmer Field Schools.

Finally, agricultural sustainability is also being achieved through progress in maintaining genetic diversity of seed and cultivated plants with the agricultural research institutes maintaining over 6,000 genetic plant resources (SDG Target 2.5). The country has made progress in establishing systems for consistent and reliable supply of germplasm for both traditional and non-traditional crops. However, significant assistance and investment are required to urgently ramp up these various initiatives.

In spite of the relatively undiversified agricultural base, Guyana is still widely regarded as the one of the countries in CARICOM (Caribbean Community) that enjoys a high level of food security and is a net exporter of primary agricultural products, maintaining its status of being a food secure nation¹⁰. Additionally, the annual percentage change in the food sub-group of the consumer price index has declined steadily from five percent in 2016 to one percent in 2018, and is anticipated to remain low.

While agriculture and food security are important, in and of themselves, they are also critical to the health and well-being of the population at large. Anemia prevalence among pregnant women has reduced from 23 percent in 2015 to 17.1 percent in 2018, thereby reducing the risk to unborn children (SDG Target 2.2). The proportion of population that is severely malnourished has also declined from 0.6 to 0.4 over the same period (SDG Target 2.1). However, significant efforts

are required to be expended in the area of nutrition education and poverty reduction as the prevalence of wasting in children under 5 has increased from 0.2 to 0.6 and the prevalence of overweight children under 5 from 1.9 to 2.1..

Additionally, food security and public health are premised on good phytosanitary conditions and standards. The country's cattle are free from major diseases such as foot and mouth, and brucellosis, and programmes to improve cattle breeds have continued over the period, including artificial insemination, embryo transfer and enhancement of breeding stock. In 2019, Guyana has also adopted the food safety legislation which seeks to prevent the spread of foodborne diseases through the control of the production, preparation, handling, storage and transportation of food. This is important to the overall health of the population as it will provide the regulatory framework to ensure safer food practices thereby reducing instances of food-related illnesses, and, in the worst case, deaths.

Overall, Guyana has a strong focus on improving food security and profitability of the country's agro-food sector by facilitating investments, technology transfer and improvements in drainage and irrigation. Additionally, the agricultural sector has, over the years, benefitted from a number of programmes in agriculture diversification, building climate resilience, food security, and disaster risk management, through regional and international donor agencies and development partners such the Food and Agriculture Organisation (FAO), Inter-American Institute for Cooperation on Agriculture (IICA), the Inter-American Development Bank (IDB) and other regional and country partners. These initiatives inevitably lead to institutional and capacity development in key institutions across the agricultural sector.

In addition, a high-level partnership has been established with the manufacturing sector to collaboratively assess the challenges facing the agro-processing industry. The intention is to develop and implement tailored solutions that have broad support from inception, to ensure viability and sustainability. In the long term, these will drive growth in manufacturing and value-added production. A feature of this partnership will result in south-south cooperation study tours to selected countries to assess other best practices in agro-processing.

¹⁰ In 2003, FAO had recognized Guyana as one of the countries that achieved Millennium Development Goal (MDG) number one, to halve the proportion of hungry people and reduce by half the absolute number of undernourished people between 1990-92 and 2010-2012.

Challenges, Emerging Issues and Addressing the Way Forward

A cross-cutting challenge of many SDGs is that of adequate and predictable financing. This is in recognition that without sufficient financing, key investments in infrastructure and service delivery may not be able to take place at the desired pace. Hinterland farming communities are particularly more susceptible given the difficulties in providing extension, financial and marketing services to these hard-to-reach communities, due to the lack of adequate transport infrastructure.

Efforts to promote more sustainable agriculture are not without its challenges. Guyana's largest traditional commercial agricultural crop – sugar – has been yielding diminishing returns with the industry still undergoing restructuring. This restructuring has caused some displacement of some of its workers. Retraining of workers and re-allocation of land for other purposes, including growing cash crops for export, are required to manage the effects of restructuring. This is another reminder of the importance of diversification. While authorities have continuously promoted diversity in the sector, these efforts must be significantly supplemented in order to catalyse this change which will, in turn, ensure sustainability.

Another key factor for sustainability is ensuring a sustained farmer population in light of the aging farmers and the limited interest among youth for agriculture¹¹. Partnership with the education sector is therefore critical to ensuring the continuance of labour force in the agriculture sector by effectively promoting this discipline in schools.

Diversification will also support sustainability, especially in agriculture exports. However, this must be in tandem with the implementation of value chain development, supply chain management, quality standards and rigorous efforts to secure export markets. Sustaining future incomes from traditional crop exports is challenged given that the high prices previously observed were not likely sustainable. This highlights the lack of competitiveness of Guyanese agriculture products, linked to issues of quality and inefficient production practices. The implementation of the food safety legislation will address quality standards, while the promotion of new technologies and mechanisation, supplemented by education in sustainable and climate-smart farming techniques, will assist in improving productivity. Further, works will continue to improve and modernise drainage and irrigation systems and

sea defences to better address the impact of climate change on agriculture.

Additionally, the lack of efficient and adequate data systems has severely stymied the ability of the sector to effectively plan and manage the transformation of the sector. This translates to inadequate research and development capacities and decisions being made without sufficient data, which in turn, only allows for minimal innovation and piecemeal interventions. For example, data is lacking in the areas including agricultural and labour productivity, outputs, farmer income and greenhouse gas emissions. In light of this, Guyana has secured support from development partners to implement an agricultural census which is intended to fill some of the mentioned data gaps.

11 See - Dolly and Ennis (2017) "Characterisation of Family Farms in the Caribbean: A Study of Guyana, Haiti, Jamaica, and Saint Vincent and the Grenadines." Available at <http://repositorio.iica.int/bitstream/11324/6104/1/BVE17109315i.pdf>

Lessons Learned

Given the historical importance of agriculture to the economy, structural changes naturally result in ripple effects across most sectors, as evidenced by the experiences of the sugar industry. As such, it is infinitely critical that every detail and risk is evaluated and planned for in order to minimise the adverse effects on livelihoods. This requirement is also applicable if diversification is to be realised. At the root of effective planning and analysis, is good data. As with many of the SDGs, strong data systems are at the crux of effective implementation and achieving the desired outcomes and sustainability.

Having mentioned the importance of energy, infrastructure, health safety and education in this instance, multi-sectoral coordination is further emphasised. This tenet becomes an impossible-to-ignore feature of effective planning and achieving national and SDG Targets. Ultimately, multi-sectoral collaboration means a whole-of-society approach to realising economic development and a good life for all.

Sustained partnerships and development assistance have proven to be beneficial in offsetting the challenges of the Guyanese agriculture sector. Collaboration and support from both international entities and private sector are crucial to ensuring the sustainability of interventions as well as effectively implementing new initiatives. Leveraging partnerships to develop new programmes will advance diversification, thereby improving the resilience of the economy, and sustaining growth and quality of life.

Table 3 - Select Agriculture Indicators, Ministry of Agriculture

Indicator	Value
Agriculture contribution to GDP (percent) (2017)	16.5
Export earnings from agriculture (percent) (2017)	26
Percentage of population employed to the agriculture sector (2017)	17.8
Contribution of the fisheries sector to GDP (2016)	1.9



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SUSTAINABLE DEVELOPMENT GOAL 3:

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Context and Key Achievements

Public health care as priority, must be provided fairly and equitably to all citizens regardless of economic status, geographic location, ethnicity or lifestyle. There are three key values that characterise the Guyana health service: (i) “health as a human right” - recognising the rights of citizens to enjoy good standards of living, health and well-being; (ii) “equity” - universal access is provided to all regardless of gender, socio-economic status or geography; and (iii) “solidarity” - with health as a priority, all citizens must engage in the delivery of good health services, especially to the poor and disadvantaged. From as far back as the 1990’s the Government took the strategic policy decision to promote primary universal health care as the most effective investment and the mechanism for promoting good health and reducing the incidence of disease and illness.

Currently, the public health sector is guided by the Health Vision 2020 – the national plan to achieve ‘Health for All in Guyana’. Vision 2020 draws on various target strategies such as the Nutrition Strategy, Maternal, Neonatal, Adolescent and Family Health Strategy and the Disability Prevention and Management. Currently, the health authorities have undertaken to conduct an end-period evaluation of Vision 2020 with a view to commencing work on the next sector strategy, which will be framed within the principles of the Green State Development Strategy: Vision 2040. The next strategy is also envisaged to incorporate the dimensions of resilience and climate change responsiveness.

Key health indicators for Guyana have generally shown an improvement over the years. Life expectancy has increased from 66.8 years in 2010, to 68.2 years in 2017. Between 94 to 96 percent of all births have been attended by skilled health personnel over the period 2015 to 2018 (SDG Target 3.1). Additionally, immunisation coverage has consistently remained high ranging between 96 and 98 percent between 2015 and 2018 (SDG Target 3.b). Further, Guyana, being a tropical country, is susceptible to vector borne disease. The incidence of malaria – the most prominent vector-borne disease – per 1,000 has fluctuated during this period between 13 and 21.7, with the hinterland being more susceptible, especially in remote and mining areas.

Health care in Guyana is financed primarily by central government, with support from international development partners. Total public health expenditure as a percentage of the national budget increased from 9.8 percent in 2015 to 12.0

percent in 2018; however, health expenditure as a percentage of GDP was about 4.2 percent in 2018, up from 3.3 percent in 2015. Though slightly lower than the CARICOM average of 6.7 percent and also under the PAHO/WHO recommended target of 6 percent of GDP. For the health sector, drugs and medical supplies account for the one of the largest shares of expenditure which is magnified by the significant cost of transporting these supplies to the far-flung health facilities in the hinterland.

Capital investments are an important component of public health expenditure. Between 2015 and 2018, this expenditure category has increased from 5 percent to 7 percent as a share of total public health expenditure. Infrastructural upgrades of health facilities have been undertaken across the country, including at hinterland locations such as Paramakatoi and Port Kaituma and at district hospitals in Diamond, Suddie and Bartica. The national referral hospital – Georgetown Public Hospital Corporation – has also upgraded its maternity ward facilities and the operating theatres and benefitted from new equipment including a mammography machine and CT scanner. Nevertheless, significant deficits exist, particularly in the hinterland.

As was under the MDGs, improving maternal mortality remains a major bottleneck for Guyana’s health care system. The maternal mortality for the country was recorded at 133 per 100,000 live births in 2017, up from 112 in 2015 (SDG Target 3.1), while neonatal mortality declined from 20.4 per 1,000 live births to 18.6 over the same period (SDG Target 3.2). Government has undertaken to improve the quality of maternal facilities across the countries, adding beds to maternal units in hospitals as well as maternal waiting homes. The Maternal and Child Health Programme is also endeavouring to strengthen community engagement and implement behavioural change strategies in select regions. Guyana recognises the importance of achieving this particular target, especially given the near stagnant population growth, and is committed to prioritising initiatives that will see a drastic improvement in maternal and child health, ensuring no woman dies giving birth.

Within the past years, the disease profile of Guyana has changed. The country currently is in an epidemiological transition, with non-communicable diseases (NCDs) being the major cause of morbidity and mortality since 2004. In 2015, NCDs accounted for 70 percent of all deaths with

cerebrovascular disease (stroke) being the leading cause of death, followed by ischemic heart disease, neoplasms, diabetes and hypertension. Non-communicable diseases are the main contributor to the burden of disease, with an estimated annual economic burden of US\$221.5 million in direct and indirect costs, and accounted for 46.9 percent of all Disability Adjusted Life Years lost in 2000¹². Notwithstanding, opportunities can be found to establish partnerships for the provision of critical health care services.

The Guyana Cancer Society has partnered with government and is fully invested in the aspirations of the SDGs and has aligned its programme with the goal of promoting healthy lives and well-being. Its programmes include outreach and advocacy, screenings, and community support systems, particularly for survivors. A major achievement, thus far, is the screening of over one thousand women within the past five years. Additionally, Government has enacted a Tobacco Control Act (2017) in an effort to control and reduce the health-related impacts of tobacco consumption, which may include cancer, heart-attack and stroke, among others.

Guyana also has a significant burden of communicable diseases – with Human Immunodeficiency Virus (HIV), influenza and pneumonia being the sixth and ninth leading causes of death, respectively, in 2012 and 2015. Notwithstanding, the country has made important strides to address diseases such as tuberculosis (TB), malaria and HIV, among others. In 2018, Guyana signed on to the “Treat All” Policy – the global standard for responding to the HIV epidemic – as HIV continues to pose a public health challenge with the incidence of this disease having increased from 113 per 100,000 population in 2015 to 161 in 2017 (SDG Target 3.3).

Guyana has also undertaken to resuscitate its directly observed treatment, short-course (DOTS) to address the slight resurgence in tuberculosis (TB) related mortality which has increased from 9 per 100,000 population to an estimated 10.7 in 2018 (SDG Target 3.3). Improved detection, treatment and monitoring continue to be required in order to restrain any further deaths from TB. Additionally, mental health has emerged as a national issue over the last few years, as Guyana has ranked among the countries with the highest rates of suicide in the world at 24.6 per 100,000 population (2017) (SDG Target 3.4). This is the third major cause of death in the 15 – 44 age group. A mental health unit and a support hotline have been established, and the unit has facilitated mental health training for health professionals across the country to improve the awareness and detection of mental health issues.

In any health sector, a major input for the delivery of quality services is a well-trained healthcare workforce. For Guyana, the number of physicians per 10,000 population has declined from 14.1 in 2015, to 13.5 in 2018 (SDG Target 3.b), notwithstanding continued efforts to ensure that every administrative region is equipped with specialist services and accompanying personnel, including surgeons, gynaecologists and paediatricians. Guyana continues to value its bilateral partnerships with countries including Cuba and China, which allow Guyanese to benefit from training in medicine overseas. Additionally, investments have continued to support the country's nursing schools – located in Georgetown, New Amsterdam and Linden – and the School of Medicine at the University of Guyana which has the capacity to produce about 30 doctors and train 20 post graduate doctors annually.

Challenges, Emerging Issues and Addressing the Way Forward

Notwithstanding substantial efforts by Guyana to analyse the problems as well as identify and cost solutions to improving maternal health via a MDG Acceleration Framework (MAF), financing and technical support were not forthcoming as expected. As such, maternal health outcomes have not improved at the pace that is desired. In 2016, work commenced on the decentralization of maternal services, especially to Regions 1, 7, 8, and 9, as a targeted programme aimed at improving maternal and child health, which is expected to improve the related outcome indicators by 2020.

Critical to improving health outcomes, including that of maternal health, is the effective management of drugs and medical supplies. Supply chain management of these items have been inadequate with reports of shortages persisting across the country. The lack of systems for effective procurement, distribution and tracking remain and requires additional support.

The inadequacy of supply of qualified medical professionals also adds pressure to the public health system. Currently, the national referral hospital is the only public medical facility most suited to treat high-risk patients. Furthermore, for hinterland patients this presents an exacerbated challenge as they must travel to the national referral hospital, in Georgetown, on their own by river flown by emergency charter flight (medevac). Over the past ten years, expenditure on emergency medical evacuations from the hinterland to national referral hospital on the coast has doubled. Additionally, in some non-high-risk instances, where the specialist or equipment may not be available in a region, a patient must make the often arduous journey to the national referral hospital. This results

¹² Taken from the Non-Communicable Prevention and Control Strategy (2013)

in overcrowding at the national referral hospital in many instances and places added financial burden and risk on patients.

Key to the issue of adequate staffing is the quality of remuneration of health professionals. Guyana intends to review and revise the general wage level for health sector workers with a view to attracting and retaining them. However, retention in the hinterland and remote riverain communities will likely remain a challenge until connectivity, quality of life and cost of living improve in those areas.

For effective decisions to be taken and programmes implemented in health and other sectors, data is paramount. While the health sector is more advanced with regard to the breadth of data generated, it is not sufficiently modernised or efficient in collection and production – there is still an absence of a national integrated health information system. Data systems strengthening remains an area of priority, especially as data analysis and dissemination tends to be in response to ad hoc requests from donors and other partners.

Predictability of development financing also features as a multi-sectoral challenge. Recognising that access to concessional and other donor funding will remain critical, at least in the immediate medium term, the continued reduction in predictable and timely financial support by development partners will impact Guyana's ability to effectively plan and implement its programmes and provide public services. It is expected that the elaboration and costing of Guyana's Vision 2040 will serve to more effectively channel donor support, though this requires active collaboration by all stakeholders.

Lessons Learned

In light of the challenges facing the public health sector, emanating from various facets of service provision, improved coordination must be prioritised, along with building and sustaining human resources for health, while improving health information systems nationally. Piecemeal interventions, including limited reach in rural and hinterland regions with reduced capacities, and especially with contracted donor support, have adversely impacted the sustainability of the gains made in the sector. Therefore, management of the sector, including donor interactions, must be done in a holistic, concerted and strategic manner.

Given the changes to the disease profile of Guyana, public education on health and nutrition is even more critical to positively affect the choices each individual makes, especially in a world of proliferating unhealthy fast-food chains and sugar-sweetened beverages. Every citizen should be aware of the impacts of their life choices, from decisions on regular check-ups, to how often one exercises, to what food they consume and to what information one consumes, especially from sources without official medical training and expertise.

Table 4 - Neonatal, Infant and Child Mortality Rates for Guyana, 2012-2018, Ministry of Public Health, Statistical Unit

Indicator	2012	2013	2014	2015	2016	2017	2018
Crude Birth Rate (per 1,000 persons)	18.2	18.5	19.8	17.6	17.8	17.9	18.1
Neonatal Mortality Rate (per 1,000 live births)	21.8	21.4	20.9	20.4	20.0	18.6	16.7
Infant Mortality Rate (per 1,000 live births)	24.1	24.9	23.3	22.9	23.4	19.9	18.7
Under 5 Mortality Rate (per 1,000 live births)	26.7	25.9	23.9	24.3	25.1	21.5	19.1



SUSTAINABLE DEVELOPMENT GOAL 4:

ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

Context and Key Achievements

Guyana provides free public education to all its citizens up to the secondary level, which is indicative of the importance placed on the sector's contribution to socio-economic development. School is compulsory until the age of fifteen (15) in keeping with the minimum age for employment. Programming for inclusive and quality education has been centered around the provision of quality early childhood education, improving mathematical and literacy skills and access to technical, vocational and tertiary education, removing gender bias and ensuring that opportunities exist for young people to learn to be critical in their thinking, informed in their decision making and tolerant in their actions.

To date, the public education sector has been guided by the Education Sector Plan (2014-2018) which aimed to provide an education system that delivers quality education and training at all levels and, in particular, eliminate illiteracy, modernise education and strengthen tolerance. This medium-term strategy is currently undergoing an end-term evaluation and preparation of the next sector plan which will be framed within the principles of the Green State Development Strategy: Vision 2040. Key to the next sector plan will be curriculum reform at all levels in a manner that fosters greater policy coherence and recognises the global advances made in education that will be necessary to help leapfrog the national education system and ultimately the country into the 21st century. Work has already begun on curriculum reform in nursery and grades 1, 2 and 3. The underlying principles of curriculum reform include learning, assessment and inclusivity.

In the last decade, Guyana has experienced an uneven performance in education outcomes. Of concern to the nation was the 14 percent pass rate in mathematics at the National Grade Six Assessment (NGSA) in 2016, the placement exam that precedes entrance to secondary school. In response, the Ministry of Education implemented a Programme for Emergency Education Reform in that subject area, which resulted in training for nearly 4,000 teachers in selected regions, since 2017. Additionally, technology-assisted learning has been piloted, in four regions – two hinterland and two coastal – with just over 1,000 students at the lower secondary level to ascertain its potential to improve performance in mathematics. An evaluation is underway to assess the pilot's effectiveness.

Table 5 - Grade Six Mathematics Performance, Ministry of Education

GENDER		2016	2017	2018
All Pupils	% 30 marks +	14%	46%	38%
	Average Score	18.4	29.1	27.0
Female	% 30 marks +	16%	48%	42%
	Average Score	19.3	30.1	28.6
Male	% 30 marks +	13%	43%	34%
	Average Score	17.5	28.1	25.4

Notwithstanding that pass rate improving to about 38 percent in 2018, this substandard performance is unacceptable to the country. Performance in English, on the other hand, has generally improved from 47 percent in 2015 to 60 percent in 2018, though significant improvement is still desired (SDG Target 4.1). These improvements have been supported by the introduction of literacy kits, which benefitted over 13,000 students, and the pilot of a literacy studies programme that adopts a multi-pronged approach to learning in over 100 primary schools in all administrative regions.

At the secondary level, matriculation at the Caribbean secondary school examinations, has improved from 33.4 percent in 2015 to 41.4 percent in 2018, and the country's youth literacy rate, however, is 93 percent. The matriculation, or lack of, subsequently becomes consequential to the ability of a learner to advance to tertiary education. The ability of a student to complete secondary education avails them the options of entering formal tertiary education, pursuing skills training or entering the workforce. Matriculation is therefore a critical signal for the economy to determine when and if it will have the necessary human capital to meet its needs in terms of skills and production. The reform initiatives of the sector will target the various bottlenecks of the system to ensure that students matriculate.

This outturn is further complicated when the disparity between the hinterland and coast is examined. The overall performance index at the NGSA, between the two regions, has remained low since 2015 at around 0.28, indicating worse education outcomes for students in the hinterland regions. Though not as extreme, this disparity is mimicked at the end of the secondary education at the exam for the Caribbean Secondary Examination Certificate, with the performance

index only marginally improving to 0.41 in 2018, from 0.4 in 2015 (SDG Target 4.5).

Disparities also exist with regard to gender participation in schools. At the secondary level, this disparity has remained in favour of girls with the parity index hovering stably at 1.11 between 2015 and 2018. At the lowest levels, however, generally the index has worsened from 0.97 to 0.95 over the same period at the nursery level indicating greater disparity, in favour of boys. Parity is considered to exist when the given indicator falls in the range of 0.97 and 1.03 (SDG Target 4.5).

Guyana has made progress in early childhood education recognising the importance of education at all stages of the life cycle. Targetted early childhood education programmes have resulted in the improvement in both emergent literary and numeracy, between 2016 and 2018. The former has increased from 49 percent to 58 percent, while the latter increased from 51 percent to 61 percent (SDG Target 4.2). The introduction of early childhood education resource kits and continuous surveillance, among other initiatives, has contributed to this performance. The media campaign, “Read, Play, Love” was particularly effective in reminding citizens that nurturing care of the young is the nation’s responsibility.



Across all levels, the public education sector has been striving to improve both the quality and quantum of the inputs required to improve education outcomes for the country. The percentage of trained teachers in the system has increased marginally, by 1 percent to 73 percent between 2015 and 2018 (SDG Target 4.c). Within recent years, reforms to the programme for continuous professional development of teachers has resulted in the upgrading of the appraisal instruments to support professional growth by providing for a systematic process of evaluation. Over the mentioned period, in excess of 4,500 teachers have received supplemental training in areas including nursery, technical and vocational education and mathematics.

Investments in education infrastructure have also increased by approximately 9 percent to G\$4.7 billion between 2016 and 2018. Based on an education facilities conditions survey, conducted in 2017, a composite index of the condition of facilities was determined to be 62, on average, of about 1200 schools and teachers’ quarters. Of note, just 25 percent of primary schools had access to computers for pedagogical purposes, while this was 94 percent for secondary schools. Additionally, only 81 percent of schools had access to electricity and 80 percent to water and sanitation facilities.

Table 6 - Conditions of Education Facilities, 2017/2018, Ministry of Education

Status/Description of Facility	2017/2018
Proportion of Primary schools with access to computers for pedagogical purposes (percent)	25%
Proportion of Secondary schools with access to computers for pedagogical purposes (percent)	94%
Proportion of schools with access to Electricity (percent)	81%
Proportion of schools with access to water and sanitation facilities (percent)	80%

Towards the promotion of universal access to education, the public education sector also caters for programmes for adults and segments of the vulnerable population. In 2015, Guyana implemented a three-tiered intervention for adults, in partnership with businesses, NGOs and religious organisations, among others, aimed at improving functional literacy. The adult literacy rate in Guyana stands at about 88.5 percent slightly above the global average of 86 percent reported by UNESCO, but behind other CARICOM countries, many of which have achieved rates of over 95 percent (SDG Target 4.6).

There are also six special schools that cater to students with special physical, sensory and/or mental needs, and for others who are socially disadvantaged or in especially difficult circumstances. Further, the Board of Industrial Training, which focuses on technical and vocational training, also runs tailored programmes for persons with disabilities. Between 2016 and 2018, 343 persons – 128 male and 215 female – with disabilities have graduated from its programme. For at-risk and out-of-school youths, the National Training Project for Youth Empowerment (NTPYE) was rolled out in all ten administrative regions in 2016, with the aim of providing skills training and non-formal education. Since 2015, over 21,000 young people benefitted from such programmes. A Graduate Survey is conducted yearly, beginning 2015, to determine the employment status of graduates of the NTPYE programmes and also to determine whether graduates benefitted from a socio-economic perspective of the programme.

Recognising the need to equip Guyana with a diverse set of skills in order to transform the economy, technical and vocational education and training (TVET) has grown in significance over the years. Between 2015 and 2018, enrolment in formal and non-formal technical and vocational education institutions and programme has increased by about 67 percent to approximately 7,500 (SDG Targets 4.3 and 4.4). While the majority of administrative regions benefit from local technical and vocational institutes, the hinterland

regions are currently without. Additionally, secondary schools have also been undergoing refurbishment and expansion in order to enable them to implement the Caribbean Vocational Qualification – the regional vocational standard and credential.

As Guyana continues to improve the quality of its labour force, like TVET, primary and secondary education are paramount to producing the knowledge to equip students to opt for a range of tertiary level offerings that are more aligned to economic diversification and improving productivity than has been the case in the past. The University of Guyana has introduced over 30 additional programmes between 2015 and 2018 in an effort to promote training in non-traditional fields and ensure that there is a diversified skill-base to support modernisation. Nationally, enrolment at the tertiary level (University of Guyana) has increased by just over 1,000 students to about 8,300, over the same period (SDG Target 4.3). The University has also benefited from increased subventions from the central government and partnerships with civil society, NGOs and other universities abroad.

Challenges, Emerging Issues and Addressing the Way Forward

The education sector accounts for the largest share of the National Budget, approximately 15 percent in 2018, in recognition of its importance to national development. However, due to the complexities involved in effectively delivering quality education services, there still exist gaps ranging from procurement, to human resources, access and migration, among others. The procurement and distribution of learning resources to schools remains a challenge. In various instances, not all children may access the required textbooks, partly due to inadequate purchases and also to poor management. This challenge of distribution is heightened in the hinterland due to higher cost and logistics of transportation.

As part of the national Monitoring and Evaluation capacity strengthening initiative, through the conduct of clinical sessions, the distribution of education resources was identified as a major challenge in the effective delivery of education across the country. To address the varying determinants of this issue, strategic interventions were derived through consultation with the main stakeholders along the distribution chain, from the warehouse to the school. The resulting changes included changing: the type of packaging, to ensure that the resources are protected from natural elements; the distribution path, thereby transporting resources through more cost and time efficient routes; and the tracking system to ensure that schools are verifying quantity of resources received.

Physical resources are also a challenge to the sector. Poorly planned and executed maintenance and construction of education facilities often lead to substandard and inadequate schools. The resulting poor learning environments are further compounded due to the connectivity issues faced by schools in the hinterland and remote riverain areas. Until quality and reliable equipment and connectivity services are available across the country, implementing technology-assisting learning will be stymied. The public sector intends to rapidly overcome these issues with the implementation of a modern and comprehensive project investment management framework which will improve planning, execution and monitoring of investments.

However, adequate learning resources and improved learning environments alone will not result in improved performance. The education sector has been forced to relook at its training programmes, especially in-service training, as the alarming performance in mathematics at NGSA, in 2016, occurred with a 72 percent trained workforce. Compounding the situation, the national student-trained teacher ratio at the primary level, in 2018, stood at 25:1 on the coast, compared with 61:1 in the hinterland regions, well above the recommended average for effective learning.

Further, the government has been attempting to negotiate a more meaningful relationship with the umbrella non-government organisation representing teachers' interests. The critical component to the discussion continues to be the lack of a unanimous endorsement of the systematisation of performance appraisals and performance-based incentives. All stakeholders must commit to improving performance, first and foremost, if Guyana is to sufficiently equip its young peoples with the skills necessary to transform the country and improve their quality of life.

Until such time as the configuration of the education sector is able to meet the needs of Guyana's school population, alternative options must be sought, in light of the rapidly approaching economic developments, especially relating to oil and gas. The country recognises the current deficiencies, particularly in science, technology, engineering, arts and mathematics (STEAM), and, is therefore exploring all immediate options to source the requisite pedagogical skills to ensure that Guyanese children are not deprived of quality education.

Notwithstanding the need to improve the quality and quantity of inputs for the education sector, disparities between the hinterland and coast will persist due to poor connectivity. Currently, many children walk long distances or travel on rivers in order to attend school, with average attendance

rate of approximately 77 percent in the hinterland for 2018. Delivering supplies and attracting teachers to these locations are also challenging given the terrain and remoteness of many hinterland schools. However, the sector and education outcomes will stand to improve as the country puts in place critical infrastructure to establish a modern transport network in and between the hinterland and the rest of Guyana.

Expanding the pool of graduates, both secondary as well as tertiary, continues to be an issue especially in the face of brain drain. The then Hon. Minister of Education, quoting a World Bank report, signalled that approximately 90 percent of tertiary graduates emigrate, seeking better opportunities regionally and beyond. This reduces the available and skilled human capital required to drive economic growth, and is an issue that must be tackled at the national level.

While the economy must be responsive to the outflow of skilled workers, it must also address the influx of migrant refugees fleeing political instability in the region. There are several thousand known refugees, many of which are families. Guyana has extended its public services to existing refugee children to allow them to continue their education and access basic health services. However, this puts additional strain on the public sector.

Lessons Learned

It is pellucid that education, as other sectors, requires a multidimensional approach if services are to be delivered efficiently and educational outcomes are to improve. Education must be coordinated through all stages of the life cycle such that a child is given a solid foundation from the youngest age, and receives sustained quality instruction and training throughout all levels. Multidimensionality also recognises that the various components of education delivery such as learning materials, human resources and learning environments, must be coordinated and reliable. Additionally,

education relies on other sectors in order to receive the supporting inputs required to deliver its programmes. This includes: i) infrastructure to improve access to education; ii) water, sanitation and public health services to improve well-being and capacity to learn; and iii) labour-market interventions to foster absorption of graduates. In similar vein education is an input to the sectors that are most in need of expansion and diversification such as infrastructure, agriculture, information technology and telecommunications and renewable energy.

Specifically regarding the mechanisms for education delivery, structured planning, and effective implementation and monitoring are paramount to ensuring that capital investments are executed in the most efficient manner. Construction of new schools should not only be planned with existing demand in mind, but also with consideration for population growth and internal migration. A strict maintenance schedule and programme should be in place to ensure all schools are compliant with conditions guidelines. All of the aforementioned are critical to mitigating risks to the health, well-being and learning of children, and must be planned for within a structured and comprehensive investment management framework.

The Guyanese experience continues to demonstrate the value of data. Disaggregation by gender and location has proven critical in identifying the weaknesses in the education sector, and, in particular, the potential effects on the most vulnerable. It has allowed the authorities to consider targetted interventions aimed at addressing the disparities between the hinterland and coast as well as those between boys and girls. Additionally, the sector has been keen to undertake tracer studies and follow-up evaluations on teacher training, scholarships, as well as other initiatives to determine their effectiveness in improving outcomes and employability, respectively.

Table 7 - Select Education Indicators for Guyana, 2018 Guyana HDI Statistical Update and Ministry of Finance

Indicator	2017
Gross Enrolment Ratio – Primary (Percent)	96
Gross Enrolment Ratio – Secondary (Percent)	99
Gross Enrolment Ratio- Tertiary (Percent)	12
Mean years of schooling	8.4
Education as a percentage of GDP	5.6
Population with at least some secondary education (Percent)	63.3
Population with at least some secondary education (female) (Percent)	70.9
Population with at least some secondary education (male) (Percent)	55.5





SUSTAINABLE DEVELOPMENT GOAL 5:

ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

Context and Key Achievements

Guyana continues to reaffirm its commitment to the Beijing Declaration and Platform for Action, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), among other initiatives dedicated to advancing gender equality. Promoting gender equality and the empowerment of women in all spheres of life remains a national priority even as we recognize the situation for boys requires special attention¹³.

In 2018, Guyana developed a National Gender and Social Inclusion Policy (NGSIP) which aims to mainstream gender issues into all sectors, thereby eliminating all negative economic, social and cultural practices that impede equality and equity. This policy forms the overarching framework that sets out pathways that will provide an opportunity to address inequalities and reshape policies to empower women and girls so that they become catalytic agents of change. The Policy is also intended to strengthen linkages among Government, NGOs, and the private sector in mainstreaming gender, and will contribute to the collection, maintenance and provision of gender sensitive information and gender disaggregated data for use in planning and project implementation at all levels and across all sectors (SDG Targets 5.1, 5.4, 5.a and 5.c).

Guyana remains committed to ending all forms of violence against women and children and has also enacted several pieces of legislation that provide the political and legal framework for their implementation. These include the Domestic Violence Act 1996 with Regulations (2015); Prevention of Discrimination Act 1997; Combating of Trafficking in Persons Act 2005; Status of Children Act 2009; The Protection of Children Act 2009; Sexual Offences Act 2010 Chapter 8:03; Sexual Offences (Amendment) Act 2013; Criminal Offences Act Chapter 8:01; Criminal Law (Procedure) Act Chapter 10:01 (SDG Targets 5.1, 5.2 and 5.c).

Statistics related to gender generally present an imbalance between men and women. Guyana's Human Development Index (HDI) for 2017 was 0.654, however the disaggregated Gender Development Index¹⁴ (GDI) hovered about 0.947 to

0.948 between 2015 and 2018. Guyana's GDI – defined as the ratio of the female to the male HDI – indicates the progress that has been made as well as the need to further efforts to ensure women's HDI improves to the same level as men's (SDG Target 5.1). With regard to income inequality between sexes, Guyana has a GNI per capita (purchasing power parity) of US\$4,543 for females and US\$10,295 for males. Based on this metric, females earned less than half that of the average male. Many women are concentrated in the informal sector with no social security and benefits. The CEDAW has indicated that there is persistent pay discrimination against women and a high proportion is engaged in unpaid family work¹⁵ (SDG Target 5.1 and 5.4).

Notably, according to the 2018 Human Development Report (HDR), the average life expectancy at birth is 69.2 years for females and 64.5 years for males; 11.7 expected years of schooling for females and 11.0 for males; 8.5 mean years of schooling for females and 8.4 for males. Guyana has thus made progress towards achieving universal primary education, and has met the target of eliminating gender disparity in primary and secondary education and strives towards parity at the tertiary level (SDG Targets 5.1 and 5.5). The 2010 HDR introduced the Gender Inequality Index¹⁶ (GII), which reflects gender-based inequalities in three dimensions reproductive health, empowerment, and economic activity. The GII can be interpreted as the loss in human development due to inequality between female and male achievements. Guyana had a GII value of 0.504, ranking it 122 out of 160 countries in the 2017 index, marginally higher than the 0.509 recorded in 2015. With respect to reproductive health, every 100,000 live births, 133 women died from pregnancy related causes; and the percentage of births delivered by adolescent girls was about 24 percent. Notwithstanding, through its Health Vision 2020, Guyana has ensured that initiatives related to universal access to sexual and reproductive health continue to remain a national priority. Further, female participation in the labour market was 43.6 percent¹⁷ (SDG Targets 5.5, 5.6 and 5.a).

13 See the Caribbean Development Bank Country Gender Assessment Synthesis, 2016, by Rawwida Baksh and Associates.

14 The GDI measures gender inequalities in achievement in three basic dimensions of human development: health (measured by female and male life expectancy at birth), education (measured by female and male expected years of schooling for children and mean years for adults aged 25 years and older); and command over economic resources (measured by female and male estimated GNI per capita).

15 Taken from the Committee on the Elimination of Discrimination against Women Fifty-second session 9-27 July 2012 "Concluding observations of the Committee on the Elimination of Discrimination against Women"

16 Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men.

17 See Guyana Labour Force Survey – 2017 Third Quarter Report, Bureau of Statistics, March 2018

In order to ensure both men and women contribute meaningfully towards national development, empowerment is key for participation in decision-making. In Guyana, 31.9 percent of parliamentary seats were held by women in 2017, compared to 30.4 in 2015¹⁸, and 70.9 percent of adult women have reached at least a secondary level of education compared to 55.5 percent of their male counterparts. According to the 2017 Global Gender Gap (WEF), Guyana has the greatest proportion of women represented in their national legislature, as compared to a grouping of six Caribbean countries including Jamaica, Trinidad and Barbados. Part of Guyana's success in this area can be attributed to it being the first country in the Anglophone Caribbean to enact a gender quota law in 2000¹⁹ (SDG Targets 5.5 and 5.c).

Specifically, women are given the necessary wherewithal to take on leadership roles and this has manifested itself mainly through girls having equal opportunities for access to education along with targeted programmes for leadership training including those offered by the Guyana Women's Leadership Institute (GWLI) and the Gender Affairs Bureau. Over the last three years, four hundred eighty (480) women participated in these programmes. The programmes cater for women leaders involved in community work throughout the country with participants enhancing their skills in leadership, knowledge of local government law, understanding of gender mainstreaming and team building, among other areas, thereby preparing them for participation in the local and regional government system. Most of the participants are already serving members of both Regional and Neighbourhood Democratic Councils (SDG Target 5.5).

During the period 2015 to 2019, women representatives were more than 30 percent on a majority of Regional Democratic Councils (RDCs). Overall, women's representation in the first tier of local government, National Democratic Councils (NDCs), was 34 percent in 2011; it has remained consistently over one-third for successive years though declining to 29 percent in 2015. Several females were elected to leadership positions in NDCs with a total 19 Chairpersons and 24 Vice Chairpersons being women, representing 27.1 percent and 34.8 percent, respectively. At the level of the Cabinet, women comprised 33 percent of all members from 2014 to 2019. The current executive appointed ten women as ministers; three women hold positions as Cabinet members, while the remaining seven women are junior ministers (SDG Target 5.5).

Notwithstanding the varied participation in governance, statistics from the Ministry of Social Protection indicate that there were 2,644 reported cases of violence against women alone in 2013. Under-reporting seems to be prevalent. However, it should be highlighted that, Guyana has made notable strides towards empowering vulnerable groups and, more so, proactively combatting violence against women and girls, particularly as it relates to human trafficking and sexual exploitations. A notable achievement is Guyana's current ranking as a Tier 1 country on human trafficking²⁰, up from Tier 2 in 2015 (SDG Target 5.2).

Economic empowerment is also critical for reducing inequalities between males and females. In this regard, various opportunities exist, open to all, as well as targeted to women, which further promote empowerment. These include: providing access to micro financing to start small income generating activities, through programmes such as the Women of Worth (WOW) Loan Programme and the People of Worth Entrepreneurial Resources (POWER) Loan Programme²¹. Other initiatives have included: development and implementation of a range of awareness programmes and other services such as the provision of shelters, in Regions 2 and 6, for victims of domestic and sexual violence; increasing the social assistance in the form of monthly cash payments to persons in difficult circumstances; implementation of a policy on the reintegration of teenage mothers in the education system which includes support measures to continue their secondary education; continued expansion of Obstetrics and Gynecology (OB/GYN) services including high risk clinics, and other OB/GYN consultations; and establishment of maternity waiting homes to accommodate pregnant women and their families from rural locations during pre and post-delivery (SDG Targets 5.1, 5.2, 5.5., 5.6 and 5.a).

18 See Women in Parliament in 2015, Inter-Parliamentary Union available at <https://oig.cepal.org/sites/default/files/wip2015-e.pdf>

19 See The Local Authorities Elections Laws Act No. 15 of 2000

20 Taken from the United States Department of State, 2018 Trafficking in Persons Report

21 Apart from the access to soft loans, women benefitted from training in such areas as basic entrepreneurial skills, networking, basic accounting, advertising and packaging. To date, 3,422 loans were issued to 3,296 persons (including repeat borrowers).

Challenges, Emerging Issues and Addressing the Way Forward

The challenges of data availability, quality and timeliness remain a major hurdle in programme targeting and policy formulation for gender-related issues. Key among the data gaps is employment statistics which are crucial to inform policy and the design and evaluation of programme effectiveness. Guyana's central statistical office has, in 2017, commenced the conduct of a continuous labour force survey which should help alleviate these deficiencies; though the relevant agencies will continue to work with the Bureau of Statistics to ensure that the relevant data points are captured.

Institutional strengthening will also be intensified in parallel with data systems strengthening in order to improve the efficacy of the latter. This becomes especially necessary given that, traditionally and on a national level, Guyana's national planning documents, when they have associated indicators, rarely include disaggregation by sex, age, ethnicity and/or geographical area. They also rarely identify relevant risks or issues related to gender inequality and discrimination against women and girls²².

Aside from data, Guyana's culture and cultural history also contributes to the challenges faced in advancing gender equality. Traditionally prescribed gender roles may have discouraged women from pursuing careers in medium to large-scale farming, manufacturing or mining and this has resulted in lower numbers of women in leadership roles in these sectors. Oftentimes, men are seen as the chief producers and as such have been frequent beneficiaries of support initiatives. It should be noted that consistent efforts have been made to reverse and eliminate the persistence of gender stereotyping, negative cultural attitudes and other practices which discriminate against women. However, there are some cultural practices which are challenging to address due to the value system in some communities.

The portrayal of gender-stereotypes in the media has also restrained the pace of eliminating gender disparities. For example, excessively sexualised portrayal of women in videos, songs and other forms of media has resulted in skewed perceptions and attitudes. The same is applicable for men and boys, often depicted as needing to be 'macho' and less sensitive in their treatment towards women²³. This has become an area of concern in more recent years, especially in the area of music.

In spite of the challenges faced, Guyana will continue to endeavour to strengthen and widen partnerships with groups outside of the public sector in an inclusive manner, in keeping with the NGSIP. Support will need to be garnered from institutions such as trade unions, private sectors, civil society, NGOs and ordinary community members such as taxi drivers, bus drivers and barbers. All stakeholders must be fully engaged in partnership, as they are all key to the success of the gender policy.

Complicating the nuances of the Guyanese experience with gender equality and empowerment is the influx of foreign nationals from bordering areas of conflict which poses a risk in terms of safety and trafficking in persons. To address this issue, the Ministerial Task Force on Trafficking in Persons has strategically intensified its awareness campaigns and seeks to promote greater inter-agency collaborations, particularly with the judicial arm to ensure that justice can be served to this vulnerable group of our society.

The relationship of poverty and gender equality must be acknowledged as low-income households are more often times headed by women. The effects of poverty ultimately reduce the possibilities of equality for these families, and ultimately their women and girls.

Lessons Learned

A key lesson underlying the challenges faced in ensuring equality for all is that related to institutional strengthening. Strong institutions underpin effective policy and programme formulation and delivery, and this includes strengthened data systems to drive evidence-based decision making and results-based planning. This will allow for the relatively small-scale, more effective, gender empowerment initiatives in Guyana to better demonstrate the efficacy of increased funding and expansion.

The success of these empowerment initiatives will also hinge on their ability to effectively derive behavioural change in society. While inclusivity is a recurring theme across goals, it is perhaps most important for gender equality given the deep linkage to societal and cultural traditions. It is these traditions, particularly stereotypes, perpetuated by society that contributes to gender disparities, discrimination and domestic violence, among other negative relations. As such, broad-based participation and inclusion of all segments of society is paramount to achieving Guyana's targets with regard to gender equality and empowerment.

22 See the Study on Indigenous Women and Children in Guyana, UNICEF, 2017 Available at https://www.unicef.org/guyana/SitAn_on_Ameridian_Woman_and_Children_-_Final-web.pdf

23 Taken from The Situation Analysis of Children and Women in Guyana, UNICEF, 2016

Table 8 - Select Indicators for Gender Inequality, Guyana 2017 HDI Statistical Update

Indicator	2017
Gender Development Index (GDI)	0.948
Percentage of births delivered by adolescent females	24
Child marriage, women married by age 18 (% of women ages 20–24 years who are married or in union)	30
Estimated gross national income per capita, female (2011 PPP \$)	\$4,543
Estimated gross national income per capita, male (2011 PPP \$)	\$10,295
Female share of employment in senior and middle management (%)	35.4
Female share of graduates in science, mathematics, engineering, manufacturing and construction at tertiary level (%)	5.2
Gender Inequality Index (GII)	0.504
Human Development Index (HDI), female	0.631
Human Development Index (HDI), male	0.666
Maternal mortality ratio (deaths per 100,000 live births)	133
Share of seats in parliament (% held by women)	31.9
Total unemployment rate (female to male ratio)	1.77
Youth unemployment rate (female to male ratio)	1.24



SUSTAINABLE DEVELOPMENT GOAL 6:

ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

Context and Key Achievements

Guyana, whose name originates from the indigenous word for water, 'Guianas', has abundant surface and groundwater supplies near all populated centres. Surface water resources come from fourteen main rivers, and groundwater is abstracted from two main aquifer systems on the coastal plain. According to the Food and Agriculture Organisation (FAO), Guyana's internal renewable water resources are estimated at 241,000 million m³ per year, and total renewable water resources at 271,000 million m³ per year (2015) (SDG Target 6.6). Notwithstanding this abundance of water resources, Guyana still faces significant challenges in extracting, treating and efficiently distributing quality potable water throughout the entire country, particularly in the hinterland regions.

The governance of water resources is guided by the Water and Sewerage Act 2002, and primarily managed by Guyana Water Incorporated (GWI). Currently, investment in water and sanitation is based on the guidance of the Water and Sanitation Sector Strategic Plan (2017 – 2021). Crucial areas of focus for the Plan include: expanding the customer base in hinterland communities; reducing non-revenue water, which includes rapid responses to reported leaks and sewerage related complaints; replacing the aging distribution lines in the capital city, and; utilising solar technology for the sector's energy needs. The plan also supports the ambitions of Vision 2040, for example, through promoting sustainable consumption and production by aiming to establish "municipal wastewater treatment especially in new towns, in keeping with the country's green initiative" (SDG Target 6.6). With support from the Inter-American Development Bank (IDB) and the European Commission, new water treatment plants are being constructed in Regions 3, 4 and 6, at Uitvlugt, East Bank Demerara, and Sheet Anchor respectively. This will contribute significantly towards increasing the treated water coverage and the level of service for more than 60,000 residents, as well as reduce non-revenue water.

Additionally, a modern Integrated Water Use Policy is in draft, and has implications for the establishment of a proposed National Water Council (NWC). Once established, the Council will comprise a wide cross-section of water users and administrators who will work to ensure an integrated approach to water security and management. Also in draft is the Groundwater Management Plan which, once approved and implemented, will aim to protect and guarantee reliable and affordable supply of potable water from groundwater resources (SDG Target 6.6).

In addition to the works advanced on the strategic framework and institutional architectures for water, notable interventions in the water sector, between 2015 and 2017, have resulted in about 70,000 residents being able to access clean water for the first time. These interventions included the construction and expansion of water treatment plants, upgrading and installation of distribution and transmission mains, installation of district metered areas (DMAs), and the drilling of new wells. Residents across the country benefitted, from these interventions. Additionally, Regions 1, 3, 6, 7, 8 and 10 received improved access to water through the drilling of new wells, installation of new mains, and upgrade of existing infrastructure, with Region 7 benefitting after almost 10 years and Mara, in Region 6, after 5 years (SDG Target 6.1).

Data has shown that, generally, Guyanese are benefitting from improved water sources; specifically, the proportion of coastal population receiving treated water has improved from 51 percent, in 2017, to 61 percent, in 2018 (SDG Target 6.1). The proportion of hinterland population receiving treated water also increased. In most of the hinterland communities, potable water is abstracted from drilled wells and supplied directly to communities and there is consistent monitoring of the water quality on a monthly basis to ensure the water is potable. For surface water, disinfection is done to ensure it is potable and this is being done in Matthew's Ridge, Mabaruma and Barbina where water is supplied from springs. Additionally, GWI has set up a laboratory in Lethem that tests the water quality frequently within this region from the different communities to ensure the water is potable. In addition, water samples are sent out to a central laboratory in Georgetown for Regions 1, 7 and 8 for testing. Notwithstanding, significant work remains to be done in the hinterland region.

Guyana's potential for water resource exploitation is largely untapped. The annual per capita water availability is 314,963 m³, indicating that Guyana is rich in freshwater resources. In 2012, the UNDP estimated that the total water withdrawal by all sectors to be around 1,444 m³ per capita, with agricultural production accounting for 94.1 percent of the national total, provided by 485 kilometres of main canals, 1,100 km of secondary canals and four artificial conservancies. About 4.2 percent of the national total withdrawal was taken to meet the domestic needs of the municipalities, while the industrial sector utilised about 1.4 percent. Though, as mentioned previously, it is not the availability of this resource that hampers progress towards improved livelihoods but, rather,

the cost of providing equitable access across the country is prohibitive particularly in the hinterland.

To advance efforts to improve water quality, the Water Quality Department was established in 2015, which consequently gave rise to the establishment of four minilabs between the period 2015 to 2019. These minilabs are located in Regions 4, 6 and 9, and one is currently being constructed in Region 3. The minilabs lend support to the central laboratory by facilitating more frequent water quality analyses and surveillance in the treatment facilities and in the respective communities. Additionally, in August of 2018, the central laboratory achieved its national certification by the Guyana National Bureau of Standards (GNBS) as a certified testing laboratory competent in a number of analyses. The certification is the validation of the competence of GWI's laboratory, its ability to deliver accurate and precise information to customers and that whatever water quality information generated by the water company, is accurate and reliable with the highest level of precision.

As is the case with installing and replacing water distribution systems, affordability hampers the country's ability to effectively address waste production and management. The management of waste in Guyana is governed by a combination of authorities addressing both solid waste and wastewater. Though this function naturally falls to local democratic organs, central government has had to provide significant support given the significant resource and institutional challenges faced by NDCs and municipalities over decades. The Haags Bosch Sanitary Landfill, established by the central government, is the only site that has numerous environmental safeguards in place and can therefore be considered as safe for disposal. Since 2015, the site has undertaken compaction of waste, application of daily and intermediate soil cover and, construction and operations of a leachate treatment facility. There are a total of 19 other dumping sites across the 10 administrative regions of the country, but they are open dumping sites and are not commensurate to a sanitary landfill such as Haags Bosch (SDG Target 6.2).

There has been collaboration with the Environmental Protection Agency (EPA) to determine which of the aforementioned 19 sites can be upgraded to a more controlled facility and which must be closed. As a result, plans are underway for four of the open-dumping sites to be upgraded so that they can operate as controlled landfills within the municipalities of Bartica, Lethem, Rose Hall and New Amsterdam, two of which have recently been named towns. In November 2018, an assessment was made of the system of collection and transportation of solid waste generated in Georgetown. That evaluation showed the collection rate is

approximately 80 percent (SDG Target 6.2).

Solid Waste in Georgetown is 40-50 percent organic material and therefore a tremendous opportunity for composting. The authorities have rolled out a composting sensitisation programme commencing with 60-second public service announcements. They are also introducing organic composting technology to secondary schools and communities. The roll-out of this programme is still in its infancy; however, a more aggressive approach is anticipated in reaching more schools and communities (SDG Target 6.b).

Guyana has also adopted new standards for the construction of septic tanks for on-site domestic wastewater treatment. Capacity building is on-going for the environmental and health personnel within the Local Democratic Organs (LDOs) in the principles and techniques of the design, construction, operations of a new septic tank design. This new design is also being shared with new home owners when submitting their plans for approval by the LDOs (SDG Target 6.b). The intention is to integrate new technologies through updated regulations in the existing processes so that there is a natural uptake in improved solid waste and sanitation practices. Even though over 80 percent of the population was using 'improved' sanitation services by 2015, only about 20 percent of the population had access to sewerage. The current sewage system covers just 48,000 people living in Georgetown — about 6.5% of the national population, while the rest of the population seeks individual solutions such as septic tanks (SDG Target 6.2).

A key intervention with regard to wastewater is the establishment of the Guyana Wastewater Revolving Fund (GWRF), in 2012. The facility offered loans to private businesses for construction and/or rehabilitation of wastewater treatment facilities at a rate below prevailing market interest rates. The GWRF, under the Caribbean Regional Fund for Wastewater Management, ended in 2015, but funds remained available. Private sector enterprises continue to be encouraged to apply to the fund and thereby to benefit from available local and international technical and financial expertise. There is no public wastewater treatment facility in the country (SDG Target 6.3). Additionally, to address the management of wastewater and solid waste more effectively, Guyana is also introducing environmental education, including solid waste separation and storage (SDG Target 6.b).

Public education is also a key factor in effective waste management. Continued, training and capacity building initiatives were undertaken in the areas of water quality, sewerage and the sanitation by the GWI for its technical staff, particularly in the areas of well drilling and maintenance,

filtration and distribution systems, water quality testing and analysis, wastewater treatment and management, and Geographic Information Systems. During 2017 to 2018, GWI embarked on a new initiative to clean the water storage tanks at all nursery, primary and secondary schools countrywide. All tanks were cleaned, disinfected and tested in the nursery, primary and secondary schools particularly in Regions 4, 6 and 10.

Challenges, Emerging Issues and Addressing the Way Forward

Despite progress over the past decade with respect to access to safe sources of water and sanitation, water and sewage services in Georgetown and other coastal areas still face institutional, financial and operational challenges in meeting the 2030 targets for water quality, water availability and overall improvements in sanitation services. The quality of water supply services is hindered by substandard water distribution networks, with 50 percent to 60 percent of water produced going unaccounted for at the national level (SDG Target 6.4). GWI has already begun implementing a Non-Revenue Water Programme in order to reduce losses; this entails expanding the metering programme, improving transmission and distribution, and upgrading the billing system. The Programme has made some progress since 2015 until 2018, specifically with regard to metering resulting in metre-coverage improving from 45 percent to 52 percent, however, increased investment is required to accelerate and sustain these initiatives and minimise water wastage (SDG Target 6.4).

Education continues to be an avenue for changing public behaviours which are intricately linked to poor disposal practices and care for the waterways. However, these programmes need to be scaled up to be effective in reducing waterway contamination and keeping water sources clean (SDG Target 6.3).

Furthermore, the level of access to treated water in the Hinterland is untenable, especially from public health, poverty and human well-being perspectives. The difficulty of access between the coast and hinterland results in prohibitive costs of expanding water service coverage, especially to remote and other far-flung areas. Soil-type differences between the various regions of the country also create challenges and inflate the level of investment required. Though the level of access is increasing with the capital subventions from central government, there is further need for capital funding to continue this advancement. Moreover, with support from the Japan-Caribbean Climate Change Partnership that is being

implemented by UNDP in collaboration with the Office of Climate Change and GWI, a rig is currently being procured. This will facilitate the drilling of new wells in hinterland communities at a faster rate and is expected to benefit the 57 communities of Region 9 (SDG Target 6.1).

The continued use of septic tanks and pit latrines in municipalities and villages also pose risks to groundwater, especially during high rainfall events and floods (SDG Target 6.2). The practice of discharging incompletely treated sewage, that is partially treated effluent from septic that did not receive secondary treatment, into waterways is common across the country. This unhealthy practice is due to factors such as low percolation rates on the coast, as well as inadequate public information of septic tank construction and maintenance. The country requires investments in constructing, for the first time, wastewater treatment plants, especially to cater for densely populated areas. To this end, the preparation of designs is already underway (SDG Target 6.3).

Solid waste management in industry has also posed a challenge, particularly with regard to chemical pollution from mining and agriculture. The use of pesticides and nitrate-based fertilisers affects the quality of surface water available for human consumption, and present health risks to communities. Mercury pollution from mining is of major concern, particularly in the interior hinterland areas where gold and bauxite mining, among others, are prominent. Guyana intends to restrict the use of mercury in the mining sector in the near future, and regulations for the agriculture sector are being carefully considered, focusing particularly on the issues of competitiveness and the implications of alternatives on cost of production (SDG Target 6.3).

Most importantly, behavioural change with respect to solid waste disposal and storage has been very slow. As mentioned, this also has implications for wastewater and water safety (SDG Target 6.3). Disposal is not completely adequate, partly because of the difficulty faced in finding suitable lands for final disposal, especially due to the nature of the soil on the coast. Other challenges are: inadequate number of the appropriate types of collection and transportation vehicles for the management of solid waste; the high cost of construction of sanitary landfills; increasing incidences of illegal dumping; the absence of modern legislation that governs solid waste management; low level of enforcement renders illegal dumping widespread; lack of motivation to reduce waste due to the absence of incentives and penalties, and tipping fees at the disposal sites are not in place (SDG Target 6.2).

Insufficient financial resources for changes required to address the aforementioned challenges is a perennial concern that impacts Guyana’s ability to accelerate improving access to and quality of water and sanitation services. There are inadequate operating budgets – however there is scope for recovering costs in this sector through the application of the appropriate charges. While, the current situation is one of low water tariffs and low collection rates across the board for all uses of water, any consideration for revising the pricing of these services must be had in the context of affordability. The GWI approached the public utilities regulatory body in an effort to have it consider and approve a harmonised tariff rate with a social benefit component in an effort to address the inequities and provide increased financial inputs for improved service delivery and expansion.

Overall, the lack of data and capacity for data analysis has is an area that has to be addressed for the water and sanitation sector. There is insufficient data collection to assess future demand for water and to establish national and sub-national estimates on the critical demand of freshwater. Industrial development and mining, coupled with the creation of towns and urban expansion is expected to raise the threshold for the critical demand of freshwater in the years to come. A lack of a systematic monitoring programme to regularly collect qualitative and quantitative data, including information on recharge rates of the underground aquifers will impede the ability of the country to effectively plan for the future. Currently, the GWI is undertaking an aquifer study which is expected to provide the relevant and updated data on the state of the aquifers and guide future decisions in this regard. In addition to the pursuit of coastal aquifer studies, the hinterland aquifer systems will also be studied in an unprecedented way using state of the art geophysical investigation technology to map out ground water reserves in rocky formations across various hinterland regions. The technology will facilitate a cost effective well drilling programme for water wells in drought prone areas.

Further, the country’s borders are porous to the influx of foreign nationals who construct illegal reservoirs to establish fish farms in the Hinterland Regions. These illegal infrastructure cause blockages and affect the natural hydrology of the area which disrupts the availability of surface water to communities downstream.

Lessons Learned

The importance of citizen participation has emerged as paramount across many Sustainable Development Goals. More so with water and sanitation, public behaviour has a significant impact on the sector outcomes and efficiency

of the relevant services. It is evident, in Guyana’s case, as garbage is prevalent in waterways in the capital city. As such, inclusive programme development, especially with regard to public education, will serve to improve and sustain greener waste disposal practices by garnering public buy-in and participation. This should improve and sustain outcomes for the sector as well as others such as health.

However, public programmes must be pursued in an integrated manner, given the multidimensionality of many of them and their desired outcomes, and led by documented policy guidance. They must also be supported by sound legal frameworks and appropriate technical support. This lesson is evident for Guyana, demonstrated by the experience of lacking an overarching integrated water use policy and lacking a sufficient regulatory framework for waste disposal, especially as it relates to mining and industry. Consequently, these can have detrimental effects on public health and livelihoods.

Ultimately, it is data and financing that will support the capacity of a system to effectively undertake collaborative and comprehensive programmes. Strong data systems are required to understand the issues in the sector and effectively plan its programmes in a strategic and cost-effective manner. It is also required to effectively engage the public and to ensure sustainability. Affordable and sustained financing, a recurring issue for small economies like Guyana, is needed to undertake and maintain the large-sunk-cost investments like wastewater treatment plants, sanitary landfills and hinterland water network expansions and upgrading. Cost recovery fees, while they may be practical for more developed countries, must be carefully examined in Guyana’s context and countries with similar circumstances of existing and significant developmental needs and gaps, as well as the prevailing cost of living and relatively low wages. Therefore, maintaining affordability in the context of ability to pay is a key factor in increasing equitable access and proper usage of these services.

Table 9 - Select Water and Sanitation Indicators, World Bank Development Indicators and Moody’s Analytics Economic Indicators - Guyana

Indicator	2015
Population Using Improved Drinking Water	98.3
Population Using Improved Drinking Water, Urban	98.2
Population Using Improved Drinking Water, Rural	98.3
Population Using Improved Sanitation Services	83.7



SUSTAINABLE DEVELOPMENT GOAL 7:

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Context and Key Achievements

Guyana has historically been heavily reliant on imported fossil fuel to meet its energy needs, with fuel importation over the past ten years growing by approximately 5 percent. The challenge of delivering affordable and reliable electricity continues to beset successive governments but has improved over the years. Generation shortfalls still exist that result in periods of load shedding. While energy demand has increased in the range of 4 to 5 percent in the past few years, it is projected to accelerate due to increased economic activity and development²⁴.

The GSDS states that the “transition towards renewable energy and greater energy independence” will be accomplished through transitioning to an optimal mix of renewable and clean energy in the energy sector; providing affordable energy, especially electrical energy to all citizens; and increasing energy efficiency (SDG Target 7.2). The power and transport sectors account for over 70 percent of total end-use consumption of total petroleum products. Therefore, actions targeted at reducing the consumption of non-renewable energy will target the electricity and transportation sectors. Guyana imports 92 percent of its energy needs with fossil fuel imports amounting to 17 percent of GDP, in 2016.

In an effort to increase access and reduce cost within its coverage areas, the Guyana Power and Light Inc. (GPL) has commenced an Unserved Areas Electrification Programme to the tune of approximately G\$500 million that will provide electricity to over 50 communities countrywide. GPL’s Development and Expansion Programme also includes the construction of new substations and distribution lines which will improve access and quality of service. Cost reduction is pursued via the integration of renewables into grid and utilising a higher ratio of heavy fuel oil (HFO) in the fuel mix.

To support the transition from the use of imported fossil fuels towards indigenous and renewable energy sources, Guyana is working to ensure that the appropriate enabling frameworks are in place, which includes a draft Energy Policy, prepared in 2016, and Vision 2040. The draft policy updates the 1994 Energy Policy and takes into consideration issues such as climate change and environmental sustainability, and recent developments in renewable energy and energy efficiency, as well as, international agreements. Further, an Energy Implementation Working Group was established, comprising

representatives from government agencies, utilities and supporting regional and development partners, to facilitate the overall planning, development, commissioning and operation of individual projects within a programmatic framework. The Group was formed in 2016, and has had 19 meetings since its formation. In addition, the Public-Private Partnership Policy Framework which was developed, in 2018, will benefit infrastructure projects such as hydropower plants and energy farms.

Guyana set itself the notable target to transition to the use of near-100% renewable and clean energy with an optimised mix developed from its national capital given adequate financing. The country has extensive potential for renewable energy resources such as hydropower, solar, biogas, biomass and a potential for wind energy in some parts including the coastal regions. Approximately 14 percent of installed generation capacity is from renewable resources.

Towards achieving Guyana’s transition, socio-economic development and poverty alleviation objectives, a Hinterland Energy Strategy was drafted, in 2013, as a guide for energy development for hinterland households and communities and aims to provide for access to affordable, reliable, modern energy systems and services. The Strategy recognises that energy is a key element in bridging the development gap between the coast and the hinterland, as it is a critical input for the provision of basic services across sectors, such as health and education. Of the rural population not connected to the national grid, 30 percent access electricity through local photovoltaic (PV) installations. In excess of 19,000 solar PV systems have been installed in nearly 200 communities from 2007 to 2017. These systems were installed in homes to power small radios and provide lighting for activities after dark, such as school assignments and craft making. Additionally, systems were installed in schools and health clinics for lighting and powering appliances. This is particularly critical for health facilities as vaccines are required to be kept in cold storage. Further, energy efficient wood stoves, solar cookers and bio-digesters were installed in various communities in both homes and schools to reduce firewood consumption and respiratory illnesses from smoke inhalation (SDG Targets 7.1 and 7.2).

Guyana’s daily average solar insolation incident is among the highest globally and there is high potential for solar development. The public sector has been leading the way in the transition towards greater renewable energy use.

24 As projected by the Power Generation System Expansion Study by Brugman SAS.

Solar PV systems have been installed at over 200 public buildings including exhibition centres, schools and hospitals. Additionally, solar powered street lights in public spaces have been installed (SDG Target 7.2). The country has projected investments of nearly US\$40 million in solar projects and the private sector has also installed solar PV systems. One commercial bank also offers a 'Green Loan' for persons interested in installing grid-tied solar schemes. However, the legislative framework governing the electricity sector does not provide for feed-in tariffs at the moment.

Notably, Guyana completed the construction of its first solar PV farm in Mabaruma, Region 1 – a hinterland region – with an installed capacity of 400 kW, in 2018. In addition, Guyana, as a member of the International Solar Alliance (ISA), has made a submission for support for the implementation of another programme targeting off-grid Solar PV with storage for hinterland communities and rural electrification. The programme is intended to provide renewable and sustainable electricity, and potable water to hinterland villages. Further, with support from the Canadian International Development Agency and the Latin American Energy Organisation, solar powered freezers, solar PV Panels, solar fruit dryers and energy efficient cook stoves were provided to promote local community-led businesses in Powaikoru - Region 1, Moraikobai - Region 5, and Shulinab - Region 9 (SDG Targets 7.1 and 7.2).

Aside from solar, Guyana has also been actively pursuing other opportunities for other forms of renewable energy. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has provided financial support for the installation of a 20kW run-of-the-river type micro-hydropower plant at Hosororo in Region 1, comprising a Weir/Intake structure, Penstock and Powerhouse which will benefit residents of the Mabaruma district, Region 1. This project will be commissioned during the second half of 2019 and is expected reduce fossil fuel consumption for electricity generation and increase energy security. Further, with support from the Inter-American Development Bank (IDB), wind measuring equipment will be installed in 2019 along the coast to collect wind data for a study regarding the establishment of wind farms to supply electricity to the national grid (SDG Targets 7.1, 7.2, 7.a and 7.b).

A number of hydropower projects have been developed in the past but were discontinued due to financial constraints or damage from natural hazards such as landslides. Further, a 2016 study by Brugman SAS identified 19 potential sites for hydropower facilities and several other assessments are being undertaken. For example, in 2011 an MOU was signed with Brazil for feasibility studies for 4,500 MW hydropower

projects in Upper and Middle Mazaruni areas, intended for export to Brazil and funding is being sought for mini/micro hydroelectric projects for hinterland communities (SDG Targets 7.2 and 7.a).

Guyana's biomass resource is another source of power-generation. It includes waste from the rice and sugar (molasses and bagasse) industries, forest residues and household and animal wastes. For example, the Guyana Sugar Corporation - one of Guyana's largest industries - has traditionally used bagasse to provide for the electricity and steam needs of their estates, while the Demerara Distillers Limited - a leading producer of rum - uses distillate waste to produce biomethane for use in its boilers. However, technology constraints need to be addressed to sustainably improve and expand the use of this resource.

The implementation of the various policies and programmes, to date, have resulted in approximately 82 percent of the country's population being connected to the national electricity grid, though approximately 12 percent of the population – primarily in the hinterland – has little access to affordable and reliable energy services. About 90 percent of the urban population and 81 percent of the population in rural areas have access to electricity (SDG Target 7.1).

Further, institutional strengthening for the development of energy efficiency continues to be prioritised in order to achieve sustainable energy saving and promote investment to reduce greenhouse gas emissions. Strengthening initiatives included training in energy audits and energy efficiency management, demonstration projects and the conduct of a national energy efficiency workshop. Moreover, Guyana recently undertook multiple initiatives aimed at changing behaviour towards energy conservation. This included public awareness through sustainable energy presentations to schools, ministries and other budget agencies, private sector organisations and NGOs; radio and television advertisements; documentaries; infomercials; publications on energy awareness tips through local newspapers, and; the distribution of brochures, booklets and posters (SDG Target 7.3).

Additional efforts towards improving energy efficiency included the donation of 2,000 LED (light-emitting diode) bulbs for low income and vulnerable households and the installation of 26,111 LED lights and 4,526 occupancy sensors in public buildings during 2015-2018. Implementation of energy efficiency pilot projects has been completed at Leonora Cottage Hospital, National Cultural Centre and Ministry of Public Infrastructure Works Services Group Building. Energy assessments, replacing inefficient street lights with LEDs and additional public awareness have also buttressed existing work to improve efficiency (SDG Target 7.3).

On the fiscal side, Guyana has provided incentives, including VAT and import duty exemptions for energy efficient lighting, renewable electricity equipment; solar appliances, water heaters and fruit dryers; and solar and other energy efficient cookstoves. Tax exemption and tax reductions on newer vehicles with smaller engines, tax reductions for hybrid and electric vehicles, tax exemptions for the installation electric vehicle charging stations and for transport biofuels have also been provided for (SDG Target 7.2 and 7.3).

Challenges, Emerging Issues and Addressing the Way Forward

The challenges related to the development of the energy sector through increasing access to energy, improving energy efficiency and developing renewable energy include: lack of harmonisation of the energy sector; lack of adaptation of modern energy technology; insufficient fiscal incentives in the effort to promote business development; lack of specific skills for implementation of energy projects; inadequate access to financing for renewable energy and energy efficiency projects; and high interest rates from banks to finance green projects.

Central to the underdevelopment of the energy sector are the critical weaknesses in the GPL's operations, such as: persistence of high electricity losses after several years of trying different strategies to curb them and low quality of service, partly due to an aged, weak and overloaded transmission and distribution network. These factors, together with low technical and executing capacities of GPL, high generation costs, and constraints to raising already-high tariffs, all contribute to poor financial results, which in turn, limit the company's ability to finance its capital expenditures. However, the company has implemented some industry best practices – it has developed the necessary grid codes and is working on the feed-in tariffs and other technical and institutional requirements to encourage large-scale distributed generation on its networks.

Advanced Metering Infrastructure (AMI) will provide benefits to the company, consumers and society as a whole – this can be summarised as customer service, system operation and financial benefits. As part of GPL's Loss Reduction Plan, the use of smart meters along with the required Infrastructure will be implemented within its coverage areas. AMI will provide the company with an opportunity to access, understand and monitor consumption and network data at lower voltage levels of the network. GPL recognises that smart metering is the key strategy to reducing losses, and the tool which will allow the company to more effectively plan and develop its low voltage network to meet the current and future challenges. AMI also facilitates the installation of bidirectional meters for grid tied

Customers to record and store any energy exported by the customer, even in the absence of the required legislative measures to accommodate a feed in tariff.

Further, providing electricity to the communities in the hinterland remains difficult due to the high cost of access and, consequently, infrastructure expansion. Notwithstanding, electricity provision is critical to socio-economic development and Guyana will continue to invest accordingly. During 2019 to 2021, a series of solar PV Farms, totalling 5.2 MW is planned for Bartica, Lethem, Mahdia, Port Kaituma, Kwakwani and Matthew's Ridge. Additionally, 400 stand-alone solar-powered streetlamps will be installed across the country in 2019 and 2020, while some 80 government buildings will be outfitted with PV panels. This initiative alone has the potential to save some G\$114 million in energy costs annually.

The development of renewable energy requires additional studies to determine the best locations and most appropriate technologies and cost benefit analyses to ensure that investments in the sector are economically viable. GPL is in the process of completing a comprehensive assessment of energy supply needs, collaborating with the private sector to understand future demand for energy. Guyana is also examining the feasibility of using natural gas – a cleaner fuel than petroleum – for electricity generation. Although much progress has been made in the study and development of the solar and hydro resources, intensified efforts are required towards the development of wind and biomass resources as part of the energy matrix diversification.

The sector also faces challenges of sustainability, particularly following the conclusion of rural electrification projects, in terms of capacity and financing at the community level. Training and educational programmes will be implemented in technical and vocational schools and other institutions to provide the support skills needed for the energy sector such as project and construction management, equipment installation and repair etc. To supplement training, public education and awareness programmes will continue to provide consumers with information and tools to reduce energy consumption and expenditure. Guyana will implement a public awareness strategy focussing on the benefits of energy efficiency and renewable energy to encourage participation in energy efficiency programmes in all sectors. Support is being leveraged from the Global Green Growth Institute to assist the private sector to transition to renewable energy through an energy service arrangement.

Future energy efficiency plans include continuing to conduct energy audits, developing technology and regulations for energy efficient buildings, encouraging energy-conscious

procurement within the public sector, research and developing energy efficiency standards and labelling schemes and promoting energy management standards. Also, as part of the NDCs, in 2019, inefficient lighting will be replaced at residential and commercial buildings connected to the six Hinterland utilities in Mabaruma, Port Kaituma, Matthew's Ridge, Mahdia, Lethem and Kwakwani, to reduce energy consumption. A similar programme is planned for Linden, Bartica, Leguan and Wakenaam in 2020 and a further roll-out is being considered for homes and businesses connected to the Demerara-Berbice Interconnected System (national electric grid) for the period 2021-2023.

Guyana will implement measures to increase fuel efficiency and reduce carbon emissions within the transport sector, which consumes 35 percent of the country's imported fossil-based energy. This will be accomplished for example by establishing vehicle and emissions standards; increasing the octane level of gasoline by blending with domestically produced ethanol from sugar cane. The Guyana Energy Agency (GEA) will also develop an implementation plan to incorporate energy efficiency in public buildings and associated building codes across all sectors. Minimum energy performance standards,

labels and certification for use of energy efficient equipment and appliances will be implemented and mandatory by 2030, with the goal of net-zero energy consumption in buildings. These initiatives will be complemented by monitoring systems, indicators and a database that tracks and measures compliance to facilitate reporting for the country's Nationally Determined Contributions (NDCs) under the Paris Agreement. The GEA and the Economic Commission for Latin America and the Caribbean (ECLAC), with the support of GIZ and the French Environment and Energy Management Agency, is working to develop a database of energy efficiency indicators for Guyana.

The regulatory framework will also be updated to allow for the use of feed-in tariffs, net metering and net billing. To facilitate grid interconnection and the uptake of renewable energy for electricity generation, a National Grid Code for the Integration of Distributed Generation has been drafted which provides a commercial and technical framework to accept electricity from renewable energy sources unto its distribution network and streamline the procedures for feed-in mechanisms. Plans are now underway for the implementation of this Grid Code.

BOX 7.1 - Renewable Energy Programmes

Several renewable energy programmes and projects are planned for the period 2019-2022, including:

- Construction of a 0.15 MW Hydropower Station at Kato, Region 8
- Guyana Hinterland Electrification Programme (Solar PV Grid-Tie Farms) where a series of solar PV Farms totaling 5.2 MW will be installed in Bartica, Lethem, Mahdia, Port Kaituma, Kwakwani and Matthew's Ridge.
- Mini-hydropower plants at Kumu and Moco Moco, Region 9 and Ikuribisi, Region 7
- Solar powered mini-grids in Hinterland communities under government funded projects and the International Solar Alliance initiative
- Solar powered stand-alone street lights and water pumps
- Government's Solar PV and Energy Efficiency Programmes for Public Buildings
- JICA funded Project for the Introduction of Renewable Energy and the Improvement of Power System in Guyana
- Wakenaam Solar PV Farm financed under the UAE-CREF
- Basic Needs Trust Fund Solar PV systems for technical/vocational institute
- Tumatumari Hydropower Project (2.2 MW)
- Construction of the Kato Hydropower Plant (0.15 MW)
- Hope Beach Wind Farm Project (10.4 MW)
- Solar PV farms for Demerara Berbice Interconnected System (national electric grid) totaling 30 MW solar PV Farms
- 1 MW solar PV Farm at Leguan
- 3 MW solar PV Farm at Anna Regina
- 4 MW solar PV Farm at Naarstigheid, Berbice
- 32 kW grid-connected Rice Husk Based Biomass Gasifier Power Plant
- Wind measurement project under IDB funded Sustainable Energy Programme for the development of wind farms.

Notwithstanding the numerous plans previously mentioned, the country still faces a lack of institutional capacity to implement a larger portfolio – an issue that has affected the energy sector as well. This could include deficiencies in various phases of a programme or project cycle as well as bottlenecks in institutional mechanisms such as procurement and human resource management. Guyana's ability to access financing is hindered due to insufficient capacity, as many donors require countries to undergo intensive processes before granting funding and restricting Guyana's ability to prepare the necessary proposals. Regardless, Guyana will continue to prioritise education and capacity building to ensure that all public programmes are effectively delivered.

Lessons Learned

Given the breadth of Guyana's energy agenda, institutional strengthening to implement the various identified initiatives to transform the sector, and country, is vital. Public institutions must be strengthened to ensure that initiatives are well conceptualised and designed, implemented efficiently and deliver the best possible outcomes. Capacities need to be built, particularly, in the conduct of designs, studies and monitoring and evaluation. This will mean relooking at mechanisms to attract and retain skilled personnel, and training, as well as improving institutional systems to remedy inefficiencies and minimise delays.

Another key lesson for the energy sector centres on ensuring sustainability of investments. In addition to laying the energy infrastructure, capacities need to be built at the local level to ensure continued and cost-effective maintenance. Additionally, stakeholder awareness and education must be continuous such that successive residents continue best practices of energy conservation and efficiency and businesses are able to make educated decisions about energy usage and generation options. Stakeholder buy-in is also critical in the pre-investment stages to ensure the efficacy of a particular project.

Finally, insufficient access to adequate and predictable financing continues to be the hindrance of many sectors, energy included, and a deterrent to the rapid achievement of national goals. Critical investments usually carry a large sunk costs as well continuous operational costs post-construction, all of which need to be factored into sustainability analyses and financing requirements in medium and long-term planning. A small economy such as Guyana, with a relatively large land area, will continue to face resource constraints until catalytic improvements are had to generate growth and sufficient indigenous revenues. Until then, access to concessional resources continue to be a key source of investment financing, though Guyana will also actively pursue other mechanisms for resource mobilisation, such as public-private partnerships.

Table 10 - Select Energy Indicators, Guyana Energy Agency, World Bank Development Indicators and 2017 Energy Report Card: Guyana

Indicator	Value
Percentage of population with access to electricity (2017)	90.9
Transmission loss rate in national grid (percent) (2017)	28.5
Portion of GDP spent on imported fossil fuels (percent) (2016)	17
Energy use (kWh) per capita (2017)	1,097
Energy intensity (2017)	6,403
Renewable energy as percentage of installed capacity (2016)	16.6

8 DECENT WORK AND ECONOMIC GROWTH



SUSTAINABLE DEVELOPMENT GOAL 8:

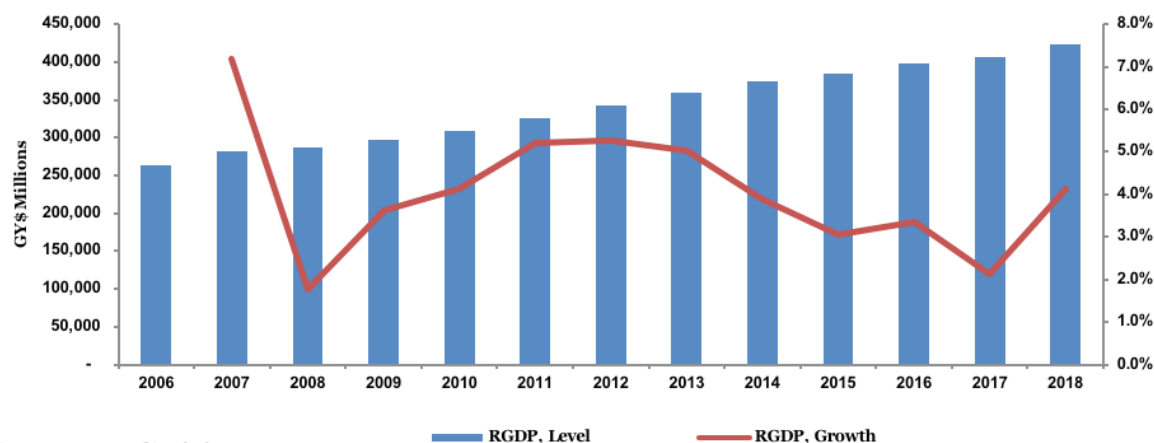
PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Context and Key Achievements

The Sustainable Development Goals recognise that economic growth alone is not a comprehensive measure of human improvement and wholesome development, and recognises a multitude of facets that must be examined, together, if progress in improving life for all is to be had. Notwithstanding the misnomer in equating the concept of economic growth with development it continues to be a widely used measure of progress. As such, economic growth features as one facet and is paired with decent work, and must be examined while being mindful of progress and challenges faced within the dimensions of sustainable development. Between 2015 and 2018, Guyana's economic growth averaged about 3.2 percent per annum even amid domestic economic restructuring, unsteady international commodity prices and geopolitical tensions (SDG Target 8.1). Unemployment, as at the fourth quarter of 2017, was 12.2 percent, a marginal decline from 12.5 percent recorded in 2012 (SDG Target 8.5).

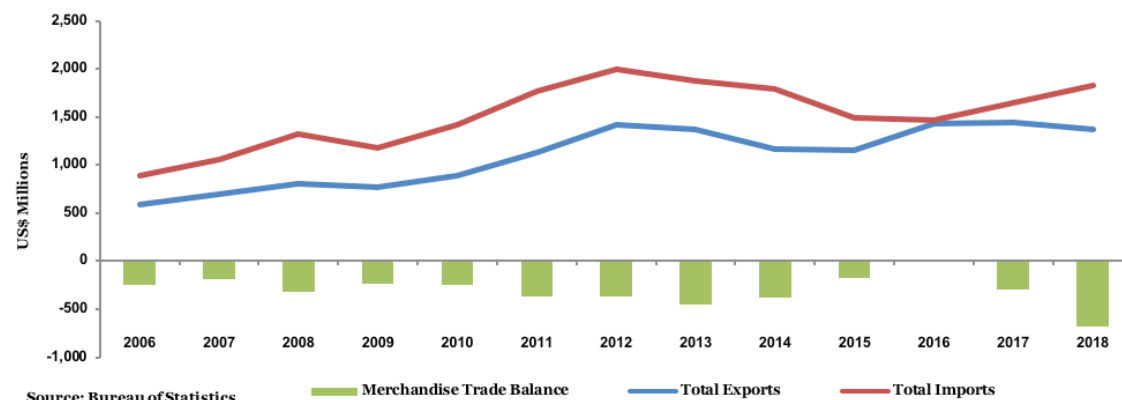
Guyana's economic growth is derived from a traditionally agriculture and extractive industry-based economy with increasing prospects expected from oil production and an expanding services sector. Notably, from 2015 to 2018, the largest contributors to growth were services, mining and quarrying, and construction. Specifically, agriculture and mining contributed approximately 30 percent to real GDP in 2018. However, expanding activities in the services sector, including increased wholesale and retail trade, transportation and storage, health and social services, information and communication, accounted for 53.8 percent of real GDP at the end of 2018 (SDG Target 8.2). Notwithstanding, the economy remains relatively undiversified with about 48.6 percent of the working population employed in the non-agricultural sectors and informal sectors (SDG Target 8.3).

Figure 6 - Guyana's Real GDP from 2006 to 2018, Ministry of Finance



Source: Bureau of Statistics

Figure 7 - Guyana's exports and imports, and merchandise trade balance from 2006 to 2018, Bureau of Statistics



Source: Bureau of Statistics

The limited diversification of Guyana's economy is reflected in the country's trade statistics, where sugar, rice, bauxite, gold and timber accounted for 83 percent of exports in 2018. The high dependence on these primary sectors for export earnings has persisted for much of Guyana's history. Guyana's economy remains vulnerable to commodity shocks as well as the effects of climate change. To mitigate these risks, Guyana has been consistently promoting diversification as the means to achieving a sustainable growth trajectory and a resilient economy and hopes to accelerate these efforts upon the implementation of the GSDS. This is especially vital to the future of Guyana in light of the impending production of oil, expected to commence in 2020. Vision 2040, which follows a number of national development strategies – 2000 National Development Strategy (NDS); the 2002 Poverty Reduction Strategy Paper (PRSP); and the 2009 Low Carbon Development Strategy (LCDS), clearly articulates the relationship between green and inclusive economic diversification and economic competitiveness. This means incorporating sustainable practices in key sectors such as agriculture, mining and forestry such that growth is decoupled from environmental degradation. Diversification will be geared to support non-traditional and value added industries and services, and small business development to be able to compete on international markets while also providing for skills development and decent employment opportunities for the average Guyanese (SDG Target 8.3).

An additional and key policy that has guided diversification efforts is the National Competitiveness Strategy (NCS) which prioritised the modernisation of four traditional sectors and sub-sectors: sugar, rice, forestry, and mining, and, also identified five additional sectors with the greatest opportunities for new growth and diversification: non-traditional agriculture, aquaculture, manufacturing, business process outsourcing/information technology, and tourism. The Ministry of Business Strategic Plan, the Green Business Framework and Guyana Tourism Strategic Action Plan: 2019-2025, among others, also elaborate initiatives to support private sector development and growth (SDG Target 8.3).

The tourism sector, in particular, has been increasing its contribution to GDP. Though not officially recorded in the national accounts, it is estimated that the tourism share of GDP has grown from about 3.3 percent, in 2015, to 4.3 percent, in 2018²⁵. Recent statistics have also shown an increase in visitor arrivals, in 2018, of 15.9 percent over 2017, with an annual growth rate of 8.8 percent on average since 2015. Noteworthy, the country was recently declared the world's

best eco-tourism destination by Internationale Tourismus – Börse Berlin, the world's leading travel trade show. In order to further support growth of the sector, a new licensing system was designed to foster improvements in safety, quality and sustainability regulatory standards; and also included the tourism private sector in the process (SDG Target 8.9).

Box 8.1 - Case study: Guyana's First Green Expo



Guyana's inaugural Green Expo and International Small Business Summit was held in Georgetown in October 2018 under the theme Sustainable economic growth through small business innovation, entrepreneurship and transformative government policies.

The Green Business Expo provided opportunities for small-scale entrepreneurs to showcase their green and innovative products and also for the Government to highlight its efforts to support them. Public initiatives like the small business procurement programme, the assistance offered by the Small Business Bureau, and the small business tax procedures, all strengthen the enabling environment and help small businesses thrive.

At the International Small Business Summit, the connection between small business and green economy was also in focus. In his keynote address, Winston Jordan, Minister of Finance, noted that small and medium-sized businesses have a vital role to play in the transformation of Guyana into a green economy. The Summit provided the platform for experts, entrepreneurs, academia, politicians and other representatives from 16 countries to exchange information and experiences in green economy initiatives.

The Green Expo was supported by the Ministry of the Presidency, UN Environment, Partnership for Action on Green Economy (PAGE), IDB, the African Business Roundtable, and the Small Business Bureau of the Ministry of Business.

25 Taken from Travel and Tourism Economic Impact, World Travel and Tourism Council, 2016 <https://www.wttc.org/-/media/files/reports/economic-impact-research/archived/countries-2016/guyana2016.pdf>

To inform wider policies for industry and trade, a Green Industry and Trade Assessment (GITA) was conducted in 2018 through collaboration with the Partnership for Action on Green Economy (PAGE). The Assessment expands on key components of Vision 2040 and the Green Business Framework and makes specific recommendations for green industry and green trade policies and programmes, which were presented to key stakeholders at a verification workshop in December 2018. Initiatives already undertaken are wide ranging and include: 1) reduction of corporation tax from 40 percent to 27.5 percent; 2) reduction of average effective income tax rate moving from a fixed rate system to a progressive system; 3) increasing government spending from G\$192 billion in 2015 to G\$254 billion in 2018; 4) stimulation of the ICT sector; 5) establishing systems to guarantee small business participation in public procurement; and 6) continuation of and increased budgetary allocations to several entrepreneurship and livelihoods programmes (SDG Targets 8.1, 8.2 and 8.3).

However, it is recognised that, regardless of the assessments, policies and programmes conducted and developed, a skilled labour force is required to maximise any of these opportunities. A strong education system is needed to produce the quality human capital needed to drive creativity and innovation, and entrepreneurship and small business. Innovation, in particular, will, in turn, serve to improve and develop new practices and technologies which are critical to ensuring a highly productive economy. Guyana is committed to prioritising education as the ‘mother of all goals’, not only because of its pivotal importance to resilient economic growth, but also because of its potential to positively and significantly impact all aspects of life. Consequently, there has been prioritised focus on curriculum reform across all levels of education, expansion of interventions to improve quality of STEM subjects and increased public expenditure on education from G\$31.8 billion to G\$42.5 billion from 2015 to 2018 (SDG Target 8.2).

Education also allows every citizen to participate meaningfully in the economy. Participation in the labour force is characterised by an unemployment rate ranging from 10 to 12 percent during the period 1991 to 2017. Unemployment is particularly high among the youth and more so for young men, with a youth unemployment rate of 22.9 percent recorded in the final quarter of 2017, down from 25.3 percent in 2012. To address this issue, Guyana adopted its National Youth Policy in October 2016. The policy focuses on five strategic areas namely: 1) improve the social, emotional and cultural skills of young people; 2) produce productive and enterprising youth workforce; 3) develop quality education; and market oriented skills; 4) encourage leadership, participation and representation and 5) promote good health, security and

safety. A number of capacity development initiatives have been implemented for youth to actively participate in the workforce (SDG Target 8.5, 8.6 and 8.b).

In its thrust to leave no one behind, Guyana has been implementing several initiatives. Among these initiatives are: 148 community development plans received grants through the Amerindian Development Fund, of which 95 are income generating – a total of G\$126,220,637. Importantly, a total of 1,662 (1,068 males and 594 females) employment opportunities were created. For indigenous youths in particular, the Hinterland Employment Youth Service (HEYS) is underway. HEYS is a business venture programme designed to assist hinterland youth to become young entrepreneurs. Over 2,000 business have been established within the categories of crops and livestock, entertainment, food and beverage, food processing, logging, manufacturing, retail and distribution, services and petrol-oil lubricants and over (SDG Target 8.5 and 8.6).

Another public youth-employment scheme is the “YouthBiz 592” launched in 2017 which provides entrepreneurship, work readiness and life skills training for self-employment to youth at risk, as well as financial grants to start-up a business and psycho-social support. The goal is for youth to be economically self-sustainable and meaningfully occupied, hence reducing the levels of youth involvement in criminal activities (SDG Target 8.5 and 8.6).

Additional youth-focused initiatives include: 1) ‘Be Your Own Boss’ entrepreneurship training programme; 2) Youth Leadership Training Programme; 3) a series of “Women Entrepreneurship Support” workshops were conducted for female small business owners; and 4) training by the Small Business Bureau (SBB) for persons with disabilities to create/support their own business (SDG Target 8.5 and 8.6). In order to stimulate job creation and entrepreneurship in a coordinated manner, the Ministry of Business, with support from a development partner, has begun to develop a Small and Medium Enterprise (SME) Policy to streamline business development and improve the business climate (SDG Target 8.5).

Notwithstanding the number of jobs that need to be created, Guyana is committed to ensuring that the quality of employment is sufficient to retain an adequate workforce. Specifically, decent work involves opportunities for employment that is *“productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organise and participate in the decisions that affect their lives*

and equality of opportunity and treatment for all women and men”²⁶. To this end, in 2017, Guyana has signed on to a Decent Work Country Programme covering the period 2017 to 2021, as it takes proactive steps and reform to ensure decent work in all its dimensions. As a part of implementing the Country Programme, Guyana will be considering legislative reforms to enshrine the principles of decent work.

In keeping with the principles of decent work and the national and international commitment to safeguarding the rights of children, Guyana completed and launched its Child Labour Policy in April of this year and the National Plan of Action for its implementation is currently in draft (SDG Target 8.7). In addition to eliminating child labour, safety in the work place is a critical component of decent work. A key action that has advanced in this regard is the revision of the more than 20 years old National Occupational Safety and Health Policy in 2016; which is underpinned by the Occupation Safety and Health Act. This is supported by the establishment of the National Occupational Safety and Health Council, designed to oversee the action plan for the implementation of the policy upon its completion. The revisions to the policy take into account evolving technology which must be incorporated in a manner that ensures the safety of workers.

Over the review period, there has been a reduction in non-fatal occupational injuries from 516 in 2015 to 444 in 2018, however when disaggregated female injuries are increasing, moving from 59 to 80 for the same time periods. Fatal occupational injuries averaged approximately 21 per year, while only one female injury was recorded over the period (SDG Target 8.8). Essential initiatives to increase compliance and raise awareness on safety in the workplace have included training, routine safety inspections, investigations of accidents, promotion of workplace safety and health committees, and stakeholder sensitisations, among others.

Challenges, Emerging Issues and Addressing the Way Forward

As Guyana continues to actively support private sector development as the engine of growth, it is acknowledged that the shift to becoming competitive, green and social enterprises cannot effectively happen without a supportive legal, policy and institutional environment. Critical to the legal framework, the Occupation Safety and Health Act of 1997 needs to reflect contemporary circumstances and challenges, especially in the context of decent work and the arrival of the oil and gas industry. Efforts are underway to update this

critical piece of legislation while some regulations have been updated and one is currently being developed for the oil and gas industry.

With regard to the policy framework, the lack of an industrial development policy is a major policy gap. However, Guyana plans to undertake a review of current and planned industrial estates – established to support the manufacturing sector – as a pre-preparatory action towards establishing an industrial development policy. Towards the greening of industry and improving resource efficiency, policy initiatives being considered are the formulation of a national industrial energy efficiency policy and implementation programme, and preparation of environmental management plans.

With the onset of the oil and gas industry, Guyana is cognisant of the challenges of the resource curse and Dutch Disease²⁷ which require legal, policy and institutional responses. The former suggests that natural resource-rich countries experience less economic growth, poor democracies and poor development outcomes. To pre-empt these risks, a Green Paper was prepared at the request of HE to be laid in the national Assembly to foster national dialogue on the issue of the establishment of a SWF. Following series of capacity building exercises within key institutions – Ministry of Finance and Ministry of Natural Resources, consultations with civil society and private sector and support from major international development partners, a robust sovereign wealth fund legislation was developed and passed in the national assembly and assented to in January 2018.

The Act provides for the establishment of the Natural Resource Fund to manage natural resource wealth for the present and future benefit of the people. It embodies a transparent set of rules and reporting mechanisms to manage the flow of future, sizeable, resource revenues such that it minimises the detrimental impacts to the macro-fiscal stability of the economy. Work has already begun on the implementation of this legislation to ensure readiness for first oil anticipated in early 2020.

Recognising the importance of sufficient and robust policy and legal frameworks, it is just as important to pursue data to support decision-making and policy development. Data is lacking in the area of wages and tourism. Disaggregated wage data is required to effectively analyse the differences in pay between men and women as well as differences between work performed and salary received – all key elements

26 <https://www.ilo.org/global/topics/decent-work/lang--en/index.htm>

27 The Dutch Disease recounts the experience of the Netherlands whereby excessive reliance on gas production and its associated revenues led to currency appreciation followed by a loss of competitiveness, a shrinking non-gas economy and ultimately, a recession.

of decent work. For the tourism, this industry is yet to be incorporated in the national accounts, hampering the ability to effectively evaluate interventions in the sector and to plan for its development. The Decent Work Country Programme and the Tourism Satellite Accounting initiative being undertaken by Guyana are anticipated to address both of these issues.

While Guyana is prudent in undertaking to update and develop the relevant policies, frameworks and programmes to sustain economic growth, improve productivity and resilience, and promote decent work opportunities, capacity constraints of public institutions can be detrimental to the country's efforts. Financing and human capital development are required to provide for the relevant public programmes including extension services, training programmes, occupational safety and health awareness and investigations, and monitoring and evaluation, among others. The capacity of public institutions need to be urgently upgraded to effectively implement the required frameworks to support and sustain growth and provide decent work opportunities for all.

Lessons Learned

As Guyana has been implementing various initiatives to achieve the Targets of SDG 8, key takeaways have been: 1) the need for strong policy and legal environments; 2) robust data systems; 3) effective coordination and collaboration and; 4) strong institutions. In the case of strong policy and legal environments, it is clear that these are required to establish a rules-based framework to guide the regulation of and interventions in the various sectors such that positive outcomes may be achieved.

Furthermore, strengthening public institutions is required to effectively enforce the various policies and legislation as well as to deliver the requisite programmes such as skills and entrepreneurial training, data gathering and analysis, and occupational safety and health inspections. As development and growth is accelerated and sustained, institutional capacities must improve significantly, and quickly, if Guyana is to be prepared to benefit and effectively manage economic transformation.

Evidenced throughout this Review, robust statistical systems are also required in order to produce quality data to be used to inform policy and decision-making. Good data is required to appropriately assess the state of the economy and its various components, including employment, such that policies to promote growth and employment can be effectively developed. Disaggregated data is also paramount as it allows for programmes to be targetted to the appropriate groups such as children and migrants.

Given the societal impacts of legislation and policies, collaboration is necessary, not only with all stakeholders. Specifically, the regulatory work for occupational safety and health will require support from employees, employers, unions, enforcement officials and the general public.

Table 11 - Select Indicators for Economic Growth and Decent Work, Ministry of Finance, Ministry of Social Protection, Ministry of Business

Target	Indicator	2015	2016	2017	2018
8.1	Annual growth rate of real GDP per capita (non-oil) (percent)	3.1	3.4	2.1	4.1
8.8	Number of fatal occupational injuries, male	457	408	375	364
8.8	Number of fatal occupational injuries, female	59	44	52	80
8.8	Number of collective labour agreements signed between employers and employees' representatives/unions	11	10	10	15
8.9	Tourism share of total GDP (percent)	3.3	2.6	2.6	4.3



SUSTAINABLE DEVELOPMENT GOAL 9:

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALISATION AND FOSTER INNOVATION

Context and Key Achievements

Guyana has historically been known as the land of many waters and it is increasingly more evident that it is also a land of opportunity. As the economy is poised to evolve from primary production and micro-industry to value-added production, the promotion of sustainable practices and environmentally sound technologies is timely. Already, research, development and innovation have resulted in the growth of non-traditional products such as sundried tomatoes, cereal and a nutritional beverage derived from purple potato. However, the acceleration of diversification, integration and growth, as well as the development of nearly all sectors, is dependent on adequate, resilient infrastructure, which is severely lacking in Guyana.

Advancements in the infrastructure sector, in particular, are partly led by the National Land Transport Strategy and Action Plan (2016-2026), which takes Agenda 2030 into consideration. The Plan aims to contribute to the development of an efficient, effective and sustainable land transport network within and between coastal and hinterland communities that facilitates the country's socio-economic development and its transition into a green state. For the capital city, Georgetown, a sustainable urban transport study has been providing specific recommendations and options to allocate road space more efficiently among users, providing for bicycle lanes, sidewalks and overhead crossings in critical areas, and to increase the use of cleaner and more sustainable transportation modes, such as, public transportation and non-motorised modes (SDG Target 9.b).

Industrial and business development, on the other hand, was previously guided by the National Competitiveness Strategy (2006), which is anticipated to be succeeded by a set of policies namely - a National Sustainable Investment Strategy, a National Value Added Export Strategy and a Doing Business Action Plan. Given the aforementioned, a consolidated effort to accelerate the development of these key policies will be made, while also recognising the need for an overarching policy directive for the various infrastructure sub-sectors (SDG Target 9.b).

Over the past three years, government allocations for infrastructural development has increased from G\$31.6 billion, in 2015, to G\$35 billion²⁸, in 2018. The average travel time on the 454 kilometre unpaved, gravel corridor which connects the hinterland (Lethem) and coast (Linden-Georgetown), has reduced from approximately 18 hours to 12 hours (SDG Target 9.1), over the same period. This highway is the main means of getting resources to the rural hinterland from the coast. Last reported in 2011, road density, the ratio of the length of the total road network to the country's land area, in Guyana (0.024), is far lower than the Latin America and Caribbean regional average (0.462)²⁹, which in turn, has implications for access, transport costs and overall economic competitiveness (SDG Target 9.1). According to the Global Competitiveness Index, out of 140 economies, Guyana ranks 104th in terms of road infrastructure, 87th in port infrastructure, and 93rd in air transport infrastructure. Additionally, telecommunications, which also supports industry and growth, is characterised by an internet penetration of about 36 percent, in 2017, up from about 30 percent in 2011³⁰. Mobile cellular subscriptions have also increased from 70.6 per 100 persons, in 2015, to 82.7, in 2018³¹. These statistics reinforce the immediate need for infrastructural development in Guyana to address a long existing infrastructure gap (SDG Target 9.c).

Expenditure in infrastructure over the last few years is linked mainly to: (i) the completion of the upgrade a major highway connecting the Regions 2, 3, 4 and 7 on the western coast of Guyana; (ii) the commencement of upgrading of the highway providing connections between Regions 4, 5, 6 and Suriname, and; (iii) the upgrading of the main international airport allowing added aircraft and passenger traffic. Additionally, the current Demerara Harbour Bridge provides connections between Regions 2, 3, 4 and 7, and continues to benefit from frequent maintenance until new infrastructure is in place. To this end, the design for a new fixed high-level four lane Demerara River Bridge spanning just over 2 kilometres has been completed. In the area of road safety, in 2018, the

28 Details on allocations available in the National Budget Speech 2018, November 2017, Ministry of Finance. Available at https://finance.gov.gy/wp-content/uploads/2017/11/Budget-Speech-2018_final-1.pdf

29 See <https://www.doe.gov.gy/publisheddocument/5cd2cbbae5569929a69b35b6>

30 See https://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2018/Individuals_Internet_2000-2016%20Jan2018.xls

31 See https://data.worldbank.org/indicator/IT.CEL.SETS.P2?locations=GY&name_desc=false

country installed its first overhead walkways over the busy East Bank Demerara Highway.

Hinterland connectivity has slowly been improving over the years, though not at a rate that is sufficiently catalytic. Since 2015, over 30 additional trails have been upgraded to secondary roads and central ring roads have been constructed in some hinterland capital towns. Most importantly, having completed numerous studies several years prior, Guyana has secured initial financing with development partners to commence a first phase of the upgrading of the Linden-Lethem highway, which also provides connections between Regions 4, 8, 9, 10 and Brazil. Initiatives such as these are critical to providing affordable and equitable access for the thousands who live along this corridor, as well as access to the plethora of resources that will drive industrial development.

The manufacturing sector is dominated by rice and sugar manufacturing and also includes small and medium-sized operations, which account for the majority of the approximately 770 registered manufacturing establishments. In our quest to greater diversification and resilience, value-added production has been prioritised for significant expansion. Since 2015, Guyana developed new industrial estates across the country supported by incubator services to ensure the viability of new ventures. Additionally, the corporation tax rate has been reduced from 30 percent to 27.5 percent in 2017, in an effort to stimulate activity in the sector. Further, the public and private sector have demonstrated the value of partnerships having adopted a collaborative approach to catalysing growth in manufacturing through joint technical cooperation focusing on an agenda of select and critical issues identified by the private sector. Government and the Guyana Manufacturing and Services Association (GMSA) sit together in an Inter-Ministerial Roundtable established with a new sector-focused approach and driven by the priorities identified by the private sector. The joint government/GMSA technical working group supports the effectiveness of this partnership. Among the critical issues identified by the private sector are quality standards, packaging and labelling, financing, tax administration, technology, market access, and transportation and energy costs.

Notwithstanding Guyana's need to rapidly industrialise, small business has been and will continue to be a key component of economic activity. There are over nine thousand small businesses registered with the Small Business Bureau of Guyana. Through a budget allocation the Bureau provides entrepreneurial training, and some grant funding, as well as facilitates access to finance. In 2015, small-scale industries accessed over G\$121 million and, in 2018, over G\$317 million (SDG Target 9.3). Additionally, publicly provided

entrepreneurship training programmes are delivered across the country, already having benefitted thousands of persons. Some of these programmes target key vulnerable groups such as women and youth. At this time, there is need for tracer studies and evaluations to empirically assess the effectiveness of these programmes on the lives of beneficiaries. Undertaking this type of follow-up is expected to allow programmes to be reconfigured to improve efficiency, where necessary.

In the acceleration of industrial and small business development, it has long been recognised that technology plays a catalytic role. Knowledge management, information and communications are seen as essential in formulating and implementing green evidence-based policy – a principle echoed by Vision 2040. It allows for high productivity and production, standardisation and improved quality. Guyana's mechanisation has been subdued owing to the relatively higher associated sunk costs of technology acquisition compared to the relatively low cost of labour. This has translated to significant technological gaps across the country and the underdeveloped of the ICT sector. Due to historically legislative constraints, landline and international data and voice services remain under the monopoly control of a single corporation for nearly 30 years. The lack of competition is reflected in the pricing of the related services and restrained the pace of modernisation of the telecommunications sector.

Over the last few years, the authorities have executed a liberalisation agreement with the mentioned monopoly holder, established a modern legal framework for the regulation of the industry, introduced 4G cellular services, and begun the introduction of eGovernment services. Further, community-based ICT hubs have been established, since 2016, at over 170 locations, and another 200 are planned for the period 2019 to 2022, in hinterland, poor and remote communities across Guyana, allowing for increased access to ICT services (SDG Target 9.c). Further, the authorities have sought to stimulate activity in the sector by providing training and engaging the general public, including youth, in tech events such as 'Hackathons', 'Basic Literacy in Coding', 'Code Camps' and 'Code Sprints'. A key achievement for the sector was the roll out of the 'Guyanese Girls Code' programme, aiming to promote female participation in this high-tech industry. An indication of the high priority placed on the information and communication technology sector is reflected in the budgetary estimate for the Ministry of Public Telecommunications increasing from a revised estimate of G\$1.9 billion, in 2017, to G\$4.4 billion, in 2018.

In addition to the aforementioned 'Hackathons' and 'Code Sprints' which also serve to stimulate innovation, a Youth Innovation Fund was established, in 2017, to provide seed

financing to young people undertaking new and original ventures. Additionally, the Institute for Applied Science and Technology, the National Agricultural Research and Extension Institute and the Guyana Rice Development Board are some of the institutions that have mandates for research and development. Outputs have included new strains of rice, tomato ketchup and technology transfer. Notwithstanding, research and development is well below the scale required to accelerate diversification of the economy.

Challenges, Emerging Issues and Addressing the Way Forward

Given the inter-reliance of industry, infrastructure, technology and innovation, it is imperative to recognise the cross-cutting issues that hinder economic development. On the highest level, development of any sector must be underpinned by sound and informed policy. Given the ripple effects of weak performance in STEM, significant investment is needed in this area, without which there will be no sustainable development, industrial or otherwise. Further, the emerging challenge of a petroleum industry that threatens to absorb national engineering capacity at a rate faster than Guyana can produce and at wage rates that will be at best difficult to compete.

The lack of an umbrella infrastructure sector strategy stymies efficiency and coordination within the sector and between others. Guyana has begun the process to put in place an infrastructure sector development plan which will cover investments in urban and suburban transport development, hinterland roads and bridges, sea defences, stelling, ports, energy and urban administration outside of the capital city.

Potential economic synergies with Guyana's neighbours are unexploited in part because the existing infrastructure network does not adequately connect these economies. The Liner Shipping Connectivity Index, which measures maritime connectivity, ranks Guyana below all other Caribbean countries. Private participation in infrastructure is scant as a result of institutional deficiencies in strategic planning and project management, a lack of adequate regulation, and a nascent public-private partnership framework. Public financing for infrastructural maintenance and development is inadequate. Similarly, the cost of maintenance and upgrading rural aerodromes is also significantly high.

Large-scale infrastructure investments have often required financing arrangements whereby an investment may be split in phases or over various projects. This usually occurs due to the lack of the local and regional contractor and consultant capacity to undertake sizeable projects. Phased

implementation, though it may promote participation of smaller local and regional contractors and consultants, reduces the benefits of economies of scale. Generally, access to affordable finance for large-scale public investments, in their entirety, has been difficult to secure. An example of this is the phased upgrade of the Linden-Lethem corridor which is expected to reduce travel time by about half. The first phase of 125 (of 454) kilometres will be undertaken with support of development partners while the second phase will be executed through a public private partnership facility. While the country has explored the financing modality of public private partnerships and has published a policy document on this subject, a legal framework for this is not yet in place.

In addition to the complexities of sourcing development financing, public sector capacity to execute large scale projects is also limited. The public sector has, historically, struggled to attract and retain suitable qualified professionals and currently faces human resource gaps for infrastructure, particularly engineers, and professionals in bridge construction, geotechnical analysis, structural analysis, procurement and planning. Furthermore, these human capital constraints create additional bottlenecks in procurement and other systemic issues. The national infrastructure development plan, when completed, is expected to address this issue with intensified institutional strengthening and capacity building interventions, among others.

The issues facing infrastructure and industry are challenged by the support services that enable it to flourish. Transport and energy costs are inputs which fuel industrial and small business development; unfortunately, Guyana suffers from high-cost transport and energy services which erode the competitiveness of its products. Guyana's Nationally Determined Contributions under the UNFCCC, notes the country's commitment to moving towards 100 percent renewable energy which, in the long run, is expected to result in more affordable energy costs. Additionally, there exists scarcity of research, innovation and development. Substantial educational improvements and reforms are required to generate the quality of human capital required to drive innovation and research and transform the economy.

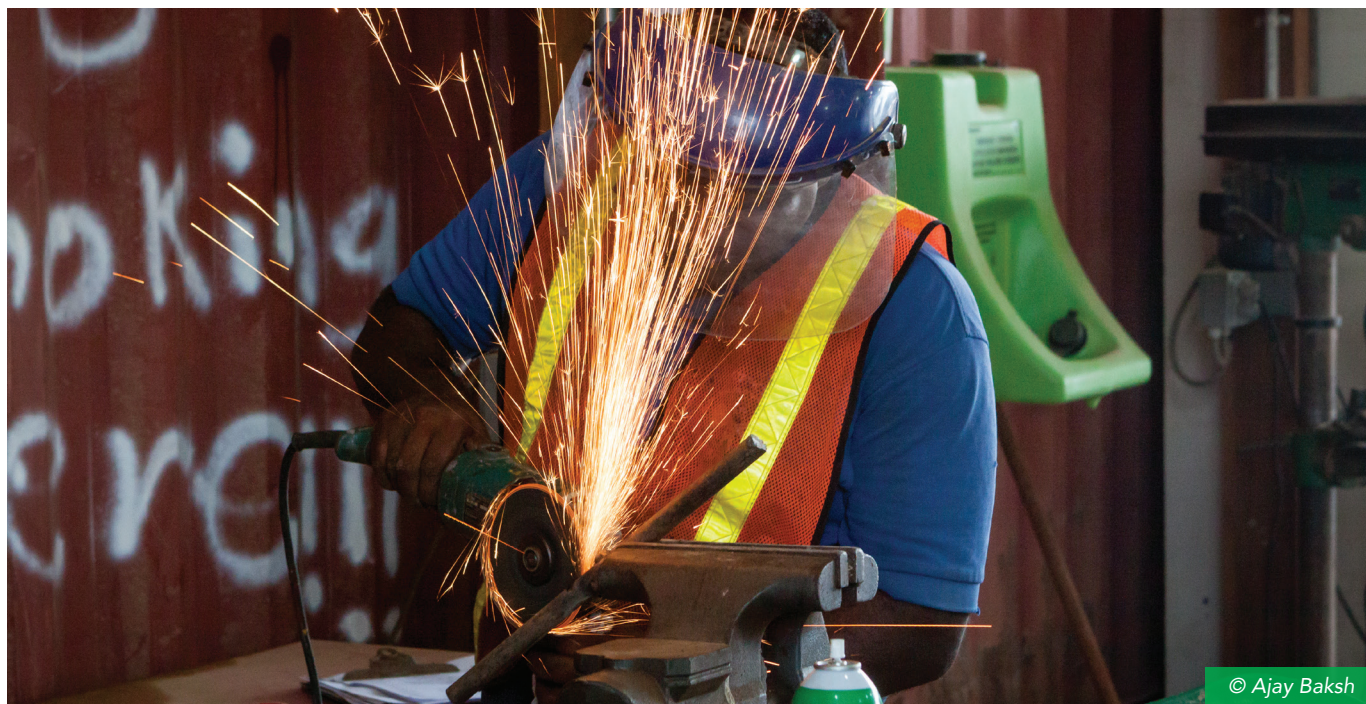
Apart from the need for an inclusive infrastructure sector plan, the information communication technology sector stands to benefit from a sector policy as well. This policy should address the challenges of adequate, affordable and reliable ICT services across the country. Aside from public services, the expansion of private services, however, hinges on the liberalisation of the telecommunications sector. While that process is ongoing, the authorities are developing plans for the establishment of an ICT fund and an ICT park. Additionally,

education and training will continue to feature prominently in public programmes, with animation and curriculum design receiving added attention. Notably, the Centre of Excellence in Information Technology (CEIT) was formally launched in the second quarter of 2019, with the aim of being the nation's leading provider of "research informed ICT education and projects for the public sector"³². These measures are intended to stimulate educational interest and private sector ICT-activities.

Lessons Learned

The closer examination of individual sectors such as industry, infrastructure and ICT highlights the inter-sectoral dependence, individually and nationally. The role of education in generating a stream of people to populate and sustain growth in this sector will determine the level of national capacity that is present to deal with required needs and complement the international expertise required. Collaboration is instrumental in reducing redundancies and efficiently allocating resources by allowing each authority to plan more effectively, thereby allowing for priority setting and the dedication of limited resources to undertaking only the most catalytic investments first.

Capacity building is a requirement if Guyana, or any economy, is to undertake large-scale complex initiatives that will allow the country to benefit from economies of scale. Human resource assessments are required to identify the key and critical gaps for the public sector to effectively address the capacity constraints and sustainably manage employment cost growth. Specialist capacities have been identified as priority in addition to professionals skilled in planning and monitoring and evaluation. Data system strengthening continues to feature as a key lesson across all sectors. Strong data systems will allow for the effective assessment and evaluation of public programmes, including those relating to small business and entrepreneurship training, such that they may be effectively calibrated to deliver the best possible outcomes.



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³² See details from the National Data Management Authority. Available at <https://ndma.gov.gy/ceit/>



SUSTAINABLE DEVELOPMENT GOAL 10:

REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES

Context and Key Achievements

Inequalities perpetuate poverty and generally result in dissatisfactory outcomes for society. Guyana has been making improvements in the area of inclusion and leaving no one behind. The Inequality-Adjusted Human Development Index (IHDI) for the country has improved slightly from 0.529, in 2015, to 0.532 in 2017. The IHDI, designed by the United Nations, *“combines a country’s average achievements in health, education and income with how those achievements are distributed among the country’s population by “discounting” each dimension’s average value according to its level of inequality”*. Important to note is that, in 2017, Guyana’s IHDI trails that of the Latin America and Caribbean region which was recorded at 0.593.

As mentioned previously, key to the story of inequality in Guyana is, understanding the dichotomy between the hinterland and the coast. Poor access between these regions, within the country, inherently creates disparities in access to services and opportunities. Notwithstanding, Guyana continues to prioritise attention on and inclusion of the country’s indigenous population through a suite of initiatives including its Amerindian Development Fund programme and many other targetted programmes, across the hinterland, in various sectors such as agriculture, health, infrastructure, education and industry. Importantly, stakeholder consultations were held in 2018 across the country, including in the hinterland regions, to inform the elaboration of the Green State Development Strategy – Vision 2040 (SDG Targets 10.2, 10.3 and 10.4).

The coordination mechanism for the development of Vision 2040 also provided for active participation of a key segment of Guyana’s population – its youth. Youth participation and development is regarded as crucial to ensuring the future success of Guyana and this fact is enshrined in the principles of the National Youth Policy articulated in 2015. Participation of this group and the indigenous population, among others, was also crucial to the formulation of Vision 2040 (SDG Targets 10.2, 10.3 and 10.4).

The Constitution of Guyana provides for various institutions to promote citizen participation and tolerance, especially given the country’s diverse population. The supreme law of the land establishes the following entities which have the mandate to promote the rights of all peoples of Guyana and facilitate their inclusion at the national level: the National Commission on Disability, the Rights of the Child Commission, the Indigenous

Peoples’ Commission, the Women and Gender Equality Commission and Ethnic Relations Commission.

Additionally, the Strategic Plan for Promoting and Enhancing Social Cohesion in Guyana (2017-2021), developed in 2017, also provides strategies to incorporate the aged, homeless, differently abled, drug and alcohol abusers, in and out of school and unemployed youth, and other vulnerable groups and individuals into national life. Additional policies and institutions that facilitate inclusion include: the Special Education Needs Policy, the National Gender Equality and Social Inclusion Policy and the Gender Affairs Bureau, among others (SDG Target 10.2, 10.3, and 10.4).

Noteworthy, the National Commission on Disabilities conducted a national household survey of persons with disabilities which provided pertinent information for a nation-wide sensitisation about disability issues; all aimed facilitating the provision of improved services to persons with disabilities (PWDs). Additionally, the Commission has implemented initiatives including training for PWDs to create and support their own business; established a referral system for financial and other support; and held policy discussions to include PWDs in the development process.

To further ensure equality, sustained growth and livelihood of lower-income earners, the public sector continues to steadily increase its overall wages, including the public sector minimum wage. Between 2015 and 2018, the public sector minimum wage has increased by an average of 10.8 percent per annum while the private sector minimum wage increased by an average of 12.4 percent between 2016 and 2017 (SDG Target 8.1 and 8.4). Further, national Old-Age Pension (OAP) – provided as an unconditional transfer to those over the age of 65 – has also increased, on average, by 12.5 percent between 2015 and 2018. These fiscal measures serve to ensure that income gaps are managed as the country develops and that all people, especially low-income earners, have the means to benefit from a “Good Life” (SDG Target 8.4).

Guyana has also placed significant emphasis on the prudent management of its financial sector, recognising the importance of accessing credit as well as safe wealth accumulation, especially for the poor. The Bank of Guyana has been exercising robust monitoring of the financial institutions in the country. Across the banking sector, the capital adequacy ratio has increased from 23.9 percent to

28.7 percent between 2015 and 2018; non-performing loans only marginally increased from 11.5 percent to 11.9 while the liquidity ratio increased from 28.8 percent to 30.2 percent. According to the Third Basel Accord, banks should maintain a minimum of 10.5 percent capital adequacy ratio, and hold sufficient high-quality liquid assets to cover its total net cash outflows over 30 days (SDG Target 8.5).

In addition to the banking industry facilitating deposits and credit access, it is the medium through which remittances are received and sent. As many Guyanese live abroad, remittances have become important to families to complement their household income. In 2017, the average transaction cost as a percentage of the transaction value for remittances under G\$100,000 was approximately 14.8 percent, while the cost for those above G\$100,000 was about 4 percent. This is not yet within the parameters of achieving the 2030 goal of reducing transaction costs for remittances to below 3 percent (SDG Target 10.c).

International transactions not only affect households in the form of remittances, they also affect the state's ability to implement programmes through preferential agreements and concessional financing. Guyana has continually maintained the importance of concessional financing to its development programme notwithstanding its graduation to an upper middle-income country. Due to the limited tax base, growth in domestic resources, in the immediate future will be insufficient to implement catalytic programmes to address the country's immediate development needs. As such, the aforementioned arrangements continue to be necessitated.

The Caribbean Single Market and Economy (CSME) is a regional preferential mechanism which is focussed on deepening economic integration, widening membership and the progressive insertion of the Caribbean into the global trading and economic system. Qualified CARICOM nationals who have the requisite skills certificate are able to qualify for job opportunities in any CARICOM country without requiring employer sponsorship or a work permit. This free movement of skilled persons allows for CARICOM nationals, including Guyanese, to access opportunities, around the member states (SDG Targets 10.3 and 10.7).

Challenges, Emerging Issues and Addressing the Way Forward

The development of the GSDS holds vast opportunities to reduce inequalities, improve employment, improve health and education outcomes, enhance competitiveness of the economy and build the pathway to a sustainable future for Guyana. However, this must be linked to complementary

and targeted strategies. As such, implementation of the Strategic Plan for Promoting and Enhancing Social Cohesion will include extensive capacity development for leaders of indigenous villages, national religious organisations, private sector organisations, labour unions, NGOs, women's groups, youth groups, sports groups, and other service organisations. Training is intended to instill the skills necessary for leadership and promotion of social cohesion, and job training for community members, including at risk groups. In addition, training and other support will be provided to address issues of suicide, child abuse, domestic violence, sexual harassment, alcohol and drug abuse, school drop-outs, and other social issues.

Notwithstanding the aforementioned plans, several systemic bottlenecks restrain the country's ability to ensure equality, the most significant of which is the lack of an efficient transport network across the country. Goods and services are disproportionately provided across the country, in favour of the easier-to-access coastal areas. For example, while it may take a child a short car ride to get to school in Georgetown, in the hinterland a child may need to walk for several miles or take a boat to get to school. It is recognised that the provision of this critical infrastructure is dependent on available financing and capacity, which Guyana is continually pursuing. Financing for large investment projects has traditionally been dependent on the availability of concessional financing, given the limitations of Guyana's fiscal space.

Fiscal space has been a constraint, not just in general, but specifically in expanding income-generating skills training programmes, social services provision and social protection systems – these initiatives are critical to sustaining income growth and equality for the poor. Having been in an IMF Economic Recovery Programme through the 1990s, Guyana is conscious of the need to maintain stable macro-fiscal fundamentals and ensure sustainability of expenditure. Additional spending, social protection transfers and wage increases need to be managed in the context of sustainability and restraining inflation.

While opportunities continue to be leveraged within Guyana and abroad, noting the benefits of the CSME, geopolitical tensions pose a challenge to the country. Specifically, the situation in Venezuela, creates a strain for Guyana's limited resources to properly manage the flow of migrants in and out of the country's porous borders and adequately provide basic services for those in need. Guyana must urgently develop a migration policy to suit the needs of modern-day challenges and realities. This becomes increasingly important in light of the anticipated inflow of skills and investment accompanying the development of the oil and gas industry.

Lessons Learned

Connectivity remains at the forefront of interventions required to catalyse improvements to all facets of Guyanese life. This is highly evident in the disparities in equality created by the lack of sufficient infrastructure across the country. To facilitate growth, investments in quality infrastructure, along with education, must be among the priorities for Guyana.

Notwithstanding the need to accelerate investments, the experience of Guyana in the late 1980s and early 1990s, when inflation exceeded 100 percent in a particular year, has ingrained the impetus to effectively manage the economy. The provision of sufficient social protection systems and targeted income and growth policies must be balanced by a thorough analysis of the impact potential policies may have on the economy. Guyana remains committed to responsible and sustainable development, which must include managed expansion so as to minimise inflationary effects and overheating of the economy.

Critical to effective investment and economic management is the existence of strong public institutions. Guyana's experience with migration, particularly that originating from conflict areas, highlights institutional shortcomings and the need for definitive policy guidance. Analytic capacities have to be built in order to effectively plan for situations such as geopolitical tensions alongside the onset of oil – this includes factoring in provisions for migration including attracting necessary skilled labour in national policies.

Table 12 - Select Indicators for Equality, Ministry of Finance, Ministry of Social Protection and Bank of Guyana

Target	Indicator	2015	2016	2017	2018
10.4	Change in public sector minimum wage (percent)	17.1	10.0	9.1	7.0
10.4	Change in national minimum wage (percent)	-	13.0	11.8	-
10.4	Change in Old Age Pension (percent)	36.0	7.0	4.4	2.6
10.5	Capital Adequacy Ratio (percent)	23.9	25.4	27.1	28.7
10.5	Non-Performing Loans (percent)	11.5	12.9	12.2	11.9



SUSTAINABLE DEVELOPMENT GOAL 11:

MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

Context and Key Achievements

Guyana is populated by approximately 745,000 persons³³, who are unevenly distributed across the country, with approximately 90 percent of its residents living on the coast and the remaining 10 percent inhabit the hinterland. The low coastal plain is one of Guyana's geographical regions and is constituted by five coastal administrative regions and is characterised by a 459 kilometre coastal strip that hosts the hub of Guyana's agricultural, infrastructural and communication activities. On the other hand, the highland region and interior savannahs are mainly constituted by the hinterland regions, and are home to the ecosystems, mining, forestry and other extractive activities.

Guyana is divided into three counties, Berbice, Demerara and Essequibo. The capital city, Georgetown, is located in Region 4, which has a population of approximately 311,000³⁴ and accounts for the largest share of Guyana's population. Over the period 2015 to 2018, 4 new towns were designated – in Bartica, Lethem, Mabaruma and Mahdia – with a view towards greater decentralisation and democratisation of municipal administration in the medium term. Nationally,

over 25 percent of the total population³⁵ resides in urban areas including the capital city Georgetown, and surrounding areas. Further, between 2015 and 2020, the annual rate of urbanisation is estimated to grow to 0.91 percent. The population distribution across these Regions can be seen in the table below.

A key prerequisite of sustainable development and achieving sustainable cities and communities is ensuring that strong planning architecture and operational frameworks are in place to guide national and regional development. The Green State Development Strategy: Vision 2040 has outlined Guyana's policy direction and vision into the long-term as has the various sector-specific plans such as the Health Vision 2020, Education Sector Plan, among others. The overarching policy and sector strategies guide national and regional planning, as well as programme implementation across the administrative regions. For example, health sector policy dictates the minimum essential services that each tier of health facility should provide; this forms a basis upon which the administrative regions plan health service delivery and request budgetary allocations (SDG Target 11.a).

Table 13 - Regional Distribution of Guyana's Population, 2012 Population and Housing Census, Bureau of Statistics, 2016

Administrative Region	Total Population
Region 1 – Barima - Waini	27,643
Region 2 – Pomeroon-Supenaam	46,810
Region 3 – Essequibo Islands-West Demerara	107,785
Region 4 – Demerara-Mahaica	311,563
Region 5 – Mahaica-Berbice	49,820
Region 6 – East Berbice – Corentyne	109,652
Region 7 – Cuyuni-Mazaruni	18,375
Region 8 – Potaro-Siparuni	11,077
Region 9 – Upper Takutu-Upper Essequibo	24,238
Region 10 – Upper Demerara-Upper Berbice	39,992
TOTAL	746,955

33 The 2012 Population and Housing Census indicates Guyana's total population at the time was 746,955. See details of distribution by region, age and gender at <https://statisticsguyana.gov.gy/census.html>

34 2012 Population and Housing Census, Bureau of Statistics

35 See Guyana's Economic Indicators on Moody's Analytics at <https://www.economy.com/guyana/indicators>

Furthermore, Guyana has, in 2016, introduced Plans of Action for Regional Development (PARD) and Plans of Action of Municipal Development (PAMD) – strategic plans to guide the development pathway and planning for each administrative region and municipality. These plans utilise existing national and sectoral strategies as key inputs in their elaboration along with extensive consultations. Within PARDs and PAMDs, is the elaboration of the strategic vision and development trajectory specific to each region's unique competitive advantage that sets a clear path for accelerated socio-economic development by increasing job opportunities, supporting micro, small and medium enterprises and providing local economic development related services. To date, PARDs for Regions 9 and 10 have been substantially completed while the intention is to have PARDs for all regions. The implementation of Region 10's PARD is envisaged to directly benefit almost 40,000 persons while Region 9's is intended to benefit approximately 25,000 persons and fifty-seven (57) Amerindian communities (SDG Targets 11.3 and 11.a).

In collaboration with the regional administrations, the Central Housing and Planning Authority (CHPA) undertakes planning for settlements through town planning schemes for cities and towns; regional planning schemes for areas that are not cities or towns; and supplementary schemes for smaller areas covered by a regional scheme. To this end, the CHPA has completed a draft National Housing Policy, currently under review.

The CHPA also interacts with Regional Democratic Councils, local authorities, and the Guyana Lands and Surveys Commission, among other entities. The CHPA also undertakes interventions that promote inclusivity and target vulnerable groups such as low and middle income households, indigenous persons, single parent households and persons living with disabilities, among others. Initiatives undertaken from 2015 to date have focused on:

- Providing adequate housing and urban accessibility through the upgrading of existing housing areas, the provision of core houses and disbursements of home improvement subsidies;
- Sustainable hinterland housing to replace dilapidated structures, roofs and add rain water harvesting for homes;
- Informal settlements regularisation where informal settlements are upgraded, persons are sold land at a minimal cost and granted an allocation letter with the intent of receiving security of tenure in the form of a title (freehold ownership);
- Development of new housing areas which involves the infrastructure development to yield serviced lots for allocation; and
- Construction of housing units targeting low and moderate income households. Housing units that were constructed are duplexes and single flat or elevated 2-bedroom units. Selected homes are intended to be outfitted with facilities to accommodate persons with disabilities.

As a result of these initiatives, over the period 2015 to 2018 almost 5,200 serviced lots were allocated, 370 housing units, and over 500 housing upgrade subsidies distributed. Regularisation of informal settlers is an ongoing process, and of the total, 1.6 percent were regularised in 2015, though this declined to 0.9 percent in 2018. Altogether, these interventions have accounted for the proportion applicants accessing adequate housing peaking at 4.6 percent in 2016, however this declined to 1.6 percent in 2018 (SDG Target 11.1).

While affordable housing continues to be a priority for Guyana, the development of housing and settlements requires a planning process that is also inclusive and participatory in order to ensure the sustainability of investment and quality of life. CHPA has developed a community engagement model towards achieving sustainable and cohesive communities which include (SDG Targets 11.1 and 11.3):

- Community meetings were held with the aim of raising awareness and garnering feedback about the CHPA's planned programmes and implications;
- Training was provided to 114 community leaders encouraging the formation of community management groups which would promote household buy-in and community sustainability;
- Support was provided to community groups for the implementation of eight community demonstration projects. These projects promote communities taking responsibility for identifying, articulating initiatives to effect development in their area, and taking action to expand on what was achieved and share these lessons with other communities;
- Engagements were also extended to local democratic organs (LDOs) as they have a legal responsibility for providing public services at the community level such as waste collection, enforcement of regulations and infrastructure maintenance. To this end, consultations were held with about one third of LDOs to garner their support towards implementing community development initiatives and ensuring continued maintenance and sustainability;
- Workshop sessions held with 234 homeowners from Regions 1, 4 and 9, to help facilitate community empowerment to take action to address issues affecting their development; and

- Initiatives aimed at meeting the needs of vulnerable community groups such as: measuring female participation; promoting indigenous persons' participation; provision of sign language and interpreter services at meetings.

To support the resiliency of the settlements and communities, Guyana has rolled out a variety of climate resilience programmes – which will be discussed in detail in SDG 13. In sum, community-based disaster risk management systems are being implemented across the country which includes the development of multi-hazard preparedness and response plans. Similar plans were also developed for the municipalities. These plans were developed in conjunction with the conduct of training recognising the importance of initial reactions to life safety, in the event of a disaster. They are also grounded in the national Comprehensive Disaster Management Country Work Programme which is in line with the Sendai Framework for Disaster Risk Reduction (SDG Target 11.4 and 11.b). Guyana has accelerated the expansion of construction and maintenance of sea defence structures, with budgetary allocations increasing from G\$1.4 billion in 2015 to G\$2.4 billion in 2018 (SDG Target 11.5).

Another facet of resilience, in addition to disaster preparedness, includes ensuring sustainable transport systems. Efficient transport systems allow for safe and easy access to communities and also facilitate economic activity. In Guyana, public sector-run transport systems only exist for river crossings, by ferry. Public vehicular transportation is delivered mostly independently by private bus-owners and taxis. The bus network, in particular, is heavily relied upon though it continues to warrant concern for road safety. To expand safer transport systems, Guyana has re-examined the construction of its roads to ensure safer turns and resilience to weather events, and begun constructing roundabouts to improve the flow of traffic, installed sidewalks, overhead pedestrian walkways, widened speed bumps and rumble strips (SDG Target 11.2).

In order to address transport needs of the country, Guyana is developing a new infrastructure strategic plan. This multi-faceted plan covers urban and sub-urban transport development, Hinterland roads and bridges, sea defence, stelling and ports, aerodromes, energy and expansion of urban administration outside Georgetown. In addition, the National Road Safety Strategy 2013-2020 is guiding the implementation of public safety initiatives to reduce the incidence of road traffic accidents and improve passenger and pedestrian safety (SDG Target 11.2). These policies will serve, not only to improve economic activity, but to also raise the quality of life.

Equally critical to improving settlements is ensuring that human habitation leaves minimal environmental footprint; failure to effectively manage this will detract from the sustainability and safety of a community. For human settlements, this means paying special attention to the consumption and waste that humans generate which currently entails open dumping or burning, to a large extent. To this end, Guyana has undertaken to expand waste management services, research and development to generate new improved technologies and public education. These interventions are intended to generate more efficient technologies and promote more environmentally-friendly practices such that waste is reduced, reused and safely disposed. However, intensified efforts are required for Guyana to expand the current pilot and small-scale initiatives (SDG Target 11.6). These are further elaborated in the discussion on SDG 12. Notwithstanding, to promote the importance of the environment and its benefits, as well as, to cater for public demand, green public spaces have traditionally been a staple in housing development. The intention is that land is allocated, in every public housing scheme, for at least one green public space (SDG Target 11.7).

On a broader scale, Guyana has, for decades, recognised its environment and ecosystems – its natural capital – as the key feature of its national patrimony. Many initiatives are being employed to safeguard and sustainably manage Guyana's natural heritage. Mentioned throughout the report and in discussions on SDGs 13, 14 and 15, efforts include implementation of sustainable production practices across relevant sectors, the utilisation of a REDD+ mechanism and improving the institutional and regulatory frameworks, among others. Of note is the existence of a Protected Areas Commission which manages and safeguards the five legally protected areas over a total of 1.8 million hectares. Mountain biodiversity and ecosystems are also covered in existing protected areas (SDG Target 11.4).

Additionally, Guyana's cultural heritage is a defining element of its history and another prominent feature of the national patrimony. The country's history has bestowed a rich ethnic diversity that includes those of Amerindian, African, East Indian, Chinese, European and Portuguese, and a racially mixed population. Examination of Guyana's public holidays as well as non-holiday education and awareness days/weeks will reflect a national celebration of cultural diversity with a range that spans Indigenous Heritage Month, Emancipation, Diwali and Eid. Indigenous Heritage Month includes activities aimed at preserving and appreciating the various indigenous cultures by sharing traditions and hosting other cultural performances. Further, to coordinate, expand and improve cultural preservation activities, the Department of Culture has been continually receiving increasing budgetary allocations,

growing from G\$233 million in 2015, to G\$350 million in 2019 (SDG Target 11.4).

Challenges, Emerging Issues and Addressing the Way Forward

While Guyana aspires to ensure that every citizen is afforded the means to own their own residence, a long road remains to achieving this goal. As of the end of 2018, tens of thousands of persons remain on the applicants list for the national housing programme, awaiting allocation of a serviced house lot or an opportunity to purchase a constructed unit. An effective plan of action to address, in the short to medium term, the needs of those on the applicants list needs to be developed. Planning has generally leaned towards being project-based rather than on a spatial, strategic and medium-to-long term. It is anticipated that this should be alleviated with the finalisation of the draft National Housing Policy. Notwithstanding, in the interim, the CHPA, with support from the Ministry of Finance, developed a Housing Position Paper providing an analysis of the housing backlog and proposing multiple solutions to effectively address the housing needs of applicants, including the conduct of an evaluation, financing strategies, measures to improve affordability and partnerships, among others.

The Position Paper, once again, highlighted the multi-sectoral nature of delivering housing services and recognised the critical support required from other actors, such as the financial sector and private sector including construction companies and sanitation services providers, among others. A meaningful and sustainable multi-stakeholder approach is yet to be firmly established in pursuit of the various solutions to address the housing needs of Guyana. A lack of capacity has hamstrung the effective coordination of the national housing programme, discussed above. Additionally, it has constrained the pace of roll-out of regional and municipal planning vis-à-vis PARs and PAMs as well as the ability of LDOs to effectively maintain their communities. To this end, Guyana has undertaken to intensify institutional strengthening activities for the regional administrations and at the LDO level.

Capacity building has to be accelerated not only for effective planning but also to improve data systems across the board. This is particularly important for ensuring that sufficient data is generated to assess and evaluate the safety and sustainability of cities and other settlements. In Guyana's case, this means ensuring that data on water quality, waste generation and disposal, transport coverage and emissions and air quality, among others, is collected and reported adequately. Institutional strengthening and programme formulation and implementation must be evidence-based and results-focussed, and likely require additional funding.

Aside from addressing institutional challenges, additional resources will be required to shore up sea defences. This is paramount in light of the fact that the majority of the country's population live in communities on the narrow and low-lying coastal plain, which is susceptible to flooding. Increasingly unpredictable weather has also resulted in flooding in the hinterland. Currently, Guyana's sea defences require reinforcement and continued maintenance and rehabilitation which are relatively high-cost investments.

Lessons Learned

Within this goal, a significant amount of the 15 targets require surveys to be conducted to accurately gather and determine what has been achieved. The scale of support both human and financial that is required to undertake needed data collection and analysis in a country of under one million people, and a Bureau of Statistics that is under resourced, means that without external support Guyana does not have the in-house capacity to generate all the data needed to effectively track and monitor the SDGs.

Guyana continues to prioritise the strengthening of public institutions as a priority for effective public service delivery. As evidenced in the discussion on sustainable and resilient communities, institutional strengthening, particularly in the area of data systems, coordination and planning, is paramount to ensure that appropriate and comprehensive interventions are identified, implemented and sustained based on robust analysis and evidence. For example, the effective layout of sustainable communities within the 10 administrative regions is reliant on regional mapping and strong planning capacities, to ensure more equitable economic development across the country. Access to adequate housing and the quality of communities are key variables in improving the quality of life of Guyanese and keeping persons out of poverty, and, as such the design of the related programmes must be appropriately targeted.

To complement increasing capacities, over the coming years, is also affordable financing. Significant funding will continue to be demanded across all sectors, including resilient housing, sanitation and transport, given the scale and scope of development gaps that still exist in Guyana. As such, concessional financing will continue to be necessitated, as well as, the need for new and innovative instruments and partnerships. The nature of housing potentially lends itself to innovative public-private partnerships and other modalities of securing financing, the utilisation of which will also be critical to the sustainability of public programmes in this area.

Table 14 - Select Indicators for Water and Sanitation, Moody's Analytics Economic Indicators - Guyana

Indicator	Value
Urban population as percentage of total population (2017)	28.8%
Annual rate of urbanisation (2015-20 est.)	0.91%
Percentage of population with access to improved drinking water source	urban: 98.2% rural: 98.3% total: 98.3%
Percentage of population with access to improved sanitation facility	urban: 87.9% rural: 82% total: 83.7%
Percentage of population with access to electricity	82%



SUSTAINABLE DEVELOPMENT GOAL 12:

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

Context and Key Achievements

Guyana's ambition for its future has been clearly articulated in its GSDS and, at its core, it embodies the principle of transformation into a green economy. The Strategy's vision is *"An inclusive and prosperous Guyana that provides a good quality of life for all its citizens based on sound education and social protection, low-carbon and resilient development, providing new economic opportunities, justice and political empowerment."* This vision is aligned with the promotion of sustainable consumption and production (SCP). The Strategy explicitly calls for policies that support SCP, including increased resource efficiency, promotion of sustainable procurement, integrated waste management, and the use of economic instruments to internalise negative externalities. For Guyana, that means continuing, and scaling up, some of the existing work in this area, as well as developing new programmes. Sector-specific policies, strategies and plans that focus on SCP are in the areas value-added food production, manufacturing, tourism, the development of sustainable, green towns and infrastructure, among others. Even in the absence of a National SCP Action Plan, the GSDS comprehensively integrates SCP and its key elements.

Central to the GSDS are the sustainable management of Guyana's natural resources, and economic competitiveness and resilience to be achieved through green and inclusive economic diversification. To this end, the Strategy outlines recommendations for managing land, water, forest and precious metals, mineral and aggregate resources as well as biodiversity and ecosystem services. Recommendations include establishing geographic information systems, creating a national physical development plan, operationalising integrated water resources management, strengthening forest monitoring and updating mining laws, among others (SDG Target 12.2).

As highlighted within the GSDS, resource extraction must be guided by evidence-based methods, with improved technical and economic support to accomplish diversification and transformation plans. A key priority is to make mining standards more stringent and provide incentives for the adoption of modern and environmentally sound technology and more accurate prospecting. Sustainability in forestry and fishing must be driven by greater certification and improved access to markets. Guyana has commercialised a high-value cosmeceutical from non-traditional forest products; a luxury facial cleanser has been developed and is marketed nationally, regionally and further afield which utilises pods

from the crabwood tree. This type of product provides economic incentive for avoided logging and also promulgates techniques and approaches which are related to the leveraging of indigenous knowledge. Research and development in this area continues, with several cosmeceuticals derived from forest and high savannah botanicals about to be commercialised.

Some sector-specific policy and operational achievements towards improving resource-efficiency and sustainability include (SDG Targets 12.2 and 12.5):

- the completion of the National Waste Management Strategy (2013-2024) which sets the guiding principles to improve Guyana's solid waste management practices, aiming to reduce litter, waste and illegal dumping and improve resource recovery.
- the articulation of the draft National Solid Waste Recycling Programme which proposes approaches to recycling and resource recovery for waste streams based on the concept that "waste is more effectively managed at or near the source of generation" due to the geographic spread of Guyana which increases transportation costs considerably (SDG Target 12.5).
- management solutions identified for alleviating unsightly solid waste are to be integrated across sectors for better efficiency, with emphasis on waste minimisation, improved collection services, and safe and sanitary handling and disposal.
- a mining policy and action plan has been drafted intending to guide the country's management of the sector including promoting the use of sustainable practices (SDG Target 12.2);
- plans have been developed to more strictly regulate the use of mercury in mining over the coming years;
- public procurement procedures have been strengthened, and Vision 2040 outlines the adoption of sustainable public procurement guidelines in line with the 'green' agenda. The Public Procurement Commission (PPC) must lead a strategic review of the procurement system to identify bottlenecks and weaknesses with a view of strengthening accountability, fairness and sustainability in procurement practices.

Focusing on the agriculture sector and food production, the potential for food, as well as, post-harvest losses is a global concern, especially in light of the fact that famine still exists in parts of the world. Additionally, climate change has caused

unpredictable weather, posing a threat to food security. As such, the IAST, NAREI and the GRDB continue to invest in research, development and promotion of more efficient equipment and production practices such as hydroponics and organic fertilisers and pesticides, and new varieties of plant and animal genetic material that are more resilient and higher-yielding. Guyana has focussed on adding value to its agricultural commodities – for example with the development of a locally produced high value vitamin-enhanced rice-based breakfast cereal as opposed to the exportation of its entire rice crop as a commodity. The country also began to diversify its food production from the coast to parts of the hinterland, where vertically integrated, farmer-led co-operatives are being formed to produce food. In all instances, these initiatives are also focussed on the development and promotion of business practices which are respectful of the cultural practices of the indigenous communities within which they are located. Within the sugar industry, in particular, the Guyana Sugar Corporation has raised over G\$16 billion to retool and recapitalise the various sugar factories in order to improve efficiency and reduce losses (SDG Target 12.3).

Complementing Guyana's drive to improve production practices is the management of consumption practices in order to ensure that waste generated be effectively reduced, reused or recycled, with minimal externalities, particularly, on public health and the environment. To this end, one of the initiatives Guyana has rolled out includes a pilot sensitisation programme to educate the public about responsible consumption and disposal of organic waste, which provides an opportunity for composting. Organic waste constitutes between 40 and 50 percent of all solid waste in Georgetown. As such, composting would reduce waste generation allowing the output to be used for other purposes such as fertilising crops (SDG Targets 12.4, 12.5, 12.6 and 12.8).

Additionally, sensitisation on waste separation and storage – the Green Guyana Generation Project – has also been piloted at several primary schools across nine municipalities in order to stimulate the behavioural change necessary to reduce inefficient disposal practices. A total of 50 schools have also been provided with separation bins to encourage this practice. Additionally, Guyana's legislative actions to support sustainable consumption have included banning the importation of styrofoam, in 2016, a traditionally difficult material to effectively dispose and a source of concern, given its potential environmental impacts (SDG Targets 12.4, 12.5 and 12.8).

While Guyana undertakes initiatives to influence consumption and disposal practices, research has also been on-going by various institutions to utilise by-products of production as inputs into other processes. For example, the country has

invested in demonstration facilities for biofuel generation from bagasse, rice hulls and waste forestry biomass – by-products of agricultural sugar and rice production and the value-added logging industry – biodiesel from waste vegetable and animal fats, among others. Though these are currently not large-scale initiatives, Guyana could have the potential to scale up. It should be noted that, notwithstanding the various efforts to minimise and reuse waste and by-products, the country has no operational recycling plant (SDG Targets 12.4, 12.5, 12.6 and 12.8).

All final waste produced, however, are disposed by dumping. There is one sanitary landfill in the country while other parts utilise dump-sites. Since 2015, the sanitary landfill began compaction of waste; the application of daily and intermediate soil cover, and the construction and operations of a leachate treatment facility. Currently, the sanitary landfill is the only site that can be considered 'safe' since it comprises the safeguards that protect the environment and human health. There are about 19 other 'dumpsites' across the country. The Environmental Protection Agency is working to determine which of the 'dumpsites' are suitable to be upgraded and which must be closed and rehabilitated (SDG Targets 12.4 and 12.5).

Institutional and fiscal measures to enhance sustainable practices across the public sector have focused on moving towards sustainable procurement practices. Within national budget preparation, ministries and other budget agencies have been mandated to employ measures to generate efficiencies. These measures include ensuring minimal environmental impact in infrastructure works and procuring only efficient vehicles, equipment and appliances (SDG Target 12.7).

Challenges, Emerging Issues and Addressing the Way Forward

Guyana's efforts toward SCP have been largely fragmented across various institutions and are yet to be concerted and scaled nationally. Solid waste management continues to be a challenge for the institutions managing this sub-sector. Even though a number of initiatives were implemented to enhance waste collection, reuse and disposal, there is significant room for improvement. Consistent waste segregation nationwide would facilitate recycling of high value components of the waste stream. More data is required in order to effectively inform policy and programme design and to support additional funding. For example, country-level data on waste generation, by location and type, is not collected at the moment.

Systems must be put in place to methodically dispose of hazardous waste generated from industry, such as from mining and agriculture as well as municipalities. There are only two facilities authorised to treat hazardous wastes, one specifically focused on medical waste sterilisation, and the other dedicated to treatment of hazardous wastes generated from petroleum exploration. The National Implementation Plan (NIP) for the Stockholm Convention on Persistent Organic Pollutants (POPs), such as obsolete pesticides, proposes to export these pesticides for their proper disposal and for the development of a return system for expired agricultural chemicals to minimise future accumulation of obsolete pesticides.

Additionally, there is no wastewater treatment plant in Guyana to effectively treat wastewater, including from industry and households prior to release into rivers, drainage canals, and the ocean. The establishment of a facility has been delayed, over the years, largely due to the absence of the National Water Council responsible for coordinating water resource management between the various institutional actors and inadequate resources. Guyana also lacks sufficient facilities across the country to safely dispose of solid waste; aside from Region 4, no other region has its own sanitary landfill. Guyana will endeavour to address the lack of adequate facilities by seeking access to additional financing to invest in the relevant facilities.

Notwithstanding individual and industry practices, the energy sector is dominated by fossil fuel generated electricity which generates environmental externalities and contributes to climate change. The national grid is operated by a state-owned enterprise, the Guyana Power and Light Inc. which receives on-lending loans through central government. The country, however, is conscious of the cost of electricity and maintains the need to manage its impact on the household cost of living in light of relatively low prevailing wages. Guyana is examining the possibility of utilising a cleaner source, natural gas, in the medium term, however it has commenced using solar energy, as it gradually transitions the energy mix to 100 percent renewable (SDG Target 12.c).

With regard to sustainable production, environmental management systems are a key tool of businesses to manage the impact of their operations on the environment. Very few companies in Guyana have the ISO 14001 Environmental Management Standard certification, which helps organisations manage the environmental aspects of their operations. However, the Guyana Bureau of Standards provides training and assistance to become certified in this and other quality management standards. International companies that operate in Guyana are often required to meet international standards.

Lessons Learned

Critical to mainstreaming the concept of sustainable consumption and production is the participation of all stakeholders. Changing practices to modern, more efficient, environmentally-friendly and sustainable ones require the education and buy-in of households and businesses, among others. As such, Guyana is desirous of moving beyond pilot programmes and expanding public sensitisation and awareness programmes in sustainable consumption and lifestyles, promoting inclusivity and driving positive change through citizen participation.

Complementary to education on SCP practices is the general education delivery of STEM in the school system. Improving educational outcomes, specifically in STEM subjects, is the key contributor to improving and stimulating research, innovation and development in the economy. This underpins technological advancements that drive resource-efficiency gains and advancing SCP practices. To this end, Guyana continues to prioritise improvements in education and seeks development assistance and bilateral partnerships.

In light of Guyana's small economy, inadequate financing continues to hamper accelerated improvements across sectors, partly applicable to education as well. More so, with regard to SCP, adequate financing is critical to the necessary investments to achieve national goals, including the SDGs. These include the construction of treatment and disposal facilities, among other interventions. Sustained financing is also required to ensure the operational viability of such investments, once constructed.



SUSTAINABLE DEVELOPMENT GOAL 13:

TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

Context and Key Achievements

Guyana, a net carbon sink, is 'particularly vulnerable' to climate change because of its geography and historical settlement development³⁶. The majority, some 90 percent, of Guyana's approximately 745,000 population³⁷ lives along the narrow coastal strip, which ranges from a width of 16 to 64 kilometres inland, and makes up approximately 10 percent of the nation's total land area. The adverse, and potentially catastrophic, impacts of climate change are already conspicuous in Guyana: the country has seen the increase in '1 in 100 years' events such as the Great Flood of 2005, which destroyed 60 percent of the GDP; and has also experienced several localised extreme weather events, such as intense rainfall and droughts in the hinterland regions, that have never been witnessed before; and such as storm surges in the West Coast of Demerara. Guyana has 360km of low-lying coastland and, as such, sea defence is necessary to safeguard the livelihoods and homes of those living in the coastal zone. Climate change has the potential to impact communities throughout the country as well as critical sectors such as agriculture, water, energy and health as well as access to education facilities. Cognisant of existing vulnerabilities, Guyana has always undertaken efforts at the national and international levels to combat climate change. More recently, the country became one of the first to ratify the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), on May 20, 2016.

Based on these characteristics, Guyana has placed climate change among its highest strategic priorities with demonstrated leadership and political will by the President of the Co-operative Republic of Guyana, H.E. David Granger. Strategic direction and political will are key cornerstones for successful climate change governance and effective policy implementation.

In keeping with the country's strategic vision and the priority of climate change within the national context, the Office of Climate Change (OCC) has the mandate to lead in the

development and implementation of national policies, strategies and actions for climate change mainstreaming. It is also responsible for the coordination of climate change adaptation efforts, mitigation and forest conservation across sectors and agencies at the national and regional levels. The OCC is the focal point for the UNFCCC and is tasked with ensuring that the government fulfils its obligations as a Party to the Convention and Protocols. The OCC also plays a leading role in the engagement and dialogue with multilateral agencies on behalf of the government, to establish partnerships and facilitate access to technical and financial support for low carbon initiatives and climate change mitigation and adaptation, in furtherance of national development thrust.

Box 13.1 - Inclusive Participation

Guyana values engagement and consultation with key stakeholders on matters of national importance and prefers to involve stakeholders in policy debates and design from the inception. In support of this principle, the OCC also engages extensively with stakeholders through special purpose committees, working groups and other fora.

Some of these include but are not limited to:

- Having a fixed term limit steering committee to advance initiatives implemented by the government
- Engagement with municipal representatives
- Public forum, including workshops and community discussions
- Engaging with development partners to discuss government policies and strategies and to mobilise support for government action
- Engagement with umbrella organisations representing private sector, civil society and youth
- Engagement with indigenous representatives and ngos
- Partnerships with youth organisations, ministry of Education, University of Guyana.

³⁶ Guyana is considered to be high risk, ranking 15 out of 33 in terms of its vulnerability (on the climate change vulnerability index). At a disaggregated level, Regions 4 and 5 are ranked as being extremely vulnerable. The high to extreme vulnerability is driven by the low adaptation capacity measured by the following parameters: the strength of the economy; — the level of dependence on agriculture, or other vulnerable activities, to support the economy; — the effectiveness and stability of the government; — the ability of a country to develop innovative technologies or practices; and — the level of knowledge transfer and communication to the populace; — the availability of natural resources.

³⁷ Source: Bureau of Statistics, 2019

Recognising an effective response to climate change requires the establishment of appropriate institutional arrangements and mechanisms to facilitate and guide the planning process for integration of climate change adaptation, mitigation and resilience building across sectors, at the national, regional and local levels, and foster greater coordination, collaboration, and implementation of climate policies, strategies and plans, the government re-established the National Climate Change Committee (NCCC)³⁸. The NCCC serves as the consultative and advisory body in support of the OCC's mandate. Members of the NCCC constitute Focal Points from government organisations, private sector, youth, women and civil society, to serve as the consultative and advisory body in support of the mandate of the national focal agency on climate change.

Cognisant of the consequences of climate change, Guyana has made strides to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries through i) the development of a Disaster Risk Management Bill (draft); ii) Damage Assessment and Needs Analysis (DANA) training (52 persons from five (5) Administrative Regions were trained); iii) Regional Disaster Risk Management Systems (RDRMS) in nine Administrative Regions including multi-hazard preparedness and response plans; iv) Community-Based Disaster Risk Management (CBDRM) in 38 communities across Guyana including a CBDRM plan; v) Comprehensive Disaster Management (CDM) Country Work Programme (CWP) 2015-2018 and 2019-2024 and five municipality Disaster Risk Management plans. The guiding documents aim to facilitate the implementation of CDM programmes and initiatives across all sectors in Guyana and were developed in keeping with the CDM Strategy for the Caribbean and the Sendai Framework for Disaster Risk Reduction (SFFDRR) through a multi-stakeholder participatory approach. Representatives from 23 stakeholder agencies were sensitised and engaged in the CDM identification of indicators for their sectors. This was a first time achievement in terms of sector engagement in the CWP development (SDG Target 13.1).

Additional climate mitigation policy measures instituted by Guyana include an Integrated Sea and River Defence Sector Strategy, approved in 2016. With regard to physical works for climate change resilience and mitigation, over the last few years, 10 kilometres of sea defence structures have been reconstructed and rehabilitated in Regions 2, 3 and 6. Another form of sea defence that Guyana is leveraging is mangroves,

which form a natural defence against shoreline erosion. The authorities embarked on mangrove restoration, protection and management and the establishment of Village Mangrove Action Committees, where community members were trained in mangrove ecology, restoration and management, seedling propagation and monitoring. The project successfully restored 142 hectares of coastal mangrove forest. Approximately 250 km of the Guyanese coastline is protected by a mangrove belt backed up by an earth embankment.

As part of our commitment to integrate climate change measures into national policies, strategies and planning, Guyana's initiatives include:

1. development of the National Climate Change Policy and Action Plan;
2. development of the National Climate Change Communications Strategy and Implementation Plan;
3. drafting the Third National Communications to the UNFCCC;
4. preparing the first Biennial Update Report to the UNFCCC;
5. drafting the National Adaptation Plan;
6. preparing the Health National Adaptation Plan; and
7. elaborating nationally appropriate mitigation actions for greening of towns.

At the international level, Guyana was among the countries to submit its Intended³⁹ Nationally Determined Contributions (INDC), in October 2015, under the UNFCCC. This submission followed an intense public consultation process that began in early 2015. As with all others, Guyana's INDC outlines domestic conditional and unconditional contributions to the global effort to combat climate change and support the imperative to limit global temperature increase to 1.5°C. In its NDC, it is noted that *"...Guyana is offering to defer the pursuit of our historic natural resource exploitation-based economy, and offer our huge carbon stocks to the world if, in return, our sustainable human development needs and the cost of deferring business as usual are met by financial support from the international community in a predictable, just and equitable manner."* Guyana and the UNFCCC, recognise a common and differentiated responsibility for sustainable development. For Guyana, national commitments were made that targeted the forest and energy sectors, which has produced the majority of emissions, both current and historic. Importantly, sustainable forest management and conservation

³⁸ It was re-established in 2018 under the Ministry of the Presidency. It was first established in 1995 and went through several periods of dormancy. The previous re-launched in 2007 under the Ministry of Agriculture and was dormant post 2012. The re-established committee has expanded its membership to include youth representatives, women and 'new' stakeholders.

³⁹ The word "intended" was used because countries were communicating proposed climate actions ahead of the Paris Agreement being finalised. However, as countries formally join the Paris Agreement and look forward to implementation of these climate actions – the "intended" is dropped and an INDC is converted into a Nationally Determined Contribution (NDC).

are highlighted as key to the country's fight against climate change, and is in keeping with the national implementation of REDD+ (Reducing Emissions from Deforestation and Forest Degradation) in Guyana.

REDD+ is a mitigation measure that Guyana has employed since 2008 as part of its national effort to combat the effects of climate change. A programme of REDD+ based on prevailing good practice methods must generate sufficient economic incentives to reflect the global benefits provided by Guyana's efforts in maintaining standing forests, and create new economic alternatives to deforestation that will limit any future increase in emissions. In December 2014, Guyana further solidified its dedication to the UNFCCC REDD+ process through committing to maintaining its deforestation rate below a stated reference level, above which it will accept penalties. The country submitted its proposal for the Reference Level for REDD+ to the UNFCCC⁴⁰. The proposal is based on the Combined Reference Level Approach, determined to be the most appropriate method for Guyana and one which allows for the broadly accepted objective within the UNFCCC negotiations to be fulfilled. The country's reference level commitment is based on its position that an international REDD+ framework must provide genuine incentives for forest conservation in low-deforestation countries, as it ensures that the realisation of these commitments have a positive contribution to global mitigation efforts.

At the local level, the country has been aggressive in putting in place and strengthening, where possible, resilience and adaptive capacity to climate-related event, hazards and natural disasters. Regional Disaster Risk Management (RDRM) and Community Based Disaster Risk Management (CBDRM) Systems are being implemented in nine administrative regions and 38 communities across Guyana. Ninety (90) percent of the administrative regions have multi-hazard preparedness and response plans and CBDRM plans have been developed in keeping with the CWP and National DRM strategy and plan. Additionally, five (5) municipality DRM plans were developed. Moreover, a national Sustainable Villages Policy for indigenous communities has been adopted in which by 2022, all indigenous communities are expected to develop multi-year village improvement plans in which overall community well-being will be improved as measured through key criteria in health, education, culture and tradition, nature

and environment, economic livelihoods, and governance. Additionally, Plans of Action for Regional Development (PARD) are to be rolled out in all regions starting with the Rupununi Region in which climate change resilience and adaptation forms a central pillar (SDG Target 13.1).

In an effort to advance climate-smart technologies, Guyana has prepared Technology Action Plans and Project Idea Notes for prioritised technologies for i) climate change mitigation within the forests and energy sectors and ii) climate change adaptation in the coastal zone and low-lying communities, water and agriculture, sectors through a technology needs assessment (TNA). The TNA supports national sustainable development, builds national capacity and facilitates implementation of prioritised climate technologies. Some implemented initiatives include the reforestation of mined out areas utilising fast growing species such as the Acacia; the deployment of efficient recovery systems in small- and medium-scale gold mining; solar farms to service urban centres and supply the national grid; freshwater harvesting, and; ground and surface water mapping and modelling.

Given the importance of effective communication and information dissemination to enable climate change response, education and awareness programmes were strengthened to allow individuals to understand the problem, encourage dialogue and recognise the need for positive behavioural change. In 2017, the Office of Climate Change commenced the institutionalisation of climate change awareness and education, through a School Outreach Programme in primary, secondary and tertiary institutions across the country, benefitting more than 5,000 students. Additionally, social media platforms are being used to increase awareness and promote participation in climate action.



⁴⁰ REDD+ is a decision that was agreed on at the UNFCCC conference of parties (COP), particularly for developing countries and is very critical for mitigation. As part of the UN REDD+, program countries are required to develop Forest Reference Emission levels. Additionally, given REDD+ enables results-based payments pre-requisites to obtain that would be the development of Key documents such as a REDD+ Strategy among others. This project is being undertaken by Guyana through the Ministry of Natural Resources- Project Execution Unit "Forest Carbon Partnership Facility Project".

The Department of Environment, responsible for leading the transformation of Guyana into a green state and ensuring environmental management and compliance across the country, has been pursuing additional climate education initiatives including:

1. preparation of a National Climate Change Education Strategy and Implementation Plan;
2. implementation of Annual Schools' Climate Change Education and Awareness Programme;
3. supporting curriculum reform to ensure comprehensive climate change education (Grades 5, 6, 7, 8, 9);
4. development of post-secondary environmental education courses to be implemented by all technical and vocational education and training institutions, as well as Cyril Potter College of Education (national teachers' training college), and a select number of private universities;
5. development of environmental technician levels 1 and 2 courses to be implemented by all TVET institutions;
6. preparation and dissemination — through radio and television — of public service announcements on all three Rio Conventions;
7. development of Public Awareness and Education Strategy; and
8. development of a global education module.

These initiatives are all geared towards improving public awareness and education on climate change and environmental sustainability, such that each beneficiary may be able to make informed and climate-smart choices⁴¹.

Additional education and training in Damage Assessment and Needs Analysis (DANA) were undertaken since 2015 with 52 persons from five administrative regions benefitting. The DANA training equipped regional representatives and Civil Defence Commission (CDC) volunteers to effectively assess post impact losses and damages, including human impact. The regions were also provided with gear and equipment to aid in the conduct of DANA.

The Civil Defence Commission, of Guyana, has the mandate to coordinate all efforts regarding disaster risk reduction (DRR) and disaster risk management (DRM) in Guyana. Owing to the multi-faceted nature of the response efforts, partnerships and collaborations have been formed with various entities, including ministries, private sector, non-governmental organisations such as the Guyana Red Cross Society, community-based organisations, faith-based organisations, regional, and international organisations for support and effective emergency responsiveness.

With regard to physical works for climate change mitigation, over the last few years, 10 kilometres of sea defence structures have been reconstructed and rehabilitated in Regions 2, 3 and 6. A monitoring system was put in place with a view to increasing the knowledge-base and comprehension of the dynamics of the coast, as well as initiatives focused on sensitising the general public on the issues related to shore zone management. Efforts also continue to ensure drainage capacities are improved to reduce flooding, specifically, with the procurement of high-volume drainage pumps. Given the vulnerability created by Guyana's low-lying coast, its sea and river defences are of the utmost importance.

To effectively monitor the progress that Guyana makes in reducing its carbon footprint and impact on the environment, the country has begun work to develop a greenhouse gas inventory (GHG-I). Guyana recognised the need to create a more permanent, robust, transparent and structured system to improve accuracy, accounting, and efficiency to execute greenhouse gas inventories and has begun work to develop a national greenhouse gas inventory.

41 Given the limitations of recycling in Guyana, up-cycling, reduction and reuse are promoted

Box 13.2 - Highlights on selected Climate-Related Projects and Programmes

Guyana has undertaken initiatives to build resilient infrastructure, green towns, and urban public spaces through, *inter alia*:

- Retrofitting health facilities to SMART facilities that link structural and operational safety with disaster risk management, while increasing efficiency and reducing carbon emissions.
- Integrating climate considerations within the housing sector through the “Adequate Housing and Urban Accessibility Programme” by the Central Housing and Planning Authority; aimed at providing updated and granular information on the vulnerability profile of Georgetown’s territory, and develop locally appropriate response plans (mitigation assessment, vulnerability assessment and urban growth study were done for Georgetown as part of the programme).
- Updating building codes to enhance the energy efficiency, water conservation, materials management, building safety and resilience.
- Increasing climate-resilient sustainable development for improved food and water security, through:
 - Investments in affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in rural, low lying and drought-prone communities. Specifically, interventions aimed at improving water storage and accessibility in Region 9:
 - Collaborative efforts among the Office of Climate Change, United Nations Development Programme and the Guyana Water Inc under the Japan - Caribbean Climate Change Partnership (JCCCCP) to map aquifers and drill wells in Nappi, Hiawa, and Parishara.
 - South-South Co-operation between Brazil and Guyana for the drilling of eight wells and technology transfer.

Challenges, Emerging Issues and Addressing the Way Forward

Notwithstanding Guyana’s achievements with regard to climate change adaptation and mitigation, challenges and gaps in the areas of technical capacity, data and financing hinders progress. Inadequate capacities for the conduct of monitoring and evaluation have constrained the effective implementation of various programmes, including the CWP, and hazard and vulnerability mapping. While some mapping and planning work has been done, such information is scattered throughout a number of different departments and agencies making it difficult to access and analyse data.

Some of the country’s specific data challenges include: 1) limited climate-related information collected, especially in priority sectors; 2) no standardisation of data collection methodologies; 3) no centralised system or database for climate-related data and; 4) lack of empirical research on linkages between climate events and related impacts, sector-specific socio-economic impact studies and cost benefit analysis of adaptation. Noteworthy, under the Paris Agreement Enhanced Transparency Framework, detailed data and information for reporting is essential in keeping with the Paris Agreement Work Programme. Data on the specific area of greenhouse gas emissions, however, will be forthcoming in the future as the country advances its GHG-I system.

Resource constraints have stymied key activities such as the implementation of the CWP and RDRMS, the scaling up of CBDRM and the move towards implementing early warning systems for vulnerable communities. Going forward, capacity building is necessary both at the regional and local administrative levels. While limited local capacity leads to outsourcing expertise, there is a need to improve and retain local technical capacity, *inter alia*, climate modelling, vulnerability assessment, and GHG-I.

Limited domestic fiscal space has resulted in high dependence on international donors as the main source of climate finance and consequent prolonged and tedious processes of procuring climate-related funds. Given the developmental gaps existing for basic social services as well as gaping infrastructure deficits to support intra-hinterland and hinterland to coastland connectivity, opportunity cost decisions within limited domestic resources to implement the generally costly climate-mitigation initiatives and disaster risk management (DRM) activities continue to challenge policy implementation.

Box 13.3 - Guyana's National GHG-I System

Key actions, to date, taken to establish the GHG-I system include:

- Establishment of an Ad-hoc Committee for the institutionalisation of national GHG-I across key sectors in Guyana.
- Identifying national and sectoral needs for capacity development, technology transfer and access to finance for the compilation and preparation of the GHG-I.
- Strengthening technical expertise across the agencies for reporting GHG emissions, as of 2018 Guyana now has two expert reviewers in the energy sector.
- Using the Monitoring, Reporting and Verification System (MRVS) in the forestry sector to enable the development of sector-specific GHG-I to improve data collection and recording.
- Development of a MRVS in the aviation sector through the draft Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) Regulations in Guyana.
- Standardised baseline established for the national grid led by the Guyana Power and Light Inc, pending approval from the United Nations Framework Convention on Climate Change (UNFCCC).
- Capacity building in data management and GHG-I through the UNFCCC.

Lessons Learned

The crosscutting nature of climate change, resulting from its potential to impact all sectors, is similar to the experience of many other SDGs. To be most impactful, climate-mitigation efforts must be effectively coordinated and implemented throughout all sectors, including at the policy, programme delivery and evaluation levels. Additionally, these efforts must be at a significant scale to ensure critical masses are attained to trigger the required change and ensure sustainability. Notable lessons in this area include the importance of: i) the institutionalisation of national climate change priorities to address data gaps for evidence-based decision making; ii) stakeholder involvement to ensure continuity and advancement of national priorities, and; iii) climate governance.

The need to strengthen data systems also features as a recurring challenge across most sectors. Being a small and developing economy, the national statistical system is still woefully underdeveloped. Strong and mature data systems are required in order to generate the information necessary to monitor Guyana's progress towards its climate-change commitment and its transition to a green economy. Often time, expansion and encompassing of data systems require significant financial investments – a challenge for Guyana, as well as many developing countries.

Further, Guyana's experience, particularly with poor solid waste management, reinforces the importance of inclusivity and coordination in the implementation of programmes. Changing individual behaviours and consumption patterns require significant reach into the public consciousness and various modes of consultation must be explored to achieve this. Not only are inclusiveness and partnerships required for public programmes to be effective and sustainable, but also to ensure that no Guyanese is left behind.



SUSTAINABLE DEVELOPMENT GOAL 14:

CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS, AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Context and Key Achievements

Guyana's share of marine resources owes to its location of being bordered by the Atlantic Ocean to the north. The exclusive economic zone of Guyana is generated by a coastline of approximately 285 miles that projects seaward to a distance of 200 nautical miles into the Atlantic, taking into consideration the maritime entitlement of its neighbours. The rich marine habitats of Guyana are related to its biodiversity and abundance of marine species. The fishing industry is dependent on the sustainability of marine resources and contributes to the economy in terms of export earnings and jobs, as aquaculture, marine and inland fisheries activities account for approximately 1.6 percent of GDP, as at 2018⁴². The overall Ocean Health Index score for Guyana in 2018 is 62; ranking 155 among 221 EEZs⁴³. The Index comprises a number of components related to the coastal and marine environments such as carbon storage, food provision, livelihoods and biodiversity, among others, assessing each on the basis of the current status, historical trend, existing and potential pressures and resilience.

As Guyana endeavours to ensure effective management of its natural resources and their protection from exploitive actions, Vision 2040 envisages that the use of marine resources, including fishing, aquaculture, oil drilling, will be guided by evidence-based sustainability standards and practices. This will generate improved benefits for certified and sustainable products to access international markets and spur development of a skilled local labour force. Complementary to prescriptions for marine management in Vision 2040, Guyana has a number of legislations and has signed and/or ratified a number of multi-national environmental agreements (MEAs) which include:

- United Nations Convention on Biological Diversity (UNCBD) which aims to conserve biological diversity, sustainably use the components of biological diversity, and to ensure the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources;
- Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (1983) and its related protocols concerning pollution from land-based sources and activities (the LBS Protocol), specially protected areas and

- wildlife (SPAW Protocol) and oil spills (Oil Spill Protocol);
- The Fisheries Act of 1957 was redefined and adapted to be more relevant to national and international requirements by the Fisheries Act, 2002. It takes into account the FAO Code of Conduct for Responsible Fisheries and the United Nations Convention on the Law of the Sea (UNCLOS). The marine fisheries regulations were revised to address various management plans, licensing and registration of processing plants and vessels;
- The Marine Fisheries Management Plan (2013-2020) was developed through the ACP Fish II project and updated the previous Fisheries Management Plan focuses on the marine fisheries sub-sector which comprises the offshore industrial shrimp trawl and red snapper fisheries;
- The National Biodiversity Strategy and Action Plan (2012-2020) fulfils Guyana's obligations to the Convention on Biological Diversity (UNCBD) and includes actions related to marine biodiversity;
- Guyana recently signed on to the International Hydrographic Organisation which endeavours to ensure that the world's seas, oceans and navigable waters are properly surveyed and charted;
- Guyana also signed on to the UN Clean Seas Campaign as well the Commonwealth Clean Oceans Alliance – both of which aim to reduce the pollution of the oceans caused by plastic.

The composite of institutions responsible for enforcing the tenets of these laws and regulations include the Ministry of Agriculture through its Fisheries Department; the Environmental Protection Agency; the Protected Areas Commission and the Ministry of Foreign Affairs. However, at this stage of maturity in marine resource management, Guyana is yet to discern its full potential; currently, fishing is the main activity that draws on marine resources and, only recently, has petroleum exploration advanced to the stage of viable production in Guyana's territorial waters.

⁴² State of the Environment Report 2017

⁴³ See details of overall rank at <http://www.oceanhealthindex.org/region-scores/scores/guyana>

In the last decade, Guyana has undertaken to improve the sustainability of its fishing resources, focussing on seabob. The seabob fishery is currently undergoing Marine Stewardship Council (MSC) assessment, which, by the end of July 2019, will provide highlighted areas for improvement. The MSC aims to *“contribute to the health of the world’s oceans by recognising and rewarding sustainable fishing practices, influencing the choices people make when buying seafood and working with our partners to transform the seafood market to a sustainable basis”*.

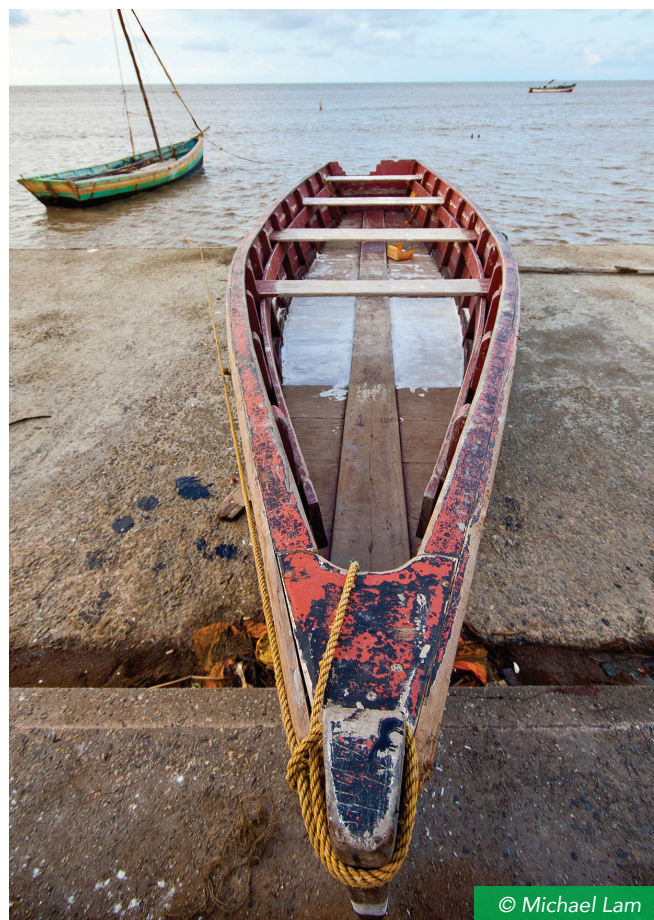
Once the MSC is achieved by Guyana for its seabob fishery, a blue eco-label will be placed on the product which indicates that the seabob can be traced back through the supply chain to a fishery that has been certified against the MSC standard. Currently, Guyana’s Seabob Working Group (SWG) continues to work towards MSC certification for the seabob fishery. Since then the industry developed an action plan to address these obstacles (SDG Targets 14.2 and 14.4).

In 2016 Guyana became the 25th state to ratify the Port State Measure Agreement (PSMA) which has entered into force. The PSMA aims to “to prevent, deter and eliminate illegal unreported and unregulated fishing (IUU) by preventing vessels engaged in IUU fishing from using ports and landing their catches.” Since the ratification, the Fisheries Department has worked to develop its technical proficiency and capacity in the fight against IUU. The following achievements were met regarding the reduction of IUU fishing (SDG Target 14.2 and 14.4):

- Stakeholder training on the implementation of the PSMA with the support of the Food and Agriculture Organization (FAO).
- The Fisheries Department is currently working on establishing the National Working Group on PSMA.
- Surveillance and enforcement activities have increased nationally. There were twenty-six (26) surveillance exercises conducted within the industrial, semi-Industrial and foreign sectors, from a total of five (5) wharves in first half of 2019.

While the efforts above, resulting from international commitments, have been crucial to improving the sustainability of the fishing industry, wider efforts to protect marine life are on-going. Aquaculture development has been prioritised and promoted as an opportunity to diversify the industry without requiring open-sea fishing which has potential for negative externalities for marine life (SDG Targets 14.1, 14.2 and 14.4).

With regard to protection of its marine life, the establishment of the Shell Beach Protected Area has been instrumental to ensure the future existence and population recovery of all four species of marine turtles known to nest on the Beach, while at the same time addressing the needs of the local communities. Additionally, the area’s bird diversity is one of the richest in Guyana with over 200 species of coastal and migratory birds recorded (SDG Targets 14.2 and 14.5). The sustainability of marine life is also dependent on the quality of water for which the Environmental Protection Agency (EPA) is responsible for monitoring. The EPA’s Authorisation Process allows the management of potential eutrophication sources. Developmental activities which will discharge contaminants that have high nitrogen and phosphorus and can cause eutrophication content are restricted by discharge limits and other water quality management conditions. In specific cases, depending on the nature of the project, these activities would require the preparation of an Environmental Impact Assessment. If the potential impacts have a possibility to significantly cause pollution to the marine environment, the Agency can reject the development. Additionally, the EPA participates and lends support to the coastal clean-up organised every year by the Caribbean Youth Environment Network (CYEN), Guyana chapter.



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Box 14.1 - Update on the Action Plan for Seabob Fishery

1. A Seabob Working Group (SWG) was established to guide the Guyana Association of Trawling Owners and Seafood Processors (GATOSP) in achieving MSC certification.
2. In 2013 a stock assessment was conducted on the seabob fishery, which resulted in the development of a Harvest Control Rule (HCR) in 2014.
3. With the HCR in place, seabob vessels efforts are restricted to 225 days at sea 4. In 2014, a Vessel Monitoring System (VMS) was implemented (full implementation in 2015) and made mandatory for all seabob vessels. The spillover effect resulted in prawn vessels also being equipped.
4. The seabob and prawn fishery are the only officially zoned fishery in Guyana, each vessel type can fish between varying depths. Seabob vessel trawl between 8 – 18 fathoms as of April 16, 2018 (vessels trawled between 7 – 18 fathoms from 2015 – April 15, 2018). Prawn vessel are permitted to fish above 18 fathoms.
5. The reduction of by-catch is an important aspect of sustainable fishing, as such by-catch reduction devices (BRD) are a mandatory on all seabob trawlers from 2015.
6. The General Marine Fisheries Regulations entered into during 2018.
7. Before the regulation was entered into force a Memorandum of Understanding (MOU) was established to have the Fisheries Department enforce the Draft Regulations, Draft Guyana Marine Fisheries Management Plan 2013 – 2018 and Draft Seabob Fisheries Management Plan 2015 – 2020.
8. The Guyana Marine Fisheries Management Plan 2013 – 2020 was developed.
9. Developed a Last Haul Programme to collect data on by-catch, with specific focus on discards from the seabob fishery.
10. Collaborated with the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) on multiple projects including:
 - a. Review of the Draft Guyana Marine Fisheries Management Plan 2013 – 2018 and Draft Seabob Fisheries Management Plan 2015 – 2020 and the Captain's Code of Conduct,
 - b. Conducted an assessment on some commercial by-catch species. The Fisheries Department provided the data necessary to have the assessment done, and a report should be available in 2018.
 - c. Conducted an assessment of ecosystem and habitat with a goal of providing maps of the marine habitat and linking catch data with VMS data, report available in 2018.
 - d. Training on stock assessments, port and offshore sampling and habitat mapping.
 - e. Training on database management and R / RStudio to provide the ability to analyse data from the stock assessments and the habitat and ecosystem.
 - f. Conducted a mini assessment on Principle 2 to guide SWG in improving overall score in the MSC process.
 - g. Special training of observers.
11. Data limitations have been restrictive in achieving MSC, to fill the gap, several collaborated researches were conducted between 2016 – 2018:
 - a. Mapping of benthic habitats on the Guyana shelf, 2018.
 - b. Guyana commercial sampling scheme and stock assessment on three key commercial species, 2018.
 - c. Impact of Guyana seabob trawl fishery on marine habitats and ecosystems: A preliminary assessment, 2018.
12. Enhanced monitoring control and surveillance (MCS) activities in the seabob fishery with the mandatory implementation of CCTV cameras on all seabob trawlers.
13. Conducting a second stock assessment on the seabob fishery in 2019.
14. Improved data collection on endangered, threatened and protected (ETP) species through vigorous training (internal and external) and strategic data collection schemes from 2015 onwards.
15. Captains of the seabob fishery are trained annually on the best practices as it relates to the Captain's Code of Conduct. To reduce marine pollution, emphasis is also placed on the proper disposal of garbage out at sea. All seabob vessels have garbage bins.

Challenges, Emerging Issues and Addressing the Way Forward

Given the imminence of petroleum production, increased focus has been warranted for the protection of Guyana's marine life. To this end, the EPA will continue to require and rigorously scrutinise environmental impact assessments of prospective petroleum developments, as it has been doing; these developments are currently exclusively concentrated offshore. Notably, an inter-ministerial technical committee on petroleum has been established to coordinate all aspects of the state's oversight of the petroleum industry including disaster preparedness, environmental compliance and reviewing field development proposals, among others. This should facilitate donor coordination to ensure that the requisite expertise is sourced to strengthen country systems to effectively regulate the sector, including for the protection of the marine habitats.

Notwithstanding the potential challenges that petroleum production could bring, Guyana remains committed to the highest standard of protection for its national patrimony. To effectively safeguard and sustainably harness its resources, aside from petroleum production, adequate monitoring and data generation is required. Illegal, unreported and unregulated fishing presents its own difficulties in sustainable management of the fish stocks as it causes lower landings relative to the actual catch to be reported, and this makes it difficult to accurately estimate Catch Per Unit Effort (CPUE). Inaccurate stock assessments due to false declarations will inhibit effective management of the fisheries resource. To alleviate this, Guyana will endeavour to improve its monitoring capacities through the procurement of a fishing monitoring vessel and other measures, such as monitoring devices, previously mentioned, to ensure that adequate data is generated for effective planning and management. Additionally, with the support of international partners such as the UK Hydrographic Office and WWF Guianas, marine geospatial data will be generated to allow the country to better manage its marine and coastal systems and develop a maritime economy plan.

While data systems continue to be strengthened, Guyana will also prioritise the promotion of sustainable marine-affecting practices. Through the implementation of the Fisheries Management Plan, artisanal and commercial fishers will be supported towards the adoption more sustainable practices. This will include encouraging Marine Stewardship Council certification among commercial producers as well as expanding commercial aquaculture by both the public and the private sector, to relieve pressure on marine fisheries and facilitate sustainable fishing practices. Additionally, Guyana will undertake an initiative to "Strengthen Ecosystem

Based Management Frameworks and Ocean Governance in the North Brazil Shelf Large Marine Ecosystem". One of the key components of the project is an ecosystem-based management approach that will be used to guide actions at pilot sites selected to address impacts and mitigate land-based sources of pollution. Meaningful stakeholder engagement will be critical in addressing potential challenges and buy-in for the promulgation of sustainable, pollution-minimising, practices (SDG Targets 14.1 and 14.2).

Given the breadth of work required to be undertaken to strengthen marine management, the local institutional capacities need to be strengthened. The EPA is constrained in monitoring compliance with water quality conditions due, in part, to the lack of equipment. The EPA has no water quality testing equipment and outsourcing testing for parameters that may cause eutrophication are expensive. Also, actual monitoring of the marine environment is not conducted. The EPA needs technical guidance on how to establish sampling locations in the marine environment. Additionally, in order to effectively implement the various provisions of law and international commitments with regard to maritime management, the Fisheries Department will also require institutional strengthening. Overall, a concerted national effort will be required to effectively plan for the sustainable management of marine systems.

Lessons Learned

Given the state of marine resource and ecosystems management, institutional strengthening is paramount. Sustainable management of the ocean requires sufficient capacity to assess available marine resources and generate the relevant data and analysis required to make informed decisions that would result in sustainable practices. In this particular instance, the cost of obtaining marine related data can be prohibitive due to the high cost of conducting studies. Notwithstanding, data continues to be a key priority for Guyana, in order to ensure that interventions related to marine life are targetted. Therefore, the need for partnerships must be emphasised, as Guyana recognises that the costs of detailed marine studies cannot be feasibly borne alone. Strengthened data would support monitoring, to manage fishing in the ocean, and in the future, other potential resources that the marine systems have to offer.

Institutional strengthening is multi-pronged and also has to be prioritised for the regulators of all sectors whose activities interface with marine resources. This will include building technical proficiencies of regulators to assess: the impact of petroleum production on marine life, the effects of pollution on eco-systems and overall improve their capacity to implement and enforce marine-related laws, as well as international treaties and commitments. In addition to improving regulatory capacity, innovation needs to be accelerated to ensure sustainable use of marine resources, which supports conservation as well as generates economic benefit, for instance through marine tourism.



SUSTAINABLE DEVELOPMENT GOAL 15:

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

Context and Key Achievements

Guyana's terrestrial ecosystems represent a large portion of its rich cultural and natural history, while being a critical resource for sustainable development, with multiple uses including extraction such as forestry and mining, nature and community tourism, agriculture, housing, and services. The country's recorded efforts in conservation and sustainable management of terrestrial ecosystems date back to 1929 with the establishment of the Kaieteur National Park, and are now guided by the GSDS. The GSDS, the successor to the Low Carbon Development Strategy (LCDS), highlights the principles of conservation and sustainable use of biodiversity and increased resource efficiency, recognising the role nature plays in Guyana's economic and social well-being, and in decoupling economic growth from environmental degradation. Guyana continues to recognise the importance of preserving the ecological diversity and functionality of its forests and does so by a policy of blended conservation and controlled exploitation as part of a "green state" (SDG Target 15.9).

The national commitments in the GSDS regarding sustainable land use and soil use include: 1) conserve an additional 2 million hectares through Guyana's National Protected Area System, continuing to use its monitoring, reporting and verification (MRV) system and 2) continuing promotion of the Iwokrama as a dedicated place for research "to develop, demonstrate, and make available to Guyana and the international community systems, methods and techniques for the sustainable management and utilisation of the multiple resources of the tropical forest and the conservation of biological diversity" (SDG Targets 15.1, 15.2, 15.5 and 15.9).

To complement its national commitments, Guyana also undertook international commitments, including in its Nationally Determined Contributions, submitted to UNFCCC, which features Sustainable Forest Management. Forest Regulations, including Codes of Practice for Timber Harvesting and Non Timber Forest Products to enable the implementation of the Forest Act of 2009, were issued detailing the legal modalities for forest activities, in 2018. These are centred on reducing the ecological footprint of infrastructure, reduced impact logging, and conservation of high value forests (SDG Targets 15.1, 15.2, 15.5 and 15.9). A mining policy and action plan has also been drafted which commits to map the country's mineral resources, thus reducing issuance of concessions for unproductive lands.

This policy and action plan also seeks to promote efficiency in the mining sector and therefore reduce the overall impact of mining on the environment, particularly through the use of mercury-free technologies. Guyana aims to move towards stricter regulation of mercury importation, in keeping with the Minamata Convention on Mercury (SDG Targets 15.1, 15.2, 15.4, 15.5 and 15.9).

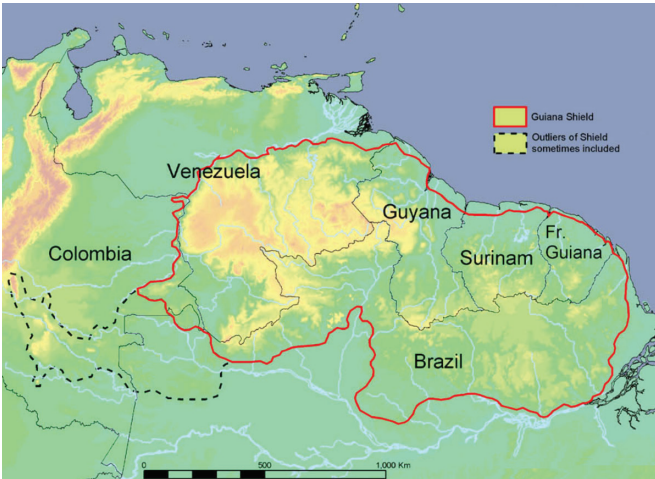
Guyana is classified as a "high forest cover - low deforestation rate (HFLD)" country and has maintained a level of 87 percent forest cover⁴⁴ for the past ten to fifteen years – ranking among the five highest percentages in the world⁴⁵. It ranks second in the world to Suriname, another Guiana Shield country, in relation to the forest cover per capita; and second in the world (to Iceland) of countries with the most freshwater resources per capita. With forests that cover an estimated area of 18.5 million hectares, Guyana has maintained a historical low deforestation rate, ranging between 0.01 and 0.079 percent annually, driven mainly by mining and marginally by agriculture. The rate fell to 0.05 percent in 2016 (SDG Targets 15.1, 15.2 and 15.5).⁴⁶ Additionally, as Guyana consistently meets its international forest reporting requirements, the independently verified seventh Monitoring, Reporting and Verification System (MRVS) report was published and functions as a monitoring tool that is used to track Guyana's forest cover and deforestation rate by varying drivers to determine the extent and causes of forest degradation. The MRVS has also resulted in institutional strengthening by building upon existing capabilities, such as mapping and forest inventory expertise. In addition, several workshops to build capacity among targeted stakeholders were conducted. The MRVS is used to ensure Guyana's ability to effectively implement the National REDD+ Programme (SDG Targets 15.1 and 15.2).

44 Green State Development Strategy – Vision 2040.

45 <http://hdr.undp.org/en/indicators/100806>

46 See Annex A(3) Sustainable Management of Natural Resources, Green State Development Strategy: Vision 2040

Figure 8 - Map of Guiana Shield, Ministry of Foreign Affairs



Pursuing a policy of maintaining an already low rate of deforestation rate has allowed for the country to leverage its commitment to a low carbon path through the REDD+ mechanism, i.e. maintaining high forest coverage, providing carbon services in return for economic incentives. Guyana is therefore simultaneously sustainably utilising and conserving its forest and its biodiversity. It has been successful in diverting the cash incentives received for so doing to the development of alternative low-carbon industries and alternative energy solutions for traditionally high emission sectors. As part of its programme, about 600 persons were trained in REDD+ and Sustainable Forest Management (SDG Targets 15.1, 15.2, 15.5 and 15.a).

In recent activity for the sector, a National Forest Policy Statement 2018 and National Forest Plan 2018 were approved for implementation. The Policy and Plan reflect a movement away from valuing of forests for simply their wood and trees, and instead treats forests as part of our national patrimony, to be managed holistically for the goods and services that they provide. They present a set of policies and plans that address the economic, conservation, governance and capacity facets of forest management, while seeking to value the forest for more than the price of the timber (SDG Target 15.9).

Guyana has completed a Land Degradation Neutrality Target Setting Programme and would have reported twice to the United Nations Convention to Combat Desertification (UNCCD) during the period, in 2016 and 2018. The report captures data on land cover, land productivity and soil organic carbon, indicators used by UNCCD to measure land degradation. It is estimated that Guyana’s proportion of forest land degraded over total forest cover improved from 0.00031 percent, in 2015, to 0.00019 percent, in 2017. The National Action Plan to Combat Land Degradation, aligned to the UNCCD’s 10-year Strategy (2008-2018), requires the implementation of the following to comprehensively combat degradation in the context of sustainable development: land management governance and policy; education, training and awareness; knowledge information and research; evaluation and monitoring; and partnership and financing (SDG Target 15.3).

Figure 9 - Annual Rate of Deforestation from 1990-2017

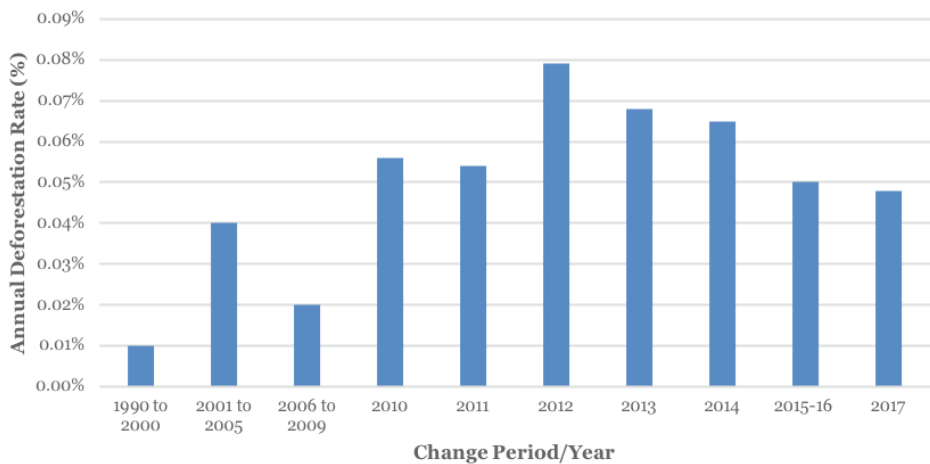
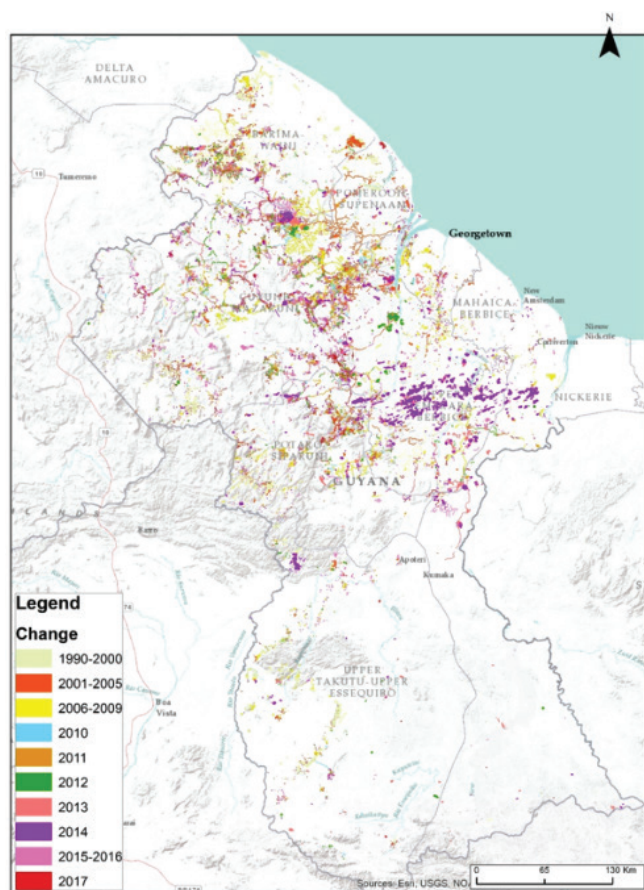


Figure 10 - Guyana's Forest Change by Reference Period



Guyana is also undertaking an initiative to address land degradation by converting degraded lands into productive use and other uses – one of the recommendations from the Land Degradation Neutrality Target Setting Programme Report. The project, Mainstreaming Sustainable Land Development and Management in the Co-operative Republic of Guyana, which is being implemented during 2018-2021, is supporting the development of a harmonised national land policy and legislative framework through the design and development of an integrated and robust spatial data infrastructure and open-data geospatial information system to support improved land administration, enhanced governance of tenure, as well as improved technical support services and mechanisms to encourage adoption of sustainable and climate-smart land use systems and management practices (SDG Targets 15.3 and 15.5).

Additionally, during the Seventeenth Session of the Committee for the Review of the Implementation of the United Nations Convention to Combat Desertification (CRIC17) held in Guyana (January 28 – 30, 2019), Guyana along with other country parties tendered their recommendations to the UNCCD to provide support to additional countries in developing their

national drought plans. These recommendations resulted in the UNCCD issuing a Second Call for interest to participate in the Drought Initiative. Guyana has since submitted a formal expression of interest to participate in the Drought Initiative and received support to develop a national drought plan, given the importance of mitigating, adapting to, and managing the effects of drought in order to enhance resilience of vulnerable populations and ecosystems (SDG Target 15.3).

Box 15.1 - Guyana's Multi-National Environmental Agreements

Guyana is a signatory and/or has ratified a number of Multi-National Environmental Agreements (MEAs). Those that address land and ecosystem management include:

- United Nations Framework Convention on Climate Change (UNFCCC)
- United Nations Convention to Combat Desertification (UNCCD)
- Convention on International Trade in Endangered Species of Fauna and Flora (CITES)
- United Nations Convention on Biological Diversity (UNCBD)
- REDD+ Agreement - the Government of the Kingdom of Norway committed to provide Guyana with US\$250 million in support of its avoided deforestation efforts over a five-year period commencing in 2009. The Agreement expired in 2015 and both countries have signaled their intentions to seek a renewal as Guyana is yet to implement all the benchmarks. (See Box 15.2)
- Latin American Network for Technical Cooperation in National Parks, Protected Areas and Wildlife
- Guiana Shield Initiative, which aims to set up a sustainable financial mechanism to conserve the ecosystems of the Guiana Shield.

In Guyana, public lands include government lands – those designated for development such as hospitals, schools, government administrative buildings, and land development schemes – and state land, which are mostly designated State Forest Area. While the Guyana Lands and Surveys Commission (GLSC) has charge of and acts as guardian of all public lands, rivers, and creeks, various other institutions share responsibility for their administration. The State Forest Estate, which is administered by the Guyana Forestry Commission (GFC) comprises 12.8 million hectares (70 percent of the

country's total forested area) and the remaining 5.5 million hectares are owned and administered by Indigenous Villages, that is titled lands, and the GLSC. The GFC administers lands under State Forests and issues leases for either timber production, conservation, research or reserve purposes or for agriculture.

Additionally, the State Forest is divided into different categories as stipulated in the National Forest Policy Statement, 2011, which provides for forest conservation and protection of biodiversity in certain categories. There are five legally recognised protected areas occupying a total of 1.8 million hectares – 8.3 percent of the country's land. Of the five, four are designated Protected Areas, three of which come under the scope of the Protected Areas Act and are managed by the Protected Areas Commission including the world-renowned Iwokrama Programme Site is managed by the Iwokrama International Centre for Rainforest Conservation and Development. The fifth is Guyana's first Community-Owned Conservation Area of Konashen,⁴⁷ which is managed by the indigenous Wai Wai people (See Box 15.1). Management plans of the protected areas are developed and implemented and supplemented by effectiveness evaluation tools internationally recognised for tracking progress of protected areas. Currently, mountain biodiversity and ecosystems are extensively covered in existing protected areas (SDG Target 15.4).

Notably, the Protected Areas Act (2011) and Wildlife Conservation and Management Act (2016) were promulgated within the past few years in recognition of the need for more specialised protection for natural resources and biodiversity. They are part of a suite of national legislation that improve the governance of the natural and physical environment and natural resources, including managing the extraction and use of wildlife. The Wildlife Conservation and Management Commission Guyana (GWCMC) undertook initiatives to assess and monitor wildlife, including a population assessment of parrots and macaws, which will allow decisions to be made on the export quotas as well as the closed season for harvest – and registration of domestic wildlife users, as a precursor to the licensing system to be introduced in the latter half of 2019 (SDG Targets 15.1 and 15.5).

Guyana has immense biodiversity, with an estimated 8,000 plant species and more than 1,000 species of terrestrial vertebrates. Of the species known to occur in Guyana, 4.5 percent of mammals, 0.4 percent of birds, 3 percent of amphibians, 3.3 percent of reptiles and 0.3 percent of

freshwater fish are threatened⁴⁸. The country's Red List Index value (2017) is 0.922⁴⁹. However, wildlife is negatively affected by vehicles on rural roads, hunting and trapping, the clearing of forest and savannahs as well as climate change, which can lead to droughts that cause migration of large animals to other areas to meet their basic needs (SDG Targets 15.1 and 15.5).

Further, Guyana is a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which is an agreement among governments to ensure that the international trade – import, export, re-export or introduction from the sea – in wildlife does not threaten their survival. As a party to CITES, Guyana is obligated to implement the provisions of the Convention through national legislation. The CITES implementing legislation of Guyana is the Wildlife Conservation and Management Act 2016. This Act provides for the prohibition of trade in violation of the Convention, penalties for such trade and for the confiscation of specimens illegally traded or possessed (SDG Target 15.7). The Guyana Wildlife Conservation and Management Commission is in the process of developing the framework for regulation of the internal trade and for establishing and implementing traceability systems which are key in ensuring that Guyana's wildlife resources are sustainably utilized. Further, such systems will greatly assist in addressing issues of poaching and trafficking.

In 2018, the Guyana Forestry Commission (GFC) commenced work on the National Forest Inventory (NFI) for Guyana. This updated NFI will inform the implementation of GSDS, which requires for effective planning to be conducted with full knowledge of the forest resource base. The NFI will provide updated information on forestry resources. Which will be the main deliverable of the national forest inventory. The GSDS further requires the value of Guyana's natural capital of which forests are a major part, to be optimised to bring maximum value for economic, environmental and social development. The NFI will enable better planning at the national, regional and community levels to enable this objective to be fulfilled.

The national forest inventory will ensure that empirical evidence is collected and reported for Guyana's forests so that the quantity and quality of forests in different parts of Guyana can be determined prior to allocation for use – whether it is timber harvesting, agriculture, mining, infrastructure or non-timber forest products. The benefits of an inventory far exceed the management of timber harvesting operations, including;

47 Annex A(3) Sustainable Management of Natural Resources, Green State Development Strategy: Vision 2040

48 National Biodiversity Strategy and Action Plan (2012-2020)

49 <http://hdr.undp.org/en/indicators/181606>

Box 15.2 - Case Study: Konashen Community-Owned Conservation Area



Guyana's first Community Owned Conservation Area is the largest protected area in the country, covering about 3 percent of the land area. It is home to the Wai Wai people, and is the only indigenous-owned territory in the protected area system.

The Wai Wai of the Konashen District in the south of Guyana received title to the land in 2004 and partnered with Conservation International and the government to have the entire area established as a protected area. This will effectively bring more than one million acres of rainforest under sustainable management while ensuring the continued development for the Wai Wai people and maintenance of their traditional way of life. The community's role as owners and managers of the area represents a new and innovative approach to conservation in Guyana.

The Wai Wai are dependent on this area for the survival of their people and traditional way of life and are seeking ways to deal with new and encroaching threats from mining, logging and the wildlife trade. The Wai Wais have already stopped trading in wildlife, a practice previously done solely for economic survival and are now looking to conservation and the benefits of maintaining their biodiversity to provide for family and economic development.

The conservation of this area also allows for the preservation of the home of several important species such as the Harpy Eagle (*Harpia harpyja*), Jaguar (*Panthera onca*), and Giant River Otter (*Pteronura brasiliensis*). The Community Owned Conservation Area now expands the area of the Guiana shield that has been placed under formal protection and expands the corridor by linking directly into the Para State Protected Area in Brazil.

Conservation International is assisting with capacity development in conservation and development planning and community leadership. Diverse livelihoods are being facilitated: community members recently completed training as qualified rangers and para-biologists, and a community-led training program has revitalised their traditional craft enterprise. Also, opportunities are being developed to create partnerships for research and eco-tourism development.

Source: www.conservation.org, protectedareatrust.org.gy

- Stratification of Guyana's forests based on the quantity and quality of forest resources in different areas, resulting in efficient zonation of forests based on intended use (timber, mining, NTFP etc.), maximising the multi-purpose potential of Guyana's forests
- Identification of areas for conservation and protection; and provide baseline data for understanding the forest dynamics in these areas.
- Allow for efficient biological and ecological research by providing preliminary baseline data on forest species, composition and distribution.
- Integration of forest inventories with GIS/Remote Sensing technology, using empirical national forest data to design specific technologies for the monitoring of Guyana's forests.
- Provide a reference dataset on forest resources for long-term monitoring and decision-making, including creating historical records of forest use for future generations.

NFI will significantly improve the way forests are allocated in Guyana for various land use options; and enable management frameworks that support economic, social and environmental benefits.

Challenges and Emerging Issues and Addressing the Way Forward

Recognising the competing nature of land-use activities such as forestry, mining, agriculture, human settlements and infrastructure as well as conservation for ecosystem services, co-ordination and planning for the sustainable management of terrestrial ecosystems and protection of biodiversity becomes challenging. Revenues from oil present a distinctive advantage to Guyana with its simultaneously - first in class natural heritage per capita and oil production rate per capita, making it a great candidate to demonstrate to the world the possibilities of developing a green future that is built through the short-term revenue flows from oil.

While there is a National Land Use Plan (2011), the absence of a comprehensive National Land Use Policy and Planning System is one of the main reasons for land-use conflicts. Overlapping function, legislation and authority conflicts between separate units and institutions with respect to land use planning is not conducive for integrated land management. In addition, insufficient information leads to poor planning and coordination which can result in various entities issuing land leases for different purposes. Specifically, this can result in the lease of the same land by different agencies to different concessionaires in different sectors, among other challenges. Vision 2040 identifies integrated land management as critical to facilitating sustainable development as land is one of the most important inputs to economic activity and growth. To this end, Guyana will continue to pursue reforms to improve land management across all sectors such that ecosystems and biodiversity are more effectively protected while the country pursues sustainable growth initiatives.

A practical step towards enhancing sustainable management of natural resources has been the policy to devolve decision making to regions and to indigenous village councils. Rights holders and people who are more directly connected to their lands, when provided with the responsibility, capacity and authority to manage these lands, have a better chance of managing these lands sustainably. Therefore, the process to develop Plans of Action for Regional Development (PARD) and Village Improvement Plans under the Sustainable Villages Policy are important steps that will have medium to long term impacts on the way in which natural resources are conserved and sustainably managed.

Complementary to land management and overall ecosystems management, is the prevalence of appropriate research, data and analysis to inform decision making and protection strategies. For example, assessments of invasive species in Guyana in 2011 and 2016 showed that the number of alien invasive species fell from 31 to 21⁵⁰. However, the precise impacts of these species are not well understood as there has been no focused study on invasive species in Guyana. Consequently, there is need to conduct more research and develop strategies to prevent the introduction and reduce the impact of invasive alien species on the country's land and water ecosystems (SDG Target 15.8).

Another critical area for research and analysis is the potential impact of infrastructural development into the hinterland on ecosystems. While Guyana has been able to maintain historically low rates of deforestation, the situation is likely to become challenging with new and upgraded hinterlands roads identified for development as Vision 2040 is to improve connectivity via roads between the hinterland and coast. These connections will open new opportunities and marketing alternatives for residents in remote regions. However, comprehensive strategic, sectoral and project-specific environmental assessments must be completed, to determine the possible impacts of infrastructural development on the ecosystems, especially those in the hinterland. These ecosystems must be monitored to guard against negative environmental impacts and ensure they are maintained, while at the same time leveraging potential economic opportunities (SDG Targets 15.1, 15.2, 15.5 and 15.9).

Additionally, legislation addressing mining on forest lands is essential for reducing the impact of this driver of deforestation on forest cover in Guyana, since gold mining – a high-earning industry – is the largest driver of deforestation. In the case of the Mining Policy and Action Plan, the sector is facing the challenge of the economic viability of transitioning to the use of mercury-free technologies. More stakeholder and public engagements are required, especially with miners so as to get their buy-in for transition to new (mercury-free) technologies. Further, Conservation International is partnering with Guyana to pilot a sustainable landscapes approach built on three pillars: multistakeholder engagement over the landscape's future; land use planning (at the landscape level) using ecologically driven parameters as the base map (often we use economic or popn distribution as the base maps, but this then creates problems as the only thing that is fixed; and finally simple strategic assessment system to determine initial feasibility of a proposed intervention (SDG Target 15.5).

50 State of the Environment Report 2017

While new and sustainable technologies and practices are critical to mining, it is required across all industries to ensure Guyana's natural capital is effectively managed. Guyana's forests are characterised by high species diversity, and the main commercial species, for example, greenheart and purpleheart, mainly have a low standing volume per unit area. Guyana has been and continues to promote the practice of reduced impact logging, however the country recognises the need for forest inventory to effectively implement this measure. In 2018, the country completed the pilot phase of a National Forest Inventory whereby methodologies were tested and subsequent to this a phased roll-out has commenced. Guyana will encourage increased Forest Stewardship Certification among concessionaires. Currently, only the Iwokrama concession is certified. Further, at the end of 2018, the Government of Guyana initialled the Voluntary Partnership Agreement with the European Union, entering into an agreement for the implementation of the EU Forest Law Enforcement Governance and Trade for agreed timber products (SDG Target 15.2).

Another challenge for the forestry sector and the pursuit of low-carbon development is one of building capacity particularly for sustained monitoring and reporting to meet national and international requirements. Guyana endeavours to empower existing institutions that may already have capacities in similar areas and to advance stakeholder participation in an attempt to ensure that monitoring efforts are more efficient and cost effective (SDG Target 15.2).

The effective uptake of sustainable practices relies not only on prominent market actors but all stakeholders. Unemployment and poverty in the hinterland often results in the residents engaging in wildlife trading and/or fishing at semi-commercial scales without sufficient knowledge on sustainable practices and the guidance of species-specific management plans. In the latter half of 2019, Guyana will be implementing a permit system for the legal transport of wildlife as the country's borders are not well monitored which allows foreign nationals from neighbouring countries or even further away to enter the country and illegally extract and export wild life. As such, public education and awareness are essential in not only promulgating sustainability measures towards the effective management of terrestrial ecosystems but also to ensure that every citizen comprehends the importance of Guyana's rich biodiversity and supports the country in its fight against illegal wildlife trade. The government has provided support for curriculum reform to ensure comprehensive environmental coverage at primary and secondary levels, and has begun development of a postsecondary environmental education module. The main beneficiaries will be grades 1-6 pupils, technical institutions and tertiary institutions across Guyana.



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More needs to be done to make the educational offering within regions more relevant to each regions so that matriculants are better positioned to contribute to the development of their communities and regions (SDG Target 15.7).

Lessons Learned

Given the multi-sectoral nature of managing life on land, coordination and collaboration across sectors is paramount to ensure that conflicts between the various land administrators are minimised. These conflicts contribute towards the unmanaged, unsustainable degradation of land. Additionally, coordination at the policy level is required to ensure that overlaps are minimised, clear lines of responsibilities delineated and collaboration is effectively institutionalised. In some instances, this requires legislative reforms to ensure appropriate enforcement.

Emphasis on the value chains that exist between the natural resource, purveyor and end user is also critical, to address bottlenecks that exist. Through value chain assessments the roles and responsibilities of intermediaries and external stakeholders can be better determined and managed to achieve the best results for the rights holders and end users, while reducing inefficiency and poorly designed investments.

As with all other SDGs, data systems strengthening continue to be a recurring theme. Strong research capacities which generate data allow agencies to better target their interventions, whether it be to identify causes of biodiversity

loss or to generate mineral maps to allow for better planning. This becomes even more important as infrastructural development accelerates to allow for better connectivity and access to the hinterland areas, as this would involve construction works across various ecosystems. Strong capacity to undertake and oversee environmental impact assessments validated against national data systems is also necessary.

Finally, inclusivity also features in the effective management of ecosystems, especially in Guyana's case where human and financial resources are limited and land space is aplenty. This means that significant education programmes need to be undertaken and sustained to ensure that sustainable practices

in mining, forestry and even construction are adopted to minimise the impact of human activity. This also entails public awareness programmes that continually promote behavioural change such that every citizen acts more responsibly in the care of Guyana's environment. Support from the public is surely recognised as necessary to ensure enforcement is improved and illegal activities deterred. Involvement of the private sector in the design of initiatives is also critical, particularly prioritising the private sector operators that have a direct relationship to the value chain. Having regard to their important role in economic development and job creation, their early involvement may also help to increase efficiency in service delivery and enhance successful results.

Box 15.3 - Guyana and REDD+

Guyana is one of the first countries in the world to implement national scale action on REDD+ (Reduced Emissions from Deforestation and Forest Degradation). REDD+ is an international mechanism that encourages developing countries to receive financial support to reduce greenhouse gas emissions and regulate global climate through the conservation of forests and biodiversity and sustainable management of forests, which enhances of forest carbon stocks.

The main purpose of REDD+ is to mitigate global climate change, whilst providing socio-economic benefits (for example, improved livelihoods, stronger forest governance) to participating countries. Guyana's participation in the REDD+ programme was driven by the desire for a strategy that will allow for forest protection while simultaneously enhancing the contributions of forestry to national development.

Under the Agreement, the Government of the Kingdom of Norway committed to provide Guyana with US\$250 million in support of its avoided deforestation efforts over a five-year period commencing in 2009 and maintained annual deforestation at a rate lower than 0.056 percent. The Agreement stipulates, among others, for protected areas to be created and established in close collaboration with indigenous communities.

The REDD+ Secretariat was created as an operational Unit of the Guyana Forestry Commission to oversee the implementation of the technical aspects of REDD+ and more specifically, the development and operation of the Monitoring Reporting and Verification System. To this end the Guyana REDD+ Investment Fund (GRIF) was established and managed by the Project Management Office within the Ministry of the Presidency. The GRIF is temporary and is channelling REDD-plus payments from Norway and other potential contributors. Work is being undertaken to allow for a more flexible, fit-for-purpose financial mechanism that would ensure the application of internationally recognized safeguards while allowing for stronger Guyanese ownership.



SUSTAINABLE DEVELOPMENT GOAL 16:

PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

Context and Key Achievements

The GSDS - Vision 2040 places strong emphasis on ensuring that *"a deserving population enjoys the freedom to shape their own economic and social futures and to build cohesive communities."* This freedom is guaranteed through the rule of law which rests on the foundation of an independent and effective judiciary as well as law enforcement systems that partner with communities and embody professionalism and competence. The achievement of this goal requires good governance – including transparency, accountability, public participation and effective institutions – and peace and security for citizens, businesses and borders – including comprehensive legislation, respect for the rule of law and justice for all.

The Constitution of the Co-operative Republic of Guyana is the fundamental law of the land and provides the overarching framework for citizen participation in the state. The current constitution is based on the 1980 Constitution and reforms completed in 2000 and enacted in 2001 and 2003. However, Parliament instituted a Standing Committee for Constitutional Reform in 2001 in the National Assembly with the mandate to continuously review the performance of the Constitution and make recommendations for further improvement.

Aside from the Constitution, Guyana has signed onto and ratified several international conventions and treaties including the Convention on the Elimination of all Forms of Discrimination Against Women, the Belém do Pará Convention, the Protection and Promotion of the Diversity of Cultural Expressions, the Caribbean Disaster Emergency Response Agency (CDERA) with the Caribbean Disaster Emergency Management Agency (CDEMA), and the Convention against Trans-National Organised Crime. At the national level, Guyana has passed legislation, specifically, to address the issue of juvenile justice, providing for and promoting non-custodian and remedial measures for young persons who break the law.

A hallmark of good governance is improved transparency which allows for ease of access to pertinent information by the average citizen. In this vein, Guyana publishes information on government programmes and activities on the national information agency's media, recognising that it is a fundamental right of all citizens as it promotes accountability and citizen participation in the state. Guyana's Access to Information Act was promulgated in 2011 and

brought into operational effect in 2013 with the appointment of the Commissioner of Information (SDG Target 16.10). Transparency and accountability are also reinforced by the sharing of legislative information on Parliament's media as well as provision of access to Parliamentary resources for all citizens. This increases citizens' awareness of the work of the Legislature. Additionally, targetted emphasis is placed on the youth through the hosting of the annual Youth Parliament, to increase knowledge on the operations of the National Assembly.

Guyana continues to upgrade its legal landscape to cater for the ever-growing challenges of the 21st century, the country also endeavours to strengthen its institutions to effectively provide for a safe and secure country and to promote good governance. With regard to the latter, the authorities have undertaken reforms in public sector and subscribed to key diagnostic tools in an effort to ensure effective management. More recent reforms have been documented in the publication of – the Budget Transparency Action Plan and the Public Financial Management (PFM) Action Plan on the MoF's websites – which outline some of the work authorities are undertaking to ensure the efficacy and accountability of public institutions (SDG Target 16.6) within the area of Public Financial Management.

Overall, Guyana's institutional and legal framework is functioning, but is heavily centralised. There is, however, a shift in the local government agenda from a centralised approach to a decentralised approach, with the main focal areas being empowerment and capacity building in all local organs. While the ten administrative regions of Guyana are overseen by Regional Democratic Councils, elected as part of the pentannual general elections, local democratic organs (LDOs) are elected every three years. LDOs include neighbourhood democratic councils (NDCs), and municipalities. Since 2015, four new municipalities have been established, namely Bartica, Lethem, Mabaruma and Mahdia, and it is intended to establish towns in all regions. Unfortunately, since the early 1990s, local government elections, which effect municipalities and NDCs have only been held once. It was only since 2015 that local government elections were regularised again, with two cycles having been successfully completed. The functioning of these LDOs is imperative to ensuring inclusive decision-making and governance (SDG Target 16.7).

Ensuring peace and safety in Guyana, in addition to being founded on a solid legal and inclusive framework, is also contingent on understanding the unique challenges that the country's geography and socioeconomic context pose. Policing the country's borders, as well as its vast forested areas, is a task that challenges human, technological and financial resources. Guyana has been branded as an occasional transshipment location for narcotics from South America traveling to North America and other parts of the world. This is a scourge which has a direct impact on its level of crime, violence, and corrupt activities that are designed to mar the country's image. Nonetheless, there is some relevant legislation in place, including anti-money laundering legislation, but this requires much resources to allow for more effective implementation.

The Anti-Money Laundering and Countering the Financing of Terrorism (Amendment) Act 2015 and several other Amendments, thereafter, continue to fulfil the national mandate of combating corruption and increasing transparency. The Attorney General's Chambers, in several regional outreaches across Guyana, particularly in Regions 1, 2, 3, 4, 5, 7, 9 and 10, sensitised the public about the danger of money laundering and provided advice on safeguarding the economy (SDG Target 16.a). The State Asset Recovery Act 2017 provides for the recovery of stolen state assets by public officials. There are several on-going investigations by the State Assets Recovery Agency with several matters in court (SDG Target 16.4). The Witness Protection Act 2018 and Protected Disclosure Act 2017 are also anti-corruption legislation but are not in force as yet. As a result of these collective efforts, among others, Guyana was removed from the European Commissions' Money Laundering Blacklist in November, 2017. These pieces of legislation collectively assist in tackling corruption, increasing access to justice and encourage a safer investment climate. This is reflected in the Millennium Challenge Corporation (MCC) indicators for Guyana where political rights, civil liberties, and freedom of information have been deemed as being above average.

Additionally, Guyana has undertaken several other initiatives at the global and regional levels to signal its commitment to fighting corruption. Consequently, it is a signatory to the 1997 Inter-American Convention Against Corruption and the 2008 United Nations Convention Against Corruption. These agreements bind the country to obligations to prevent and eliminate all forms of corruption. Further, there has been an improvement in Guyana's ranking in Transparency International's Corruption Perception Index placing it at 93 out of 180 countries in 2018, which is a gain of 29 spots since 2015.

Guyana's geopolitical situation further compounds peace and safety, specifically in light of the unstable socio-political climate of one of its neighbours, which has resulted in large flows of foreign nationals from that country to the rest of South America. Guyana has been working towards resolving the Venezuelan controversy through the International Court of Justice (ICJ) so as to reach a peaceful resolution and final settlement. It has also invested, significantly, in bilateral, regional and multilateral fora, and maintains that the principles found in the United Nations Charter, especially: non-interference in the internal affairs of States; peaceful settlement of disputes; respect for international law, treaties and boundaries; and good neighbourliness among States should govern their relationship.

Trafficking in Persons (TIP) is a growing concern for Guyana as this is highlighted in the increased number of alleged victims being increased from 59 in 2015 to 243 in 2018. Through a multi-sectorial approach, there has been the joint implementation of national strategies to combat trafficking in persons and to date, seventeen (17) individuals have been charged, three (3) convicted for trafficking in persons and three (3) convicted for other crimes arising from trafficking in persons' investigations. Moreover, according to the United States Department of State 2018 TIP Report, Guyana has maintained its ranking as a Tier 1 country. In 2018, 162 persons or 66.7 percent of the alleged TIP victims were Venezuelans. Authorities have developed the 2019 -2020 Action Plan for the Prevention and Response to TIP in an effort to bring Guyana closer into compliance with minimum standards for the elimination of TIP (SDG Target 16.1).

Notwithstanding the challenges that Guyana faces, there has been some reduction in the incidence of crime. For example, in December 2017, the Guyana Police Force recorded a 10 percent decrease in serious crimes when compared to 2016. Guyana's global ranking on the Global Peace Index (GPI) also improved from 92, in 2015, to 82, in 2018, evidenced by a 26.8 percent reduction in intentional homicide per 100,000 population. Youth entrepreneurship and empowerment programmes are in place to alleviate and pre-empt the situation and include technical and entrepreneurship training. A target-programme implemented between 2015 and 2020 catered for 1,200 at-risk youths in 20 identified communities which included 200 training recipients receiving financial grants of up to G\$300,000 as start-up capital with the support of the Small Business Bureau. Job readiness and job placement support services are established to provide training and support in the areas of work ethics, curriculum vitae preparation, job interview skills and matching grandaunts skills with current vacancies on the job market. In addition, under this programme, several workshops aimed at

improving behaviours towards non-violent conflict resolution have been conducted for young adults and youths of both genders covering topics, such as parenting education, conflict resolution and domestic violence. The evaluation of the effectiveness of these programmes is slated for 2020; a work programme and tracer studies are needed to support this analysis.

To enhance sustainability and success of community security intervention prevention measures such as empowerment and training initiatives, engagement of local non-governmental, governmental and private sector organisations was utilised to support community-based activities. Community Action Councils (CACs) comprising community members were strategically established and tasked to oversee and participate in the project execution within their communities⁵¹. Additionally, over 220 Community Policing Groups, consisting over 4,200 active members, have been established across the country, to assist the Guyana Police Force as far as possible, in the detection and suppression of crime, by undertaking joint-patrols with officers of the Guyana Police Force and the Guyana Defence Force. The Community Policing Groups have conducted 9,182 patrols, gathered intelligence and have contributed to 262 arrests in 2018. To date, since Guyana signed onto the SDGs, 23 Community Policing Groups were formulated in the hinterland in Regions 1, 7 and 9. Though, varying and hard-to-traverse terrain means that joint patrols must sometimes be carried out on foot and, there may be limited or, in some instances, no means of communication via telephone.

Evidenced by the implementation of preventative measures such as community policing and skills training, Guyana has pivoted its security sector to being more people-focussed. Moving beyond prevention, further areas of importance include reducing recidivism and promoting alternative sentencing through institutional strengthening. These efforts have been focussed on the provision of legal aid, training for police prosecutors, the magistracy and probation services, implementing a restorative justice programme, and strengthening the Law Reform Commission. The legal aid programme, in particular, provides assistance to persons accused of minor, non-violent offences currently in pre-trial detention. The legal aid programme comprises a team of

lawyers and paralegals who seek the dismissal of charges, arranging diversion where appropriate or arguing for bail and, generally, avoiding procedural delays.

In strengthening police prosecutions, training focuses on enhancing the Office of the Director of Public Prosecution (DPP) and police prosecutors' capacity to prepare cases for trial and to prosecute. Capacity building of the magistracy seeks to promote the proactive use of alternative sentencing in lieu of pre-trial detention and imprisonment, such as affording probation to non-violent offenders. Probation services strengthening will serve to improve follow-up on sentences handed down, during and after incarceration, to better ensure that rehabilitation is effective and reoffending is minimised. Initiatives under the restorative justice programme are also aimed at the promotion of alternative sentencing, with a specific focus on mediation and remedial sentencing. These recently implemented non-legislative programmes aim to reduce recidivism, and the burden on the prison systems and the national treasury, and afford offenders an opportunity to reform so that they may positively contribute to society.

Response measures to crime and breaches of public safety have also continually been prioritised through the improvement of the disciplinary services. Significant expansion and upgrades were made to the Guyana Prison Service Headquarters facility in Georgetown and the Timehri Prison. However, an impactful event in Guyana's recent history is the razing of the Georgetown Prison – the central prison facility in the country – in 2017. The destruction of the Prison has caused displacement of inmates, overcrowding in substandard facilities, human capital constraints and an added and unforeseen expenditure pressure on the national purse. Regardless, the authorities forged ahead to expand and upgrade the existing prison facility at Mazaruni, and reconstruct a new facility in Georgetown and upgrade the Lusignan Prison and Holding Bay facility.

To support the protection of life and property from destruction by fires, three new Fire Stations were constructed within three new towns in hinterland communities of Guyana – Lethem, Mahadia and Mabaruma. The quality of the country's firefighting capabilities was enhanced with the construction of a Fire Fighting Simulator training facility constructed at Leonora. As the Prison Service and the Fire Service continue to undergo much needed improvements, so too has the Guyana Police Force. The Force has benefitted from the rehabilitation of 12 Police Stations, designed to promote a victim-friendly policing service during investigations into sensitive matters such as domestic violence, evidence collection and also to conduct identification parades. Additionally, training of 138 police officers in criminal and forensic investigation techniques

51 The community Action Councils (CACs) were established to oversee and support the implementation of activities in their respective communities. The CACs are guided by a Charter, monthly meetings are held and minutes are recorded and elections are held annually. As of June 6th, 2019, the establishment and operationalisation of the CACs have aided in community participation, hence, reducing the risk of community reluctance to participate in project activities. The CACs were responsible in the design of rapid impact projects through community consultations and benefited from training in the areas of proposal writing, revenue generation, planning and designing of community based projects.

as well as community engagements were undertaken. The Police's Crime and Social Observatory has also been strengthened through the recruitment of three (3) Data Analysts and one (1) Gender Demographic Data Specialist.

Another significant achievement is the progress being made by the Force towards the strengthening of institutional capacity to support evidence-based decision-making, and policies and programmes, such as the development of the Crime Information Management System (CIMS) being pursued under the regional CariSECURE programme. Provision has been made under this initiative for the collection and analysis of disaggregated citizen security data. The Force has also pursued a study of crime and violence within indigenous communities and the conduct of a Safe Neighbourhood Survey.

According to the 2017 Safe Neighbourhood Survey (SNS) the personal crime victimisation index which measures the extent of experiences with both non-violent and violent crimes vis-à-vis beatings, injuries with a sharp weapon or firearm, thefts, murders, kidnapping or death threats, mistreatments by police and sexual assault behaviours was at 16.2 percent in 2017. The fear index capturing respondents' general views on places where they feel safe was equivalent to 58.1. At the regional level, Regions 4, 5 and 8 had index scores above the national average indicating that there is greater concern for personal security within these regions. As it relates to the effectiveness of the police in preventing crime, 67.4 percent of respondents are in agreement that the police do a good job of preventing crime. Further, 46.8 percent of respondents believe that the police respond promptly to non-emergency calls for assistance and 56.7 percent believe that they respond promptly to emergency calls for assistance. Further, 62.8 percent of respondents believe that the police are helpful to victims of crime and 66.5 percent believe that they are generally doing a good job dealing with residents in a fair and courteous manner.

More than 50 percent of respondents are against the view that a person has the right to kill to defend his/her family; that carrying a weapon makes a person safer or that people have the right to take justice into their own hands if the authorities fail. However, over 60 percent of respondents believe that a military presence is necessary to control violence in the country. Most respondents (approximately 48 percent) see unemployment and the prevalence of drugs as the leading causes of crime in Guyana. With respect to capacity for resolving conflicts, 94 percent of respondents indicated that knowing how to control their temper and staying out of fights, whether sometimes, almost always or always as the main solution. Further, 1.4 percent of female respondents had

experienced sexual assault. Approximately 48 percent were repeat victims. This form of crime victimisation is higher in Regions 9 and Region 1. Generally, there is under-reporting of such offences as 64.3 percent of those who experienced sexual offences victimisation did not report it.

In recognising the sensitive nature of certain crimes, in particular sexual and domestic violence offences, a Sexual Offences and Domestic Violence Policy Unit was established in October 2016. This unit undertakes to ensure the provision of quality, comprehensive and responsive services for victims of domestic violence and their dependents; and initiate actions that hold perpetrators accountable for their behaviours (SDG Target 16.b).

Challenges, Emerging Issues and Addressing the Way Forward

Though, Guyana has been making some strides to improve public safety, the centralisation and concentration of services on the coast coupled with the high cost of accessing remote riverine and hinterland regions, impedes the effective expansion of security services. Response times and communication are hampered in areas difficult to access due to the limited availability of resources. Overall, citizen access to justice and quality of services is not uniformed throughout the country. This is a cross-cutting challenge facing most sectors for which catalytic investments in transport infrastructure, discussed throughout this report, are required.

Additionally, financing continues to hamper the development of the security sector as with most sectors. Specifically, local government organs, which provide for citizen participation and empowerment, are under-resourced and not as effective as they need to be. The lapse of over two decades between local government elections caused a significant deterioration in the quality of local governance, especially among NDCs. However, the capacity of local authorities is being rebuilt with support of the Ministry of Communities and the Local Government Commission, though additional resources are needed to scale up much needed institutional strengthening across NDCs and municipalities. Other resource allocation concerns of the security services in Guyana also come from the influx of foreign nationals from neighbouring countries that is being observed. Guyana has had to develop policies on these matters, in collaboration with other agencies, for implementation through its foreign service.

In the evaluation of prevention measures, such as skills training and youth empowerment, good data is paramount. The sector requires strong data systems in order to

empirically assess the effectiveness and sustainability of these interventions. Assessment of the supporting mechanisms is required to effectively plan and coordinate business development services and credit schemes, and adult and continuing educational programmes. Further, as the Police Force produces mainly administrative data, this leaves a gap in the detection of unreported crimes for which surveys may be required. While support has been received to conduct a Safe Neighbourhood Survey (2017), the finalisation of this report is delayed and systems need to be put in place to ensure continuous reporting on citizen experiences as this is critical to effective programming and policy. The plan to address these shortcomings lies within the National Strategy for the Development of the National Statistical System led by the Bureau of Statistics. However, significant support is required to implement this plan and accelerate upgrading of data systems across all sectors.

Aside from financing, data and infrastructure challenges, Guyana's legal framework is based on the 1980 Constitution, with the most recent significant revisions made in the early 2000s, and provides for equality among citizens and the protection of basic civil rights including freedom of assembly, expression, and religion. However, the Constitution of the Co-operative Republic of Guyana requires continuous review in order to effectively address some of the challenges Guyana

faces today and has faced over the last two decades. In partnership with the University of Guyana (UG) and UNDP, Guyana has embarked on a Constitutional Education initiative that is seeking to provide stimulus to constitutional reform by conducting research and public education that will identify the key points for future debate.

An additional legal constraint is the lack of an overarching anti-corruption agency or anti-corruption law. Guyana's anti-corruption architecture is dispersed across several laws and institutions, some of which are based on the Constitution. Concern over corruption at all levels of government has been a consistent theme in public policy discussions and with civil society for some time.



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Lessons Learned

Guyana recognises that peace and security, at least within the country, rests on the behaviours of its peoples. Increased inclusivity, education and cultural leadership are required to effect the participation and change required of the public. Particularly, education, both formal and informal, will allow every individual an opportunity to generate their own livelihood and reduce the temptation of resorting to illegal activities. It is also critical to promoting and sustaining behavioural change and reducing the incidence of domestic and other forms of violence. Stimulating and maintaining public participation in the sector will also serve to incentivise the acceleration of overdue legislative reforms. For peace, security and accountability, inclusiveness has the potential to be catalytic.

Data for decision-making continues to be highlighted across sectors. Particularly for peace and security, it is critical to validate administrative data against survey data. For example, unlike examining expenditure data, where nearly all central government transactions are recorded in an electronic system as a requirement, reporting crime and victimisation is difficult to mandate and may be recorded. As such, administrative data alone will not allow for a comprehensiveness analysis of the state of security in the country. Robust data systems, including methodologies, continue to feature as key requirement of informed and effective planning for development.

Table 15 - Select Indicators for Violence 2015-2018, Ministry of Public Security

Target	Indicator	2015	2016	2017	2018
16.1	Number of victims of intentional homicide per 100,000 population	19.39	18.37	14.78	14.19
	Male	15.74	17.07	12.08	10.99
	Female	3.64	1.29	2.70	3.20
16.2	Number of victims of human trafficking per 100,000 population	7.7	12.7	6.4	28.3
16.2	Proportion of young women and men aged 18–29 years who experienced sexual violence by age 18	4	2.1	2.57	19.56



SUSTAINABLE DEVELOPMENT GOAL 17:

STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALISE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Context and Key Achievements

In order to effectively deliver the promises made in Agenda 2030, it is recognised that

- each country must have the appropriate financing easily available to execute the requisite programmes and strategies;
- science, technology and innovation are required in order to derive productivity gains and achieve more sustainable levels of production and consumption;
- capacity building must be on par with the requirements of the development trajectory of each country. Recognising that countries on their own, especially least developed countries, may not be able to sufficiently generate the momentum in each of the aforementioned areas, partnerships – international and domestic – become crucial.
- Trade – MFA to add text on Doha and international position on this
- Policy and Institutional coherence are needed within and between countries, and among development partners.

Guyana has long struggled with the reality of an inadequate financing for its developmental needs. Successive budgets over the last decades have sought to prioritise poverty alleviation by focussing on the social sector while juggling the challenge of addressing a huge infrastructure deficit that leaves the country's internal communication and connectivity costly at best and non-existent in many instances. With a relatively nascent private sector and population of under ¾ million people the opportunities for expansive domestic taxation is constrained. Key partnerships within multilateral and bilateral engagements, access to concessional financing, ongoing negotiations of debt relief and restructuring and unwavering commitment to prudent fiscal stance has allowed the maintenance of a debt sustainable position for well over a decade and seen positive growth performance consistently over the same period.

Guyana has successfully established and maintained relations with a variety of international partners, bilateral and multilateral, negotiating assistance, including concessional financing, to fill its developmental gaps. Partners include: the United Nations System, the Inter-American Development Bank, the Kingdom of Norway, the Caribbean Development Bank, the World Bank, the Commonwealth Secretariat, the Japan International Cooperation Agency, the Exim Bank

of India, the Exim Bank of China, the German Agency for International Development, the United States Agency for International Development, to name a few (SDG Target 17.3, 17.9 and 17.18).

Guyana is wary of being graduated to upper-middle income status. Concessional financing has become even more difficult to access, especially considering that the overall volume of this financing has been declining. Guyana has argued that graduation criteria must not be based solely on per capita GDP, which can present an unrealistic picture of people's lives given the multi-dimensional nature of development and inequality. Accessing increased development assistance is required to facilitate the implementation of the GSDS. Recognising its role in supporting the achievement of the SDGs, the World Bank has been able to quadruple its allocation of resources to Guyana through the International Development Association replenishment, IDA18, financing cycle July 1, 2017 to June 30, 2020, from US\$20 million to approximately US\$90 million (SDG Targets 17.1, 17.3 and 17.6).

The consideration of new revenue-generating measures is made in the context of affordability by the citizens, and is paced accordingly. Over the last ten years, an average of 72 percent of the National Budget was financed utilising domestic resources from tax and non-tax revenue streams. The proportion of the Budget financed by Central Government revenue increased from 73.3 percent in 2015 to 81.1 percent in 2018. Approximately 87 percent of the total central government revenue in 2015 was derived from taxes, and this grew to about 91 percent in 2018. The improved contribution of taxes to overall revenue was the result of continuous efforts to enhance tax administration and revenue generation, which led to an increase in total Central Government Revenue as a percentage of GDP from 42 percent in 2015 to 51.5 percent in 2018 (SDG Target 17.1).

In 2015, a Tax Reform Committee was established to undertake a comprehensive assessment and provide recommendations to government in recognition of the need to further improve the tax system. Additionally, in collaboration with the International Monetary Fund, an assessment of Guyana's tax system was completed in 2017, using the Tax Administration Diagnostic Assessment Tool (TADAT). The results of the TADAT provided insight on the good practices as well as the weaknesses of the Revenue Authority. It must be noted that many of the recent

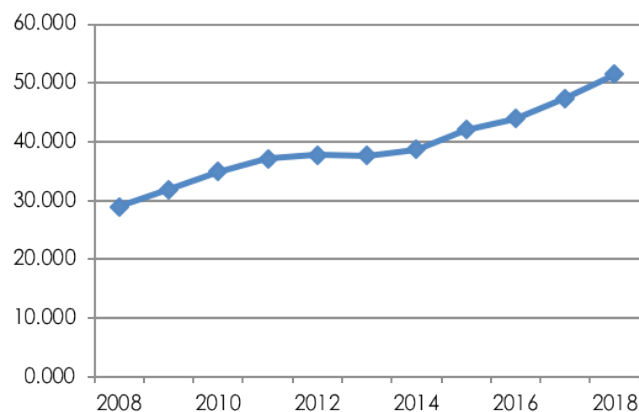
improvements and reforms in the tax system undertaken by the Guyana Revenue Authority (GRA) have largely been in response to the recommendations of the report presented by the Reform Committee. Initiatives undertaken to improve tax policies and tax administration included: expansion of the tax net; institutionalisation of e-filing and, increased voluntary compliance (SDG Target 17.1).

complementing the return filing process. The Authority also implemented the first tax amnesty programme to allow delinquent taxpayers, both individual and corporate, to file outstanding taxes. This programme resulted in the collection of over G\$7 billion in arrears. Another notable reform in 2018 was the piloting of the Automated System for Customs Data (ASYCUDA) an improvement over an earlier TRIPS software, which allows for improved and paperless customs transactions (SDG Target 17.1).

Table 16 - Tax Revenue Composition (G\$'000), Ministry of Finance, National Budget Speech

Revenue Category	2015	2016	2017	2018
Income Taxes	54,500	60,624	67,748	78,235
Value Added and Excise Taxes	68,807	67,507	76,014	87,951
Trade Taxes	14,027	16,948	18,497	21,986
Other	5,563	6,666	8,891	10,341
TOTAL TAX REVENUE	142,896	151,746	171,150	198,512

Figure 11 - Guyana's Domestic Revenue as a Percentage of GDP, 2008-2018 (Ministry of Finance, Central Government Estimates)



Additionally, a Large Taxpayers Unit (LTU) was established in 2017, by GRA, to provide service to large corporate entities, who account for approximately 80 percent of overall revenue collection. Further, tax offices were established outside of the capital city to decentralise service delivery, increase compliance and therefore minimise revenue leakages. Some of the other changes made to enhance revenues and expand the tax net included: increases to travel taxes, as well as changes to the value-added tax (VAT) regime, reducing the rate, while adding electricity and water, in an effort to promote responsible consumption and conservancy (SDG Target 17.1). In 2018, GRA introduced e-services to taxpayers, allowing individuals to file their returns via the internet, thereby

In preparation for oil and gas production in 2020, the Guyana Revenue Authority has begun putting mechanisms in place to ensure appropriate revenues are paid by producers. To this end, an Oil and Gas Unit was established within the Large Taxpayers Unit of the Authority. With the growth and development expected over the next few years, Guyana is committed to improving its capacity for effective tax administration in an effort to maximise the revenue required to finance urgently needed improvements in education, healthcare and infrastructure, as well as public security and other basic services for the citizenry (SDG Target 17.1).

An important financing mechanism for development objectives outlined in the national development plan will be the Natural Resource Fund (est. 2019). The Fund, once operationalised, will provide for some amount of front-loaded spending, though it contains rules to ensure that, in the long-term, withdrawals for public spending become sustainable and relatively predictable. Additionally, the withdrawal rules require the explicit consideration of macro-fiscal sustainability when determining the recommended maximum amounts that can be drawn down from the Fund. It should be noted that the Fund is expected to take some time before it accumulates significant capital, allowing for sustainable withdrawals (SDG Targets 17.1 and 17.3).

The Natural Resource Fund, in pursuing its objectives of intergenerational savings and stabilisation, will also retain amounts to be invested in overseas financial assets de-linked from the industry/sector. A portion will also be required to

be invested in very safe assets (as defined in the Act), such as sovereign bonds. The investments of the Fund in financial markets will be made in accordance with an investment mandate (regularly updated) and with oversight of a Sovereign Investment Committee of appropriately qualified professionals. As the principal of the Fund grows, so will the size of the returns, allowing Guyana to move to a bird-in-hand rule of solely utilising these returns to fill public spending gaps (SDG Targets 17.1 and 17.3).

As the capacity for improved domestic resource mobilisation takes time to further develop, Guyana will continue to seek to fill its financing needs, at least in the near future, with concessional instruments. The country has had a long history of external debt, which diverts government spending from the local economy, to service the debt, and continues to promote prudent and sound debt management practices with the aim of enhancing efficiency and improving accountability and transparency. Over the last four years, debt sustainability analysis indicates that overall debt distress remains moderate. While the country remains vulnerable to external shocks, debt dynamics is expected to improve, significantly, with the start of oil production in 2020.

Guyana recorded a modest total debt-to-GDP ratio over the period 2015 to 2018 – an annual average of about 46 percent. Public debt as a share of GDP is an important measure of debt sustainability and indicates how much of a country's total national income would be needed to repay the entire debt stock. This ratio, known as the solvency ratio, has decreased over the review period from about 48 percent in 2015 to about 44 percent in 2018. The decrease was mainly due to a debt compensation mechanism under the Guyana-Venezuela PetroCaribe arrangement and lower debt accumulation on an annual basis. Moreover, there are at least six (6) main areas where Guyana hopes to improve its debt management capacity: institutional and legal frameworks, debt strategy formulation, self-assessment, operational risk management and debt negotiations. In 2018, significant progress was made in drafting a comprehensive modern consolidated Public Debt Management Bill. It is expected that this Bill would be reviewed and tabled in Parliament by then end of 2019 (SDG Target 17.4).

Table 17 - Select Debt Indicators for the period 2015-2018, Debt Management Division, Ministry of Finance and Bank of Guyana

	2015	2016	2017	2018
Total Debt to GDP	48.4%	45.7%	46.1%	44.2%
External Debt to GDP	36.0%	33.2%	34.3%	34.2%
Domestic Debt to GDP	12.4%	12.5%	11.9%	10.0%
Total Debt Service to Revenue	13.7%	7.2%	7.6%	8.2%
Total External Debt Service to Revenue	12.6%	6.2%	6.5%	7.4%
Total Domestic Debt Service to Revenue	1.1%	1.1%	1.2%	0.7%
Total External Debt Service to Exports	7.5%	3.4%	3.8%	5.1%
Total Public Debt Service to GDP	3.4%	1.8%	2.0%	2.2%
(In millions of Guyana dollars, unless otherwise indicated)				
Memorandum Items:				
Total Public Debt	317,724.4	330,606.3	344,997.3	356,201.1
Total External Debt	236,031.1	240,034.6	256,181.1	275,649.5
Total Domestic Debt	81,693.3	90,571.6	88,816.2	80,551.6
Total Public Debt Service	22,078.9	13,019.6	14,810.2	17,732.3
Total External Debt Service	20,326.9	11,099.3	12,560.3	16,119.7
Total Domestic Debt Service	1,751.9	1,920.3	2,249.9	1,612.5
Gross Domestic Product at Current Purchaser Prices	656,485.0	723,581.0	747,746.0	805,662.7
GDP (US\$)	3,166.0	3,504.02	3,621.05	3,864.09
Total Current Revenue	161,710.2	179,882.0	194,688.0	216,725.6
Exports of Goods and Non-Factor Services	269,730.3	330,436.9	332,203.9	317,591.4
Exports (G & NFS) (US\$)	1,306.2	1,600.2	1,608.7	1,523.2
Guyana dollar/U.S. dollar (End of Period)	206.5	206.5	206.5	208.5
Guyana dollar/U.S. dollar (Period Average)	206.5	206.5	206.5	208.5

The importance of export earnings to the overall macroeconomic stability of Guyana cannot be understated. Generally, the average ad valorem tariff (applied) equivalent in export markets, including preferences, fell from 15.8 percent, in 2015, to 8.3 percent, in 2018 (SDG Target 17.10). The maximum applied tariffs, averaged across all products and export markets, including preferences, declined from 15.8 percent, in 2015, to 10.3 percent, in 2018 (SDG Target 17.10 and 17.12). Over the same period, export earnings for the country have increased from US\$1,170.0 million to US\$1,373.8 million largely attributed to bauxite and other exports⁵² (SDG Target 17.11). Notwithstanding, the average preferential tariffs have remained at 10.8 percent throughout the review period signifying additional room for north-south and south-south cooperation to improve Guyana's capacity to translate preferential access into actual export earnings (SDG Target 17.5).

Guyana's commitment to improved trade and investment conditions must be supported by an environment that facilitates the development of competitive businesses and industries to assure the viability of Guyanese goods and services on the international market. This means that research, development, innovation and technology must be stimulated to improve efficiencies and productivity, adding value while reducing cost. Notwithstanding Guyana's efforts thus far in science, technology and innovation (STI), such as the work of IAST and NAREI, and the promotion of talent in information technology, primary production continues to dominate the economy. Thus, Guyana continues to prioritise technical co-operation with bilateral and multilateral partners for the transfer of technology, skills, and innovative practices into local business and industry, while simultaneously seeking to stimulate local talent (SDG Targets 17.6, 17.7, and 17.9).

In Guyana, results-based management are key public sector management tools used to support evidence-based decision making that will ensure that interventions, whether they are targetted to STI, trade promotion, resource mobilisation or any other area, are grounded and well-informed. To this end, Guyana secured the support of a development partner and elaborated a National Strategy for the Development of Statistics (NSDS), expected to be implemented during the course of 2020 by the Bureau of Statistics. An outcome of the strategy is the establishment of a National Statistical System (NSS), which requires substantial support, both financial and technical, to ensure it is operationalised at soonest. It should be noted that the existing statistical legislation of Guyana is already aligned with the Fundamental Principles of Official Statistics (SDG Target 17.18 and 17.19).

Additionally, the Bureau of Statistics, has put systems in place to undertake a continuous labour force survey, with external support, and has begun the groundwork to undertake an agricultural census – the first since 1952. It has also begun work on the rebasing of the GDP to a 2020 series. The Bureau, however, remains without sufficient in-house capacity to undertake much of this critical work on its own (SDG Target 17.18 and 17.19). In this regard, the performance data required for the national budget process plays a critical complementary role to the work of the Bureau. This repository is extensive and includes key socio-economic indicators of development and is recorded in Volume II of the National Estimates of Expenditure and Revenue, (SDG Target 17.19).

As Guyana prepares for its next fiscal year, Vision 2040 provides a strong foundation for furthering the sustainable development agenda. This foundation is built on the harmonisation of various sector policies and the Sustainable Goals, in a coherent manner, offering the country a unique opportunity for a co-ordinated and impactful implementation of the national development plan. Given this alignment, the Guyana's inherent policy coherence in Vision 2040, developed in a widely consultative process, allows for partnerships to be readily leveraged to focus on the specific priorities and ambitions outlined in the document. As such, Guyana can build on and strengthen its partnerships with the private sector (eg. manufacturing and services), civil society (eg. policy dialogues) and its international partners (eg. development institutions), among others in an effective and targetted manner (SDG Targets 17.13, 17.14, 17.15 and 17.17).

Challenges, Emerging Issues and Addressing the Way Forward

The implementation of the 2030 Agenda, as articulated under SDG 17, relies heavily on the strength of international partnerships to ensure that benefits of comparative advantage, experienced by developed countries, are shared with the developing world. For countries such as Guyana, with small domestic markets, leveraging the merits of international markets is difficult due to the lack of economies of scale and standards of locally-made goods. This lack of competitiveness is attributed to insufficient technologies and STI.

The poor performance in Mathematics and Science at the Grade Six level examination⁵³, in 2016, as well as the below-50 percent performance over the last few years, has been signal of the deficiencies that exist as it relates to STI. The education

⁵² See Bank of Guyana annual reports for year-on-year statistics and explanations. Available at <https://www.bankofguyana.org.gy/bog/economic-financial-framework/publications/annual-reports>

⁵³ In 2016, the pass rates for Mathematics and Science were 13.8 percent and 27.5 percent respectively (Ministry of Education, Measurement and Evaluation Unit (NCERD))

system has not been able to stimulate enough activity and proficiency in the foundational STEAM areas – science, technology, engineering, arts and mathematics. However, implementing reforms to address this will likely require a process that takes time and Guyana needs immediate solutions to ensure an entire generation does not fall behind in STEAM proficiencies. While Guyana is committed to prioritising the requisite reforms in education, it is recognised that resource-constraints restrict the acceleration of investments required to make quick and significant improvements to the sector. In this regard, partnerships are critical resources that can allow for knowledge-sharing, and skills and technology transfer. While training for local teachers may need to be reviewed and reforms effected over a period of years, an assessment of the possibility of recruiting specialist math consultants, from abroad, to supplement the delivery of the curriculum is ongoing.

As educational improvements to increase Guyana's capacity for STI are ongoing, the country must also improve its institutional capacities to attract investment. Guyana's graduation from a low-income developing country to an upper-middle income nation, makes accessing official development assistance (concessional financing) increasingly difficult. Financing partners are encouraged to continue facilitating access to concessional instruments, but at the same time they must be cognisant of the limited capacities of developing countries like Guyana to undertake arduous processes involved in accessing funds. Moreover, recognising the many developmental gaps that still exist in Guyana, the country will also pursue public-private partnerships (PPP). A PPP Policy Framework has already been developed and will be operationalised to facilitate specific and large-scale investments in transportation (e.g. the Demerara Harbour Bridge); energy (hydropower plants and energy farms; an information technology farm; and agro-industrial and small manufacturing parks.

Another source of finance that Guyana is yet to optimally exploit is that of capital markets. This market provides an additional avenue to raise the required resources for investment. Guyana's capital market is still severely underdeveloped and its growth hinges on domestic and international private sector support as well as, a strong institutional and regulatory framework. Currently only fifteen companies trade on the Guyana Stock Exchange. Additionally, the domestic debt market comprises only few instruments. Critical to Guyana's advancement is the development of the capital market, which will allow both the public and private sector access to additional financing required to stimulate economic activity and growth. Recognising the trans-boundary nature of the financial sector, cooperation on all levels is paramount.

As Guyana focuses on its development, the importance of data to guide the effective implementation of interventions required to attain the SDGs cannot be underscored. The prevalence of data gaps in the preparation of Guyana's VNR has heightened the need for increased conversation and action on data at the national level. Data systems strengthening will have to be addressed frontally, to enhance Guyana's capacity for collection, analysis and reporting, especially in light of the M&E Framework for Vision 2040 and the National Budgeting process. Therefore, Guyana will seek to ensure that data strengthening is appropriately featured in its programmes with development institutions. This will also include the institutional strengthening required at the level of the national statistical office, to ensure that the requisite staff, with the required level of skill and experience and the adequate tools and equipment, are available to effectively execute the mandate of the agency.

Lessons Learned

Education, as indicated by His Excellency, is indeed "the mother of all goals". It is a necessity to ensure that all sectors have the skills they require in order to advance, and specifically to allow for science, technology and innovation to thrive. In ensuring this happens, competitiveness, practices and productivity will be enhanced, thereby allowing Guyana to be better able to compete in international markets. This will also enable the country to deliver better educational outcomes, for example in Mathematics, as well as build the institutions required to sustain a modern capital market.

Given the general unpredictability of ODA, developing countries such as Guyana, must explore all options for financing development gaps. In light of the institutional deficiencies that exist in said countries, development partners must ensure that a variety of affordable and easy-to-access instruments are readily available. The lack of adequate financing, as well as the existence of some prohibitive conditions to access financing, are oftentimes the reason for the inability to undertake large scale projects needed for growth and development.

It is evident; however, that policies and programmes, including partnerships, must be data-driven. Trade negotiations must be based on analyses that indicate the conditions that are most optimal for Guyanese business and industry. Similarly, development assistance must be targetted to strategic interventions which have undergone rigorous appraisals demonstrating their viability and impact. Data is critical for designing programmes and for making partnerships meaningful. As such, Guyana aims to ensure that data systems strengthening is ingrained in all facets of sustainable development, to the maximum extent possible, under the auspices of the National Strategy for the Development of Statistics.

7. NEXT STEPS AND MEDIUM-TERM OUTLOOK

Given the integration of the SDGs into the national development plan, the implementation of the Agenda 2030 has become intrinsic to national processes and programmes. While Guyana will continue to undertake periodic Voluntary National Reviews, as encouraged by the Economic and Social Council of the UN, existing internal systems will be strengthened to ensure a continuous assessment to guide public policy interventions.

Eight priority actions have been identified to accelerate actions to achieving the Agenda 2030 as part of Vision 2040. Some of these planned actions resulted from the VNR process.

First, both agendas will be advanced through the national budgeting process. In the formulation of public programmes and investments, public financial management best-practice requires a demonstration of alignment of proposals to strategic direction and plans including Agenda 2030. Additionally, Guyana is in the process of reforming its public investment management system to improve the efficacy of the Public Sector Investment Programme. As part of this reform, a criteria-based approach is proposed for prioritising public investment proposals, of which one criterion includes alignment to national and sectoral strategies as well as international commitments. As budget development and implementation is continuously evaluated and improved, so too will the progress towards achieving the ambitions of Vision 2040 and Agenda 2030.

As a second priority, this first VNR for Guyana will be a publically available document and will be disseminated across the highest levels of government. The Ministry of Finance intends to hold a VNR Outcome workshop among key stakeholders including private sector and civil society to highlight the main lessons learned such that reporting can be improved, going forward. This will also assist to improve programme formulation and implementation.

The third priority is to conduct diagnostic gap assessments for the institutional and human resource arrangements that need to be in place for achieving Agenda 2030 with emphasis on those indicators for which the least progress has been recorded.

The fourth priority is to conduct data development clinics co chaired by the Ministry of Finance and the Bureau of Statistics which will result in the production of sector specific data development plans conscious of the intersectoral requirements. Ensure that all major Budget Agencies establish

planning units with statistical capacities to support policy formulation and programme implementation going forward.

The fifth priority would be accelerating the pace of institutionalising monitoring and evaluation systems across whole of government which will reinforce results based management and evidence based interventions to address the development challenges. This will see higher allocations of expenditure to M&E training and more evaluations being conducted along with other evaluation tools being mandatory e.g. tracer studies for training programmes designed to create employment ready graduates. In this regard, emphasis will be placed on measurement of indicators for the Education and Health objectives and related outcomes.

The sixth priority will realise mandatory interagency collaborative mechanisms to support tracking of core SDGs. These discussions will inform the programmatic interventions via the national budgeting process. Already there exists some sectoral mechanisms (e.g. Sectoral Programme Coherence Meetings) that if strengthened could facilitate this engagement.

The seventh priority is to actively seek adequate and affordable funding and technical expert assistance to support the realisation of the Agenda 2030 recognising that this is a few short years away and many of the interventions will need to be frontloaded now in order to achieve the intended impact with the 2030 timeline as part of Vision 2040.

The eighth priority is building citizens' knowledge, cooperation and partnerships for the attainment of the SDGs through awareness of developmental efforts in attaining the Agenda 2030.

While these priorities have been listed chronologically the intent is to address them simultaneously. Indeed it is anticipated that the timely implementation of these priorities will provide a strong enabling environment for advancing Agenda 2030.

8. CONCLUSION

The ambitious 2030 Agenda for Sustainable Development presents countries with a demanding work programme that, invariably, tests the slim bureaucracies of developing countries. It is no different for Guyana. The process of completing Guyana's first Voluntary National Review proved to be, an exercise that was illuminating of the magnitude of the challenge before us. What is pellucid is that while there are several areas of progress that inspire confidence for the future, there is a tremendous amount of work to be done to ensure that Guyana achieves these very noble global goals to which our nation is unwaveringly committed.

Also clear is the Government of Guyana's commitment to ensure that the private sector, civil society, and indeed every man, woman and child, understands and appreciates what it means to achieve these goals. To even grasp where Guyana is, as a nation in terms of being able to achieve the SDGs, means that the baseline positions must be quantified, as far as possible and, to be able to determine this accurately appropriate data must be generated to support the analytics required. Already, it has been recognised that, approximately 30 percent of the indicators, for which data was not available may require that survey information be measured. Meanwhile, the remaining data may be sourced from administrative data, much of which, has to be generated, or systematically organised. Depending on the size and duration of surveys required, the cost could be in the vicinity of hundreds of millions of Guyana dollars given the topographical variations and its impact on the logistics of data collection. This is further complicated by the limited infrastructural development and related access and connectivity that cause the marginal costs to increase as one goes further from the capital.

Critical to realising the SDGs is the capabilities of human capital across the country, and the quality of education that can be delivered considering the systemic inadequacies. As one of the Goals identified for indepth review at this year's High-level Political Forum, the actions and momentum that follow from this review is expected to galvanise collective attention across all stakeholders within Guyana to ensure we are able to demonstrate substantive progress at the next HLPF.

Guyana will continue to prioritise the social sector with intensified focus on education and healthcare to ensure that Guyana's peoples become a nation, capable of shaping its destiny along a path of peace and prosperity and, that is respectful to the environment of Guyana and, by extension, the planet.

Guyana will continue to work with the UN and other development partners to ensure that the required technical and financial capacity and support are generated as needed to eliminate the inequality of basic services and to advance progress on all the Goals and to the realization of our own national long term development plan, Vision 2040.

ANNEXES

Overview

In September 2015, the United Nations celebrated its 70th Anniversary and in recognition of this milestone the 2030 Agenda for Sustainable Development was unveiled. The main objective of this agenda is to achieve sustainable development in the year 2030 for all peoples of the world. This vision aims to eradicate inequality and inequity amongst women and men, the haves and the have not's, vulnerable groups and developed and developing countries by addressing the economic and social elements responsible for the imbalances within countries.

The third facet of the agenda is an environmental component that aims to focus on the protection of the planet. This multi-dimensional approach incorporates the three core elements of development (economic, social and environmental). These factors combined to formulate the 2030 Agenda for sustainable development which comprises 17 Goals and 169 Targets.

A Global Indicator Framework was developed in 2016 to measure the progress towards achieving the goals and targets. This global framework has 244 indicators, of which 9 indicators are observed to have repeated under different goals and targets. In fulfilment of our obligation to voluntarily participate in the review process, a tabular presentation reflecting the goals, targets and indicators are highlighted in this Statistical Annex. The presentation reviews data for a four- year period (2015-2018). In the absence of available data for the global indicators, proxy indicators were used to supplement.

Of the 17 goals, requisite data was available for 16 goals. All efforts are being made to update the indicators for all the goals including goal 12 which has no data (See Figure 1). Information was available for 16% of the global indicators while proxy indicators accounted for 26%. Also, more than half of the indicators (58%) has no data available (See Figure 2).

Figure 1: Availability of SDG Indicators by Goal, Guyana: 2019

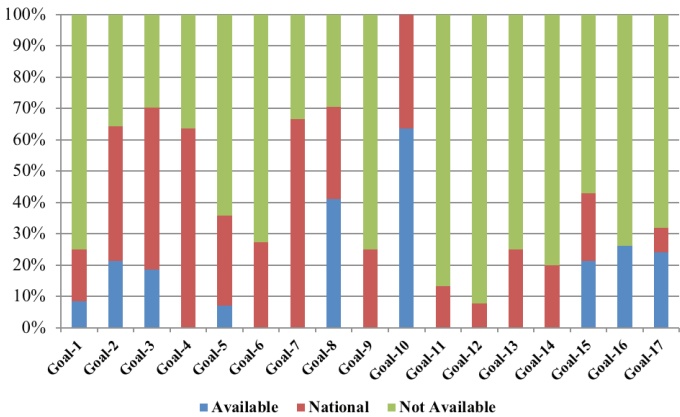
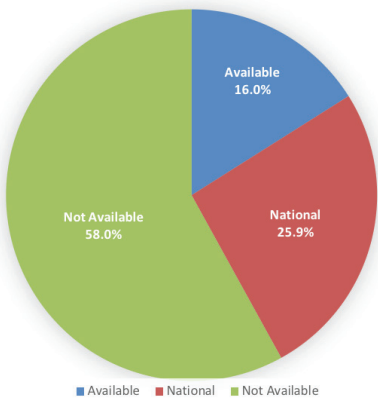


Figure 2: Data Availability for SDG, Guyana: 2019



ANNEX – A: **TABULAR PRESENTATION**

This tabular presentation contains the 17 SDGs and the respective targets. It also includes data for some indicators where data is available to measure Guyana's progress towards achieving the respective Targets of the 2030 Agenda. In instances where data is not available for the global indicators, national indicators are used instead.

Note: na represents "not available"

GOAL 1: END POVERTY IN ALL ITS FORMS EVERYWHERE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)		Percent	na	na	na	na
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1 Proportion of population living below the national poverty line, by sex and age		Percent	na	na	na	na
	1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions		Percent	na	na	na	na
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	Number of persons aged 65+ that access Old Age Pension	Number	54,271	54,180	55,330	58,536
		Number of persons accessing Public Assistance	Number	17,230	13,312	14,197	15,391
1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1 Proportion of population living in households with access to basic services		Percent	na	na	na	na
	1.4.2 Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure		Percent	na	na	na	na
1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	1.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people		Number	na	na	na	na
	1.5.2 Direct disaster economic loss in relation to global Gross Domestic Product (GDP) ^a		Number	na	na	na	na
	1.5.3 Number of countries with national and local disaster risk reduction strategies		Number	na	na	na	na

GOAL 1: END POVERTY IN ALL ITS FORMS EVERYWHERE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	1.a.1 Proportion of resources allocated by the government directly to poverty reduction programmes		Percent	na	na	na	na
	1.a.2 Proportion of total government spending on essential services (education, health and social protection)		Percent	31.6	35.8	35.6	34.8
1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions	1.b.1 Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups		Percent	na	na	na	na
Source: Ministry of Social Protection (MOSP), Ministry of Finance (MOF)							

GOAL 2: END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	2.1.1 Prevalence of Undernourishment	Proportion of population severely malnourished	Percent	0.6	0.5	0.9	0.4
	2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)		Percent	na	na	na	na
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	2.2.1 Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age	Prevalence of stunting among children under 5 years of age	Percent	0.6	2.2	1.7	1.5
	2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)	Prevalence of malnutrition among children under 5 years of age (wasting)	Percent	0.2	0.4	0.2	0.6
		Prevalence of malnutrition among children under 5 years of age (overweight)	Percent	1.9	2.8	1.8	2.9
		Anaemia prevalence among pregnant women	Percent	23.0	14.3	15.7	17.1
2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	2.3.1 Volume of production per labour unit by classes of farming/pastoral/ forestry enterprise size	Agriculture, Fishing and Forestry GDP at Current Basic Prices (G\$M)	Value	112,729	95,938	96,958	102,545
	2.3.2 Average income of small-scale food producers, by sex and indigenous status		Value	na	na	na	na

GOAL 2: END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
2.4 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	2.4.1 Proportion of agricultural area under productive and sustainable agriculture	Proportion of other crops area under sustainable agriculture	Percent	na	na	na	1.0
2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	2.5.1 Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities		Number	6,013	6,629	7,731	6,724
	2.5.2 Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction		Percent	na	na	na	na
2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	2.a.1 The agriculture orientation index for government expenditures		Percent	0.68	0.59	0.53	0.63
	2.a.2 Total official flows (official development assistance plus other official flows) to the agriculture sector		Value	1,695	1,990	1,590	2,595
2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	2.b.1 Producer Support Estimate		Value	na	na	na	na
	2.b.2 Agricultural export subsidies		Value	na	na	na	na
2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	2.c.1 Indicator of food price anomalies	Annual % change in Food sub-group of the CPI	Percent	-1.0	4.2	2.8	3.0

Source: Bureau of Statistics, Ministry of Agriculture, Ministry of Finance, Ministry of Public Health

GOAL 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	3.1.1 Maternal mortality ratio	Maternal mortality rate per 100,000 live births	Percent	112.0	101.0	133.0	70.0
	3.1.2 Proportion of births attended by skilled health personnel		Percent	95.0	94.0	96.0	94.0
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	3.2.1 Under-five mortality rate		Percent	24.3	25.1	21.5	na
	3.2.2 Neonatal mortality rate		Percent	20.4	20.0	18.6	na
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations	Incidence of HIV per 100,000 population	Number	113	169	161	142
	3.3.2 Tuberculosis incidence per 1,000 population	TB mortality rate per 100,000 population	Percent	9.0	10.0	8.4	10.7
	3.3.3 Malaria incidence per 1,000 population		Number	13	22	17	15
	3.3.4 Hepatitis B incidence per 100,000 population	Hepatitis B prevalence among blood donors	Percent	1.4	na	2.0	1.4
	3.3.5 Number of people requiring interventions against neglected tropical diseases	Number of leprosy cases diagnosed and treated before the development of disabilities	Number	29	52	62	49
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease		Percent	26.4	26.7	28.5	-
	3.4.2 Suicide mortality rate	Incidence rate of suicide per 100,000 population	Percent	29.0	45.0	24.6	16.0

GOAL 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders	Number of persons supported for rehabilitation by the national drug reduction programme	Number	na	na	95	111
	3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	Percentage of persons (based on a sample) who engage in heavy episodic drinking (6 or more drinks on any occasion in the past 30 days)	Percent	na	21.5	na	na
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	3.6.1 Death rate due to road traffic injuries	Percent of deaths from road traffic accidents	Percent	16.4	16.7	14.8	15.1
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth at least once by a skilled health personnel	Percent	89.0	na	na	na
	3.7.2 Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group	Percentage of births delivered by adolescent females	Percent	24.0	24.0	24.0	23.0

GOAL 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)	Percent of children immunized by 12 months Diphtheria, Pertussis and Tetanus (DPT)	Percent	96.0	97.0	97.0	98.0
	3.8.2 Number of people covered by health insurance or a public health system per 1,000 population		Number	na	na	na	na
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	3.9.1 Mortality rate attributed to household and ambient air pollution		Percent	na	na	na	na
	3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)		Percent	na	na	na	na
	3.9.3 Mortality rate attributed to unintentional poisoning		Percent	na	na	na	na
3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate	3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older	Percentage of persons aged 18-69 who smoke tobacco daily	Percent	22.8	na	na	na
3.b Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all	3.b.1 Proportion of the population with access to affordable medicines and vaccines on a sustainable basis	Percentage of children immunised by 12 months (DPT)	Percent	96	97	97	98
	3.b.2 Total net official development assistance to medical research and basic health sectors		Number	na	na	na	na
	3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis		Percent	na	na	na	na

GOAL 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States	3.c.1 Health worker density and distribution	Number of Physicians per 10,000 population	Percent	14.1	11.2	11.3	13.5
		Public Health Expenditure as a percent of National Budget	Percent	11.2	12.3	12.7	12.4
3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness			na	na	na	na

Source: Ministry of Public Health

GOAL 4: ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	4.1.1 Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	Percentage of children at primary level who have attained minimum proficiency standards (Grade 2), numeracy	Percent	na	27.0	19.0	20.0
		Percentage of children at primary level who have attained literacy standards (Grade 4)	Percent	na	na	36.0	34.0
		Percentage of children at primary level who have attained numeracy standards (Grade 4)	Percent	na	na	28.0	38.0
		Percentage of Grade 6 students gaining 50 percent or more in English	Percent	47.0	43.0	54.0	60.0
		Percentage of Grade 6 students gaining 50 percent or more in Mathematics	Percent	40.0	41.0	45.0	38.0
		Percentage of students who attained passes in at the end of lower secondary English	Percent	56.0	47.0	54.0	38.0
		Percentage of students who attained passes in at the end of lower secondary Mathematics	Percent	16.0	21.0	17.0	19.0
4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex	Pupils	Percent	na	na	na	na

GOAL 4: ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	4.3.1 Participation rate in organized learning (one year before the official primary entry age), by sex	Proportion of age 5 nursery pupils enrolled in nursery schools	Percent	75.0	63.0	62.0	na
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	Number of youths and adults trained in Technical and Vocational skills	Number	1,643	1,503	1,688	1,492
4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	Performance Index of Hinterland and Coastal students on the CSEC Examination	Percent	0.4	0.4	0.28	0.41
		Performance Index of Hinterland and Coastal students on the NGSA Examination	Percent	0.28	0.006	0.29	0.28
4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	4.6.1 Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	Percentage of children at primary level who have attained literacy standards (Grade 4)	Percent	na	na	2.0	3.0
		Percentage of children at primary level who have attained numeracy standards (Grade 4)	Percent	na	na	8.0	16.0
4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	4.a.1 Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic hand washing facilities (as per the WASH indicator definitions)	Composite Index of condition of facilities	Percent	na	na	62.0	na

GOAL 4: ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	4.b.1 Volume of official development assistance flows for scholarships by sector and type of study		Value	na	na	na	na
4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.c.1 Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country	Percentage of teachers trained across levels	Percent	72.0	72.0	71.0	73.0

Source: Ministry of Education (MOE), Ministry of Social Protection (MOSP)

GOAL 5: ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
5.1 End all forms of discrimination against all women and girls everywhere	5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and nondiscrimination on the basis of sex			na	na	na	na
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age	Reported cases of trafficking in person per 100,000 population	Number	55	31	47	221
		Reported cases of domestic violence per 100,000 population	Number	647	1,559	1,458	1,200
		Number of women and girls 14 - 18 and older subjected to physical and / or sexual violence in the last 12 months	Number	437	435	501	571
	5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence		Percent	na	na	na	na
5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	5.3.1 Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18		Percent	na	na	na	na
	5.3.2 Proportion of girls and women aged 15-49 years who have undergone female genital mutilation/cutting, by age	NOT APPLICABLE TO GUYANA					
5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location		Percent	na	na	na	na

GOAL 5: ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	5.5.1 Proportion of seats held by women in national parliaments and local governments						
	Proportion of seats held by women in Parliament		Percent	30.9	31.4	30.9	30.9
		Number of seats held by women in local government	Number	69	60	60	60
	5.5.2 Proportion of women in managerial positions		Percent	na	na	36.7	47.5
		Employed Persons by legislators, Senior Officials and Manager	Percent	74.3	70.9	na	na
5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care		Percent	na	na	na	na
	5.6.2 Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education		Number	na	na	na	na

GOAL 5: ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws	5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure	Proportion of Small Business Bureau financing accessed by women	Percent	36.9	32.4	21.0	28.6
		Number of loans accessed by women from the banking sector	Number	1877	1995	1730	1533
	5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	Value of loans accessed by women from the banking sector	Value (G\$M)	1,476.8	1,473.3	1,852.6	1,759.1
5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women	5.b.1 Proportion of individuals who own a mobile telephone, by sex		Percent	na	na	na	na
5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	5.c.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment		Percent	na	na	na	na

Source: Ministry of Social Protection (MOSP), Parliament Office (PO), Bureau of Statistics (BOS), Public Sector Commission (PSC), Ministry of Business (MOB), Bank of Guyana (BOG)

GOAL 6: ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services	Proportion of water quality tests meeting WHO guidelines (at source)	Percent	na	na	47.0	65.0
		Proportion of water quality tests meeting WHO guideline (in distribution)	Percent	na	na	49.0	65.0
		Proportion of coastal population receiving access to water	Percent	na	na	97.0	97.0
		Proportion of hinterland population receiving access to water	Percent	na	na	na	na
		Proportion of coastal population receiving treated water	Percent	na	na	51.0	61.0
		Proportion of hinterland population receiving treated water	Percent	na	na	4.0	na
		Proportion of coastal population receiving at least 5m level of water pressure	Percent	na	na	58.0	74.0
		Proportion of coastal population receiving 24hrs supply of water	Percent	na	na	na	75.0
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water			na	na	na	na
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of wastewater safely treated			na	na	na	na
	6.3.2 Proportion of bodies of water with good ambient water quality			na	na	na	na

GOAL 6: ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time	Proportion of metered customers	Percent	na	45.0	49.0	51.0
	6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources			na	na	na	na
6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1 Degree of integrated water resources management implementation (0-100)			na	na	na	na
	6.5.2 Proportion of trans-boundary basin area with an operational arrangement for water cooperation			na	na	na	na
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time			na	na	na	na
6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies	6.a.1 Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan			na	na	na	na
6.b Support and strengthen the participation of local communities in improving water and sanitation management	6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	Proportion of local organs that received capacity building in wastewater management and solid waste management	Percent	na	na	na	0.15

Source: Guyana Water Inc (GWI), Ministry of Communities (MOC), Solid Waste Management (SWM)

GOAL 7: ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	7.1.1 Proportion of population with access to electricity	Expand Customer Base (Number of new customers added in a year)	Number	na	2,740	4,883	7,464
	7.1.2 Proportion of population with primary reliance on clean fuels and technology	Percentage of rural households using electricity as their main source of fuel for lighting	Percent	85.4	87.1	88.9	90.7
		Residential electricity consumption per capita (tep/ '000s habitants)	Value	31.5	32.8	33.9	35.4
		Percentage of households using clean fuels and technology (LPG, electricity, biodigesters, energy efficient and solar cooking stoves) for cooking	Percent	73.3	76.5	79.8	83.2
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 Renewable energy share in the total final energy consumption	Renewable energy as percentage of total energy produced	Percent	na	na	0.5	0.0
		Percentage of renewable energy installed capacity	Percent	15.7	16.2	16.0	16.6
7.3 By 2030, double the global rate of improvement in energy efficiency	7.3.1 Energy intensity measured in terms of primary energy and GDP		KWH	na	na	na	na
7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	7.a.1 Mobilized amount of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment		Value US \$	na	na	na	na

GOAL 7: ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support	7.b.1 Investments in energy efficiency as a percentage of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services	Medium and low voltage network installed and upgraded	Km	na	16.0	57.6	308.3
		Percentage of Advanced Metering Infrastructure (AMI)-capable meters utilized	Percent	na	na	0	16.0

Source: Guyana Power and Light (GPL), Guyana Energy Agency (GEA)

GOAL 8: PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries	8.1.1 Annual growth rate of real GDP per capita		Percent	3.1	3.4	2.1	4.1
		Annual growth rate of real GDP per capita (including oil)	Percent	na	na	na	na
8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	8.2.1 Annual growth rate of real GDP per employed person		Percent	na	na	na	12.0
8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	8.3.1 Proportion of informal employment in non-agriculture employment, by sex					48.6	
	Male		Percent	na	na	52.8	54.9
	Female		Percent	na	na	41.7	40.0
8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead	8.4.1 Material footprint, material footprint per capita, and material footprint per GDP		Value US \$	na	na	na	na
	8.4.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Domestic Material consumption of primary forest products	Cubic Metre	274,203	206,831	229,661	240,750
		Level of fossil fuel consumption	Barrels ('000)	4,955	5,612	5,630	5,860
8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	Average minimum monthly earnings of female and male employees by sector					
		Public Sector	Value	50,000	55,000	60,000	64,200
		Private Sector	Value	35,000	39,540	44,200	44,200
	8.5.2 Unemployment rate, by sex, age and persons with disabilities	Unemployment rate, by sex					
		Male	Percent	na	na	9.9	12.3
		Female	Percent	na	na	15.6	15.9

GOAL 8: PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training	8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training					32.9	23.7
	Male		Percent	na	na	22.6	23.7
	Female		Percent	na	na	43.0	45.9
8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age			na	na	na	na
8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status	Number of non-fatal occupational injuries , by sex					
		Male	Number	457	408	375	364
		Female	Number	59	44	52	80
		Number of fatal occupational injuries , by sex					
		Male	Number	24	21	16	21
		Female	Number	0	0	0	1
	8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	Number of collective labour agreements signed between employers and employees' representatives/ unions	Number	11	10	10	15
8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products	8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate	Tourism share of total GDP	Percent	3.3	2.6	2.6	4.3
	8.9.2 Proportion of jobs in sustainable tourism industries out of total tourism jobs	Proportion of jobs in the tourism industry as of total employment	Percent	na	na	2.9	na

GOAL 8: PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all	8.10.1 Number of commercial bank branches and automated teller machines (ATMs) per 100,000 adults						
	Number of commercial banks branches per 100,00 adults		Number	9	9	9	9
	Number of automated teller machines (ATM) per 100, 000 adults		Number	20	22	21	23
	8.10.2 Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider			na	na	na	na
8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries	8.a.1 Aid for Trade commitments and disbursements			na	na	na	na
8.b By 2020, develop and operationalise a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization	8.b.1 Total government spending in social protection and employment programmes as a proportion of the national budgets and GDP			na	na	na	na

Source: Bureau of Statistics (BOS), Guyana Forestry Commission (GFC), Ministry of Social Protection (MOSP), Guyana Energy Agency (GEA), Ministry of Business(MOB), Bank of Guyana (BOG)

GOAL 9: BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.1.1 Proportion of the rural population who live within 2 km of an all-season road	Number of trails upgraded to secondary (hinterland) roads	Number	4	8	10	12
		Average travel time on Linden - Lethem road measured in hrs (24hrs in 2010, 12hrs in 2014, 6hrs in 2025)	Hours	18	14	13	12
	9.1.2 Passenger and freight volumes, by mode of transport		Number	na	na	na	na
9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	9.2.1 Manufacturing value added as a proportion of GDP and per capita	Manufacturing value added as a proportion of GDP	Percent	11.0	9.0	10.0	12.0
	9.2.2 .Manufacturing employment as a proportion of total employment		Percent	na	na	na	10
9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	9.3.1 Proportion of small-scale industries in total industry value added		Percent	na	na	na	na
	9.3.2 Proportion of small-scale industries with a loan or line of credit	Value of financing accessed by small-scale industries from the Small Business Bureau	Value ('000)	121,238	184,067	296,746	317,746
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	9.4.1 CO2 emission per unit of value added		Kg.	na	na	na	na
9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	9.5.1 Research and development expenditure as a proportion of GDP		Percent	na	na	na	na
	9.5.2 Researchers (in full-time equivalent) per million inhabitants		Number	na	na	na	na

GOAL 9: BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States	9.a.1 Total official international support (official development assistance plus other official flows) to infrastructure		Value	na	na	na	na
9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities	9.b.1 Proportion of medium and high-tech industry value added in total value added		Percent	na	na	na	na
9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020	9.c.1 Proportion of population covered by a mobile network, by technology		Percent	na	na	na	na

Source: Ministry of Public Infrastructure (MOPI), Bureau of Statistics (BOS), Labour Force Survey (LFS), Ministry of Business (MOB)

GOAL 10: REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 percent of the population at a rate higher than the national average	10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 percent of the population and the total population		Percent	na	na	na	na
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	10.2.1 Proportion of people living below 50 percent of median income, by age, sex and persons with disabilities		Percent	na	na	na	na
10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	10.3.1 Proportion of the population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law		Percent	na	na	na	na
10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	10.4.1 Labour share of GDP, comprising wages and social protection transfers	Change in the public sector minimum wage	Percent	17.1	10.0	9.1	7.0
		Change in the national minimum wage	Percent	na	na	27.0	na
		Change in the Old Age Pension	Percent	36.0	7.0	4.4	2.6
10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations	10.5.1 Financial Soundness Indicators	Capital Adequacy Ratio	Percent	23.9	25.4	27.1	28.7
		Non-Performing Loans	Percent	11.5	12.9	12.2	11.9
		Liquidity Ratio	Percent	28.8	30.4	29.4	30.2
10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions	10.6.1 Proportion of members and voting rights of developing countries in international organizations		Percent	na	na	na	na
10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	10.7.1 Recruitment cost borne by employee as a proportion of yearly income earned in country of destination		Percent	na	na	na	na
	10.7.2 Number of countries that have implemented well-managed migration policies		Number	na	na	na	na

GOAL 10: REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements	10.a.1 Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff	Number of countries with which Guyana has trade agreements reducing export tariffs	Number	10	10	10	10
		Number of tariff lines attracting preferential rates of duty for exports by agreement	Number	33,789	33,789	33,789	33,789
10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes	10.b.1 Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development assistance, foreign direct investment and other flows)		Value	na	na	na	na
10.c By 2030, reduce to less than 3 percent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 percent	10.c.1 Remittance costs as a proportion of the amount remitted	Average cost of transaction <G\$100,000 as a percentage of transaction value	Percent	na	na	na	14.0
		Average cost of transaction >G\$100,000 as a percentage of transaction value	Percent	na	na	na	4.0

Source: Ministry of Finance (MOF), Ministry of Social Protection (MOSP), Bank of Guyana (BOG), Ministry of Foreign Affairs (MOFA)

GOAL 11: MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing	Proportion of applicants for public housing programme inclusive of vulnerable groups, accessing adequate housing	Percent	2.7	4.6	2.2	1.6
		Proportion of informal settlers regularised	Percent	1.6	0.9	1.7	0.9
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities		Percent	na	na	na	na
11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	11.3.1 Ratio of land consumption rate to population growth rate		Percent	na	na	na	na
	11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically		Percent	na	na	na	na
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)		Value	na	na	na	na

GOAL 11: MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people		Number	na	na	na	na
	11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services		Percent	na	na	na	na
11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	Proportion of urban solid waste collected and adequately disposed for Georgetown	Percent	na	0.7	0.7	0.8
	11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)		Average	na	na	na	na
11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	Number of Urban Parks	Number	4	4	4	4
	11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months		Percent	na	na	na	na
11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city		Percent	na	na	na	na
11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels	11.b.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030		Percent	na	na	na	na
	11.b.2 Number of countries with national and local disaster risk reduction strategies		Number	na	na	na	na

GOAL 11: MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	11.c.1 Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials		Percent	na	na	na	na

Source: Ministry of Communities (MOC)

GOAL 12: ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies		Number	na	na	na	na
12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1 Material footprint, material footprint per capita, and material footprint per GDP		Value US \$	na	na	na	na
	12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	Domestic Material Consumption of Primary Forestry Products	Cubic Meters	274,203	206,831	229,661	240,750
		Level of fossil fuel consumption	Barrels ('000)	4,955	5,612	5,630	5,860
12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	12.3.1 Global food loss index		Percent	na	na	na	na
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement		Number	na	na	na	na
	12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment		Percent	na	na	na	na
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1 National recycling rate, tons of material recycled		Per tones	na	na	na	na
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	12.6.1 Number of companies publishing sustainability reports		Number	na	na	na	na

GOAL 12: ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities	12.7.1 Number of countries implementing sustainable public procurement policies and action plans		Number	na	na	na	na
12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment			na	na	na	na
12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production	12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies		Number	na	na	na	na
12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	12.b.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools		Number	na	na	na	na
12.c Rationalise inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels			na	na	na	na

Source: Guyana Forestry Commission (GFC)

GOAL 13: TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	13.1.1 Number of countries with national and local disaster risk reduction strategies		Number	na	na	na	na
	13.1.2 Number of deaths, missing persons and persons affected by disaster per 100,000 people		Number	na	na	na	na
	13.1.3 Proportion of local government that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies		Percent	na	na	na	na
13.2 Integrate climate change measures into national policies, strategies and planning	13.2.1 Number of countries that have communicated the establishment or operationalisation of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)		Number	na	na	na	na
13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	Secondary Schools and education institutionalized (Number of students reached)	Number	na	na	353	627
	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	Technologies identified and prioritize for transfer for climate change mitigation and adaptation	Number	na	na		(Technology action plan for climate change mitigation and adaptation)

GOAL 13: TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalise the Green Climate Fund through its capitalization as soon as possible	13.a.1 Mobilized amount of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment		Value US \$	na	na	na	na
13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	13.b.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities		Number	na	na	na	na

Source: Office of Climate Change (OCC)

GOAL 14: CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	14.1.1 Index of coastal eutrophication and floating plastic debris density		Percent	na	na	na	na
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches			Shell Beach Protected Area established in 2011, is partly coastal and is the nesting ground for 4 marine turtle species.			
14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations		Average	na	na	na	na
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	14.4.1 Proportion of fish stocks within biologically sustainable levels		Percent	na	na	na	na
14.5 By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	14.5.1 Coverage of protected areas in relation to marine areas		Percent	na	na	na	na

GOAL 14: CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation[c]	14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing			na	Ratified Port State Measures	na	na
14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	14.7.1 Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries		Percent	na	na	na	na
14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries	14.a.1 Proportion of total research budget allocated to research in the field of marine technology		Percent	na	na	na	na
14.b Provide access for small-scale artisanal fishers to marine resources and markets	14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries			na	na	na	na
14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"	14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nations Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources		Number	na	na	na	na

Source: Department of Energy (DOE), Ministry of Agriculture (MOA)

GOAL 15: PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	15.1.1 Forest area as a proportion of total land area		Percent	87.0	87.0	87.0	87.0
	15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Percentage of terrestrial and freshwater biodiversity under the National Protected Areas System	Percent	6.4	6.4	8.4	8.4
15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	15.2.1 Progress towards sustainable forest management			na	na	na	na
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world	15.3.1 Proportion of land that is degraded over total land area	Proportion of forest land degraded over total forest cover	Percent	0.00031	0.00031	0.00019	na
15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development	15.4.1 Coverage by protected areas of important sites for mountain biodiversity		Percent	na	na	na	na
	15.4.2 Mountain Green Cover Index	Intact Forest Landscape	Ha-Hectares ('000)	7,604	7,604	7,604	7,604
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	15.5.1 Red List Index		Percent	na	na	na	na
15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed	15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits		Number	na	na	na	na
15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products	15.7.1 Proportion of traded wildlife that was poached or illicitly trafficked		Percent	na	na	na	na

GOAL 15: PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species	15.8.1 Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species		Percent	na	na	na	na
15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	15.9.1 Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020			na	na	na	na
15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems	15.a.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems		Value (US'000)	750	750	750	500
15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation	15.b.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems		Value (US'000)	750	750	750	500
15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities	15.c.1 Proportion of traded wildlife that was poached or illicitly trafficked		Percent				

Source: Guyana Forestry Commission (GFC), Department of Energy (DOE)

GOAL 16: PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
16.1 Significantly reduce all forms of violence and related death rates everywhere	16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age	Percentage of victims of international Homicide	Percent	19.4	18.4	14.8	14.2
	Intentional homicide by sex (breakdown) - Male		Number	121	132	94	86
	Intentional homicide by sex (breakdown) - Female		Number	28	10	21	25
	Intentional homicide by age (breakdown)						
	Age 0 - 14 yrs - Males		Number	0	3	3	1
	Age 0 - 14 yrs - Females		Number	4	0	1	0
	Age 15 - 29 yrs - Males		Number	47	51	21	33
	Age 15 - 29 yrs - Females		Number	8	2	7	11
	Age 30 -44 yrs - Males		Number	45	36	37	18
	Age 30 -44 yrs - Females		Number	8	3	6	11
	Age 45 - 59 yrs - Males		Number	23	30	25	23
	Age 45 - 59 yrs - Females		Number	3	3	3	1
	Age 60 yrs + - Males		Number	6	13	3	7
	Age 60 yrs + - Females		Number	6	1	4	2
	Age Unknown - Males		Number	0	0	5	4
	Age Unknown - Females		Number	0	0	0	0
	16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause		Number	na	na	na	na
	16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months						
	Sexual Offences		Percent	na	na	1.4	na
	Aggressive Behaviour		Percent	na	na	29.3	na
	16.1.4 Proportion of population that feel safe walking alone around the area they live		Percent	na	na	0.58	na

GOAL 16: PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children	16.2.1 Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month						
	Aggressive Behaviour		Percent	na	na	64.4	na
	Spanking		Percent	na	na	33.1	na
	16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation		Number	59	98	50	221
	16.2.3 Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18		Percent	4.0	2.1	2.6	19.6
16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms						
	Victimization for property crimes		Percent	na	na	40.0	na
	Victimization for sexual offences crimes		Percent	na	na	35.7	na
	16.3.2 Unsensitized detainees as a proportion of overall prison population		Percent	na	na	na	na
16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime	16.4.1 Total value of inward and outward illicit financial flows (in current United States dollars)		Percent	na	na	na	na
	16.4.2 Proportion of seized small arms and light weapons that are recorded and traced, in accordance with international standards and legal instruments		Percent	na	na	na	na

GOAL 16: PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
16.5 Substantially reduce corruption and bribery in all their forms	16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months		Percent	na	na	na	na
	16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months		Percent	na	na	na	na
16.6 Develop effective, accountable and transparent institutions at all levels	16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)		Percent	na	na	na	na
	16.6.2 Proportion of the population satisfied with their last experience of public services		Percent	na	na	na	na
16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels	16.7.1 Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions		Percent	na	na	na	na
	16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group		Percent	na	na	na	na
16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance	16.8.1 Proportion of members and voting rights of developing countries in international organizations		Percent	na	na	na	na
16.9 By 2030, provide legal identity for all, including birth registration	16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	Proportion of live births registered by civil authority	Percent	na	na	na	na

GOAL 16: PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements	16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months		Number	na	na	na	na
	16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information		Number	na	na	na	na
16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime	16.a.1 Existence of independent national human rights institutions in compliance with the Paris Principles		Number	na	na	na	na
16.b Promote and enforce non-discriminatory laws and policies for sustainable development	16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law		Percent	na	na	na	na

Source: Ministry of Public Security (MOPS)

GOAL 17: STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection	17.1.1 Total government revenue as a proportion of GDP, by source	Total government revenue as a proportion of GDP	Percent	48.0	51.5	53.5	55.6
	17.1.2 Proportion of domestic budget funded by domestic taxes			na	na	na	na
17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 percent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 percent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 percent of ODA/GNI to least developed countries	17.2.1 Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' Gross National Income (GNI)		Percent	na	na	na	na
17.3 Mobilize additional financial resources for developing countries from multiple sources	17.3.1 Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget		Percent	na	na	na	na
	17.3.2 Volume of remittances (in United States dollars) as a proportion of total GDP		Percent	15.3	13.2	12.4	14.8
17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress	17.4.1 Debt service as a proportion of exports of goods and services		Percent	na	na	na	na
17.5 Adopt and implement investment promotion regimes for least developed countries	17.5.1 Number of countries that adopt and implement investment promotion regimes for least developed countries		Number	na	na	na	na

GOAL 17: STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	17.6.1 Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation		Number	na	na	na	na
	17.6.2 Fixed Internet broadband subscriptions per 100 inhabitants, by speed		Number	na	na	na	na
17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed	17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies		Value	na	na	na	na
17.8 Fully operationalise the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	17.8.1 Proportion of individuals using the Internet		Percent	na	na	na	na
17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation	17.9.1 Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries		Value	na	na	na	na
17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda	17.10.1 Worldwide weighted tariff-average	Average ad valorem tariff (applied) equivalent in export markets, including preferences	Percent	15.8	7.8	8.0	8.3
17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020	17.11.1 Developing countries' and least developed countries' share of global exports		Value (US'M)	1,151	1,434	1,437	1,372

GOAL 17: STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access	17.12.1 Average tariffs faced by developing countries, least developed countries and small island developing States	Max applied tariffs, average across all products and export markets, including preferences	Percent	15.5	7.8	8.5	10.2
		Average Preferential Tariffs	Percent	10.8	10.8	10.8	10.8
		Share of tariff lines that are duty free	Percent	9.5	9.5	9.5	9.5
17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence	17.13.1 Macroeconomic Dashboard			na	na	na	na
17.14 Enhance policy coherence for sustainable development	17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development		Number	na	na	na	na
17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development	17.15.1 Extent of use of country-owned results frameworks and planning tools by providers of development cooperation		Percent	na	na	na	na
17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries	17.6.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals		Number	na	na	na	na
17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	17.17.1 Amount of United States dollars committed to public-private and civil society partnerships		Value US \$	na	na	na	na

GOAL 17: STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Target	Indicator Description	National Indicator	Unit of Measure	Review Period			
				2015	2016	2017	2018 (Est.)
17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts	17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics		Percent	29.9	31.1	36.9	34.0
	17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics			Guyana has a Statistics Act that is aligned with the Fundamental Principles of Statistics.			
	17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding			A draft National Strategy for the Development of Statistics was developed in 2018, with support under an Institutional capacity strengthening from IDB Project			
17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries	17.19.1 Dollar value of all resources made available to strengthen statistical capacity in developing countries		Value (USD '000)	6	69	104	116
	17.19.2 Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 percent birth registration and 80 percent death registration			(a) A Population and Housing Census was conducted within the last 10 years (2012). (b) According to the 2014 MICS only 88.7 percent of births were registered. © All reported deaths are registered.			

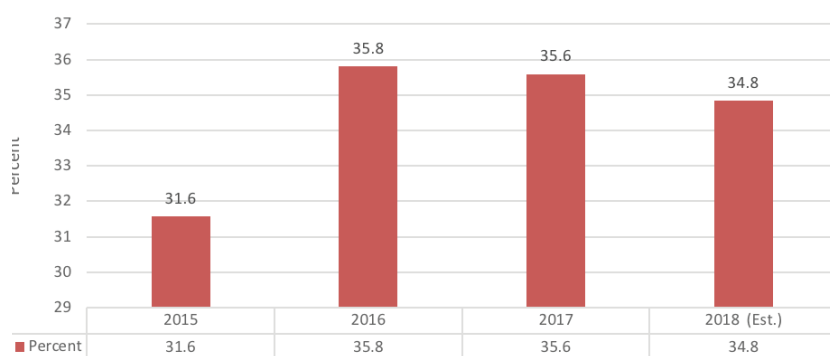
Source: Bureau of Statistics (BOS), Multiple Indicator Cluster Survey (MICS), Ministry of Foreign Affairs (MOFA)

ANNEX – B: **GRAPHICAL PRESENTATION**

This section of the annex displays an illustration of selected global and national indicators to highlight at a glance the progress Guyana has made so far towards achievement of the targets.

GOAL 1:**END POVERTY IN ALL ITS FORMS EVERYWHERE**

Figure 1.a.2: Proportion of Total Government Spending on Essential Services (education, health and social protection), Guyana: 2015-2018



Target 1.a: Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions.

Indicator 1.a.2: Proportion of total government spending on essential services (education, health and social protection)

Definition of Indicator: The percentage of government spending on health and education.

Methodology:**Data Requirements:**

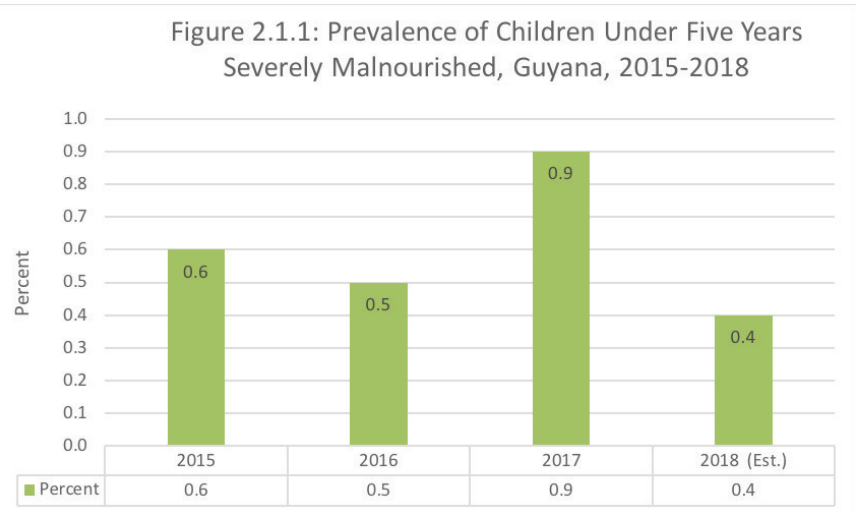
1. Total government expenditure on health and education.
2. Total government expenditure

Formula: Total government expenditure on health and education divided by total government expenditure multiply by 100.

Frequency of Calculation: Annually

Source of Data: Ministry of Finance

GOAL 2:
END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE



Target 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

Indicator 2.1.1: Prevalence of undernourishment
National Indicator: Prevalence of children under 5 years severely malnourished as a percentage of age group

Definition of Indicator: The prevalence of severely malnourished treats with children under the age of 5 years with caloric intake which is insufficient to meet minimum requirements for a healthy life style.

Methodology:

Data Requirements:

- 1. Number of children severely malnourished under 5 years
- 2. Population 0 – 4 years

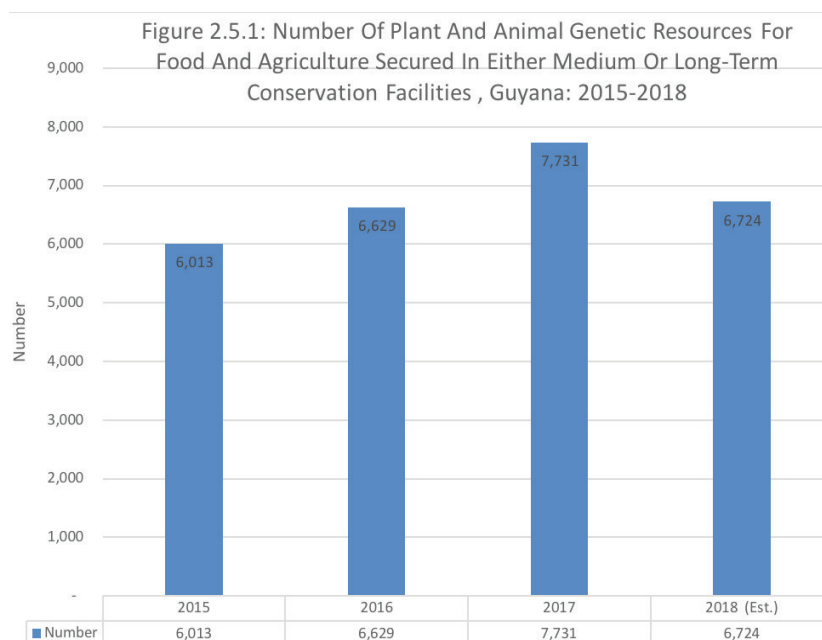
Formula: Number of children severely malnourished under 5 years divided by Population 0 – 4 years multiply by 100

Frequency of Calculation: Annually

Source of Data: Ministry of Public Health

GOAL 2:

END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE



Target 2.5: By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

Indicator 2.5.1: Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities

Definition of Indicator: Number of plant genetic species for food and agriculture that are added to and maintained in-vitro and ex-situ for medium and long term conservation inclusive of seeds maintained for future use and Research and Development.

Methodology:

Data Requirements:

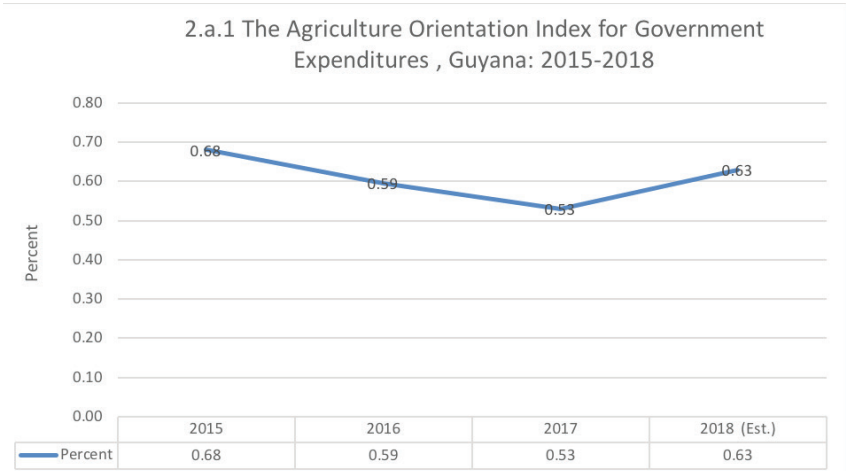
1. Number of plant genetic species
2. Number of seeds

Formula: Sum of all plant species and seeds

Frequency of Calculation: Annually

Source of Data: Ministry of Agriculture

GOAL 2:
END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE



Target2.a: Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

Indicator 2.a.1: The Agriculture Orientation index for government expenditures

Definition of Indicator: The Agriculture Orientation Index (AOI) for Government Expenditures is defined as the Agriculture Share of Government Expenditures, divided by the Agriculture Value Added Share of GDP, where Agriculture refers to the agriculture, forestry, fishing and hunting sector.

Methodology:

Data Requirements:

- 1. Agriculture Share of Central Government Expenditure
- 2. Agriculture Value Added Share of GDP

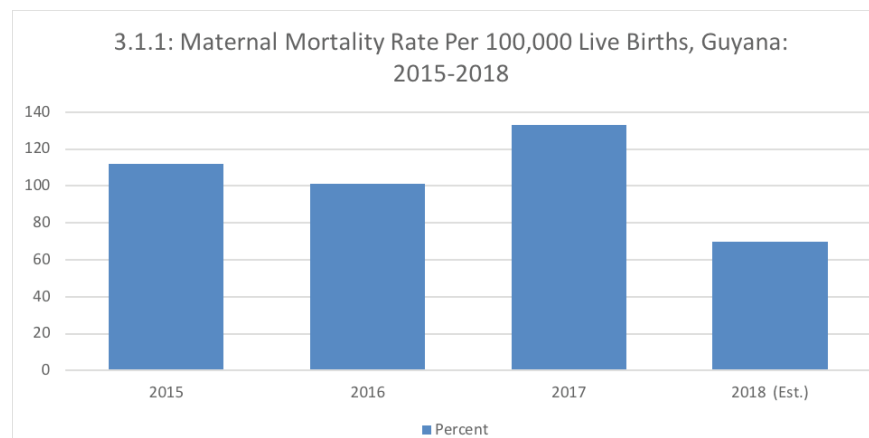
Formula: Agriculture share of central government expenditure divided by agriculture Value added share of GDP

Frequency of Calculation: Annually

Source of Data: Ministry of Finance and Bureau of Statistics

GOAL 3:

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES



Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

Indicator 3.1.1: Maternal mortality ratio

National Indicator: Maternal mortality rate per 100,000 live births

Definition of Indicator: The maternal mortality ratio refers to the number of women who died from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births.

Methodology:

Data Requirements:

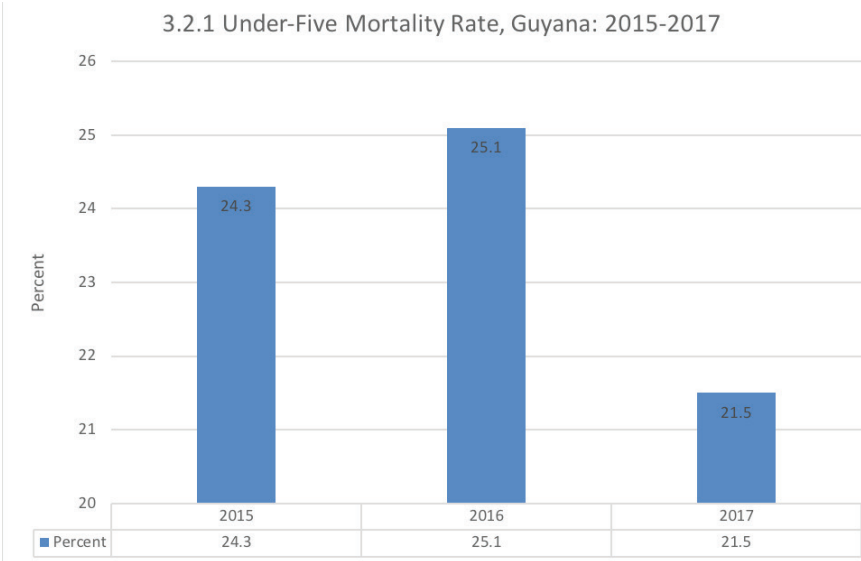
1. Number of women who died during pregnancy
2. Number of live births

Formula: Number of women who died during pregnancy divided by the number of live births multiply by 100,000

Frequency of Calculation: Annually

Source of Data: Ministry of Public Health

GOAL 3:
ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES



Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

Indicator 3.2.1: Under5 mortality rate

Definition of Indicator: The under-5 mortality rate measures the number of children per 1,000 live births who die before their 5th birthday.

Methodology:

Data Requirements:

- 1. Number of children who died under 5 years (0 – 4) of age
- 2. Number of live births

Formula: Number of children dying under 5 years divided by number of live births multiply by 100,000

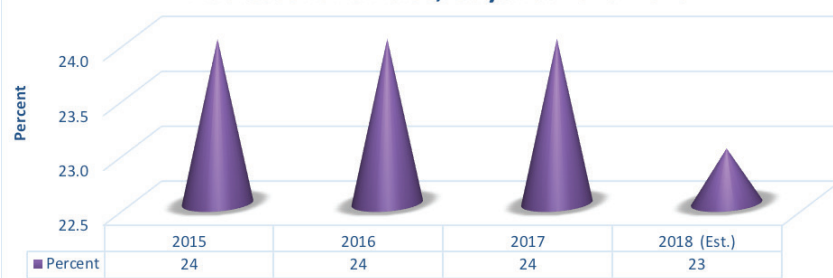
Frequency of Calculation: Annually

Source of Data: Ministry of Public Health

GOAL 3:

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Figure 3.7.2: Percentage of Births Delivered by Adolescent Females, Guyana: 2015-2018



Target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

Indicator 3.7.2: Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group
National Indicator: Percentage of births delivered by adolescent females

Definition of Indicator: This measures the percentage of adolescents (10-19 years) who have begun childbearing.

Methodology:

Data Requirements:

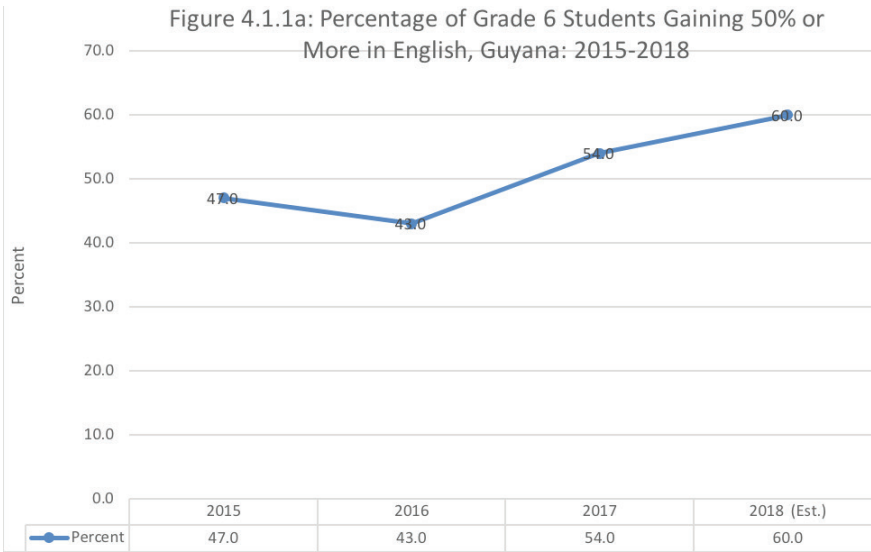
1. Number of births delivered by adolescent females
2. Number of women enrolled in the Ante-Natal Care (ANC) programme

Formula: Total number of adolescents (10-19 years) who are pregnant divided by the total number of women enrolled in the ANC programme during a specified period multiply by 100

Frequency of Calculation: Annually

Source of Data: Ministry of Public Health

GOAL 4:
ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL



Target4.1: By 2030 ensure that all girls and boys have complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Indicator4.1.1:Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

National Indicator: Percentage of Grade 6 students gaining 50% or more in English Language

Definition of Indicator: To determine the extent to which pupils are attaining passes in English at the end of primary.

Methodology:

Data Requirements:

1. Number of students scoring 50% and more in English Language
2. Total number of students writing the National Grade Six Assessment (NGSA)

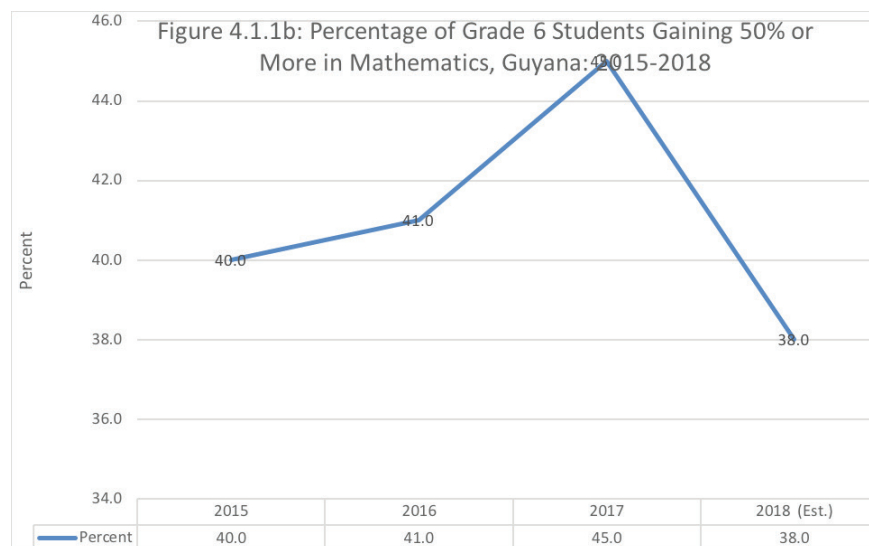
Formula: Number of students scoring 50% and more in English divided by the total number of Students writing the NGSA multiply by 100.

Frequency of Calculation: Annually

Source of Data: Ministry of Education

GOAL 4:

ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL



Target4.1: By 2030, ensure that all girls and boys have complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Indicator4.1.1: Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

National Indicator (b): Percentage of Grade 6 students gaining 50% or more in mathematics

Definition of Indicator: To determine the extent to which pupils are attaining passes in mathematics at the end of primary.

Methodology:**Data Requirements:**

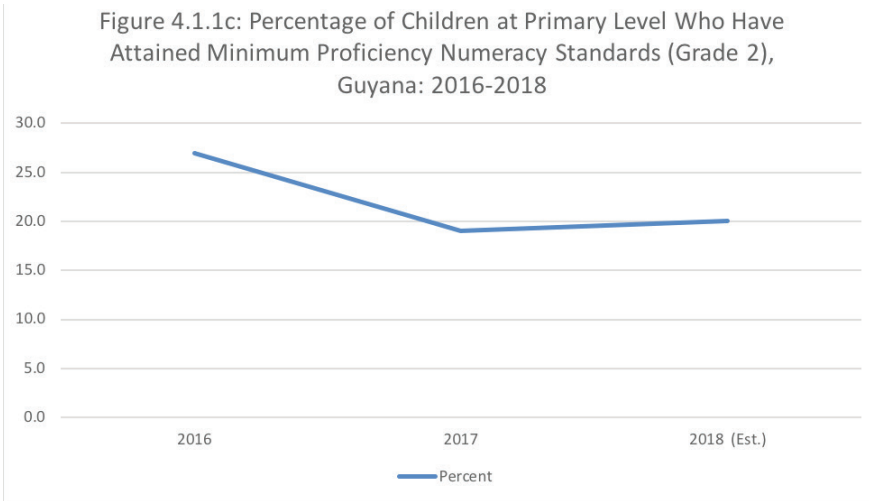
1. Number of students scoring 50% and more in mathematics
2. Total number of students writing the NGSA

Formula: Number of students scoring 50% and more in mathematics divided by the total number of Students writing the NGSA multiply by 100.

Frequency of Calculation: Annually

Source of Data: Ministry of Education

GOAL 4:
ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL



Target4.1: By 2030, ensure that all girls and boys have complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Indicator: 4.1.1: Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

National Indicator (c): Percentage of children at primary level who have attained minimum proficiency numeracy standards (Grade 2)

Definition of Indicator: To determine the extent to which pupils are attaining standards in numeracy.

Methodology:

Data Requirements:

1. Number of children at primary level who have attained numeracy standards
2. Total number of students writing the assessment

Formula: Number of children at the primary level who have attained numeracy standards divided by number of students writing the assessment multiply by 100

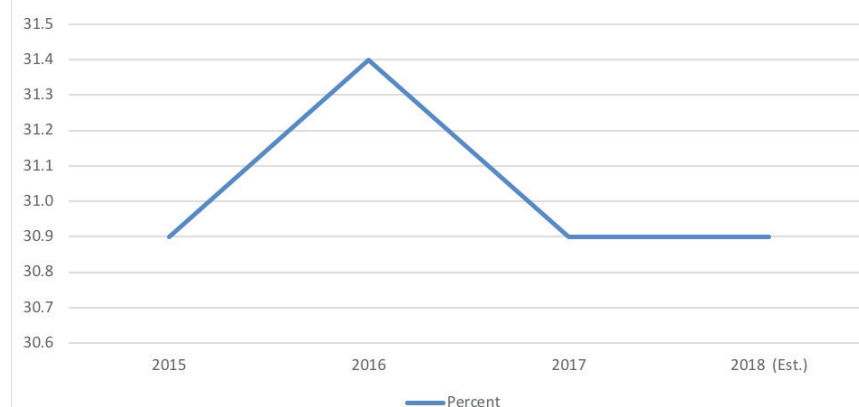
Frequency of Calculation: Annually

Source of Data: Ministry of Education

GOAL 5:

ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

Figure 5.5.1: Proportion of Seats Held by Women in National Parliaments and Local Governments, Guyana: 2015-2018



Target5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Indicator 5.5.1: Proportion of seats held by women in (a) national parliaments and (b) local governments

National Indicator: Proportion of seats held by women in Parliament

Definition of Indicator: This is measured as the share of national parliamentary seats, held by women in a given year.

Methodology:

Data Requirements:

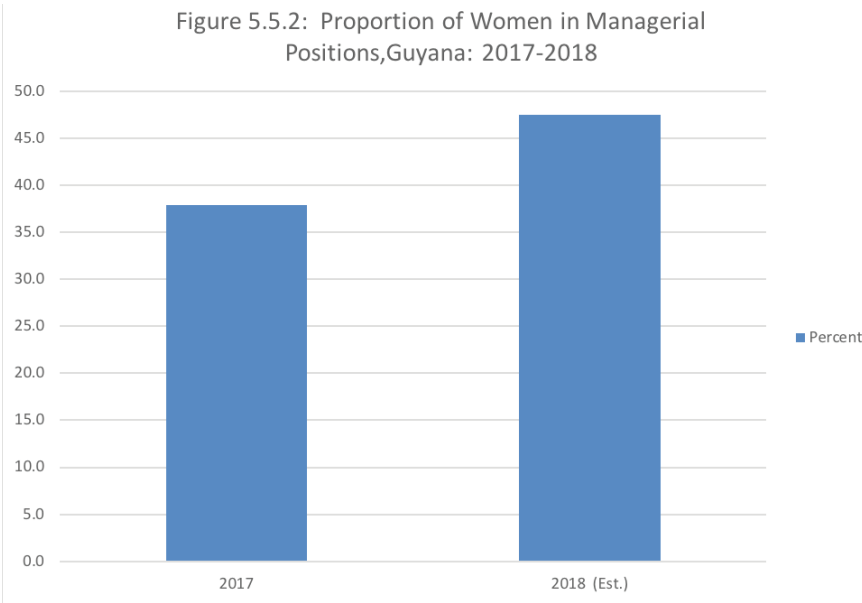
1. Number of seats held by women in Parliament
2. Number of seats in Parliament

Formula: Number of seats held by women in Parliament divided by Number for seats in Parliament multiply by 100

Frequency of Calculation: Annually

Source of Data: Parliament Office

GOAL 5:
ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS



Target5.5: Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

Indicator5.5.2: Proportion of women in managerial positions

Definition of Indicator: This indicator measures the percentage of firms in any given country with a female as the top manager, and the share of middle or senior management positions filled by a female.

Methodology:

Data Requirements:

- 1. Number of female employees in management positions
- 2. Total number of employees in management positions

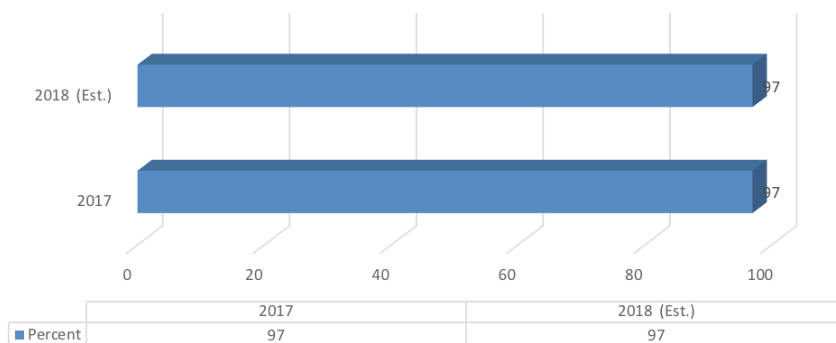
Formula: Number of female employees in management positions divided by the total number of employees in management positions multiply 100

Frequency of Calculation: Quarterly

Source of Data: Bureau of Statistics

GOAL 6:**ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL**

Figure 6.1.1b: Proportion of Coastal Population Receiving Access to Water, Guyana: 2017-2018



Target6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Indicator6.1.1: Proportion of population using safely managed drinking water services

National Indicator: Proportion of coastal population receiving access to water

Definition of Indicator: This is the proportion of the total coastal customers receiving access to water. The coastal customers refers to the customers residing in Regions 2, 3, 4, 5, 6, 7-Bartica & 10 and who reside within areas that have service lines that supplies water produced by GWI.

Methodology:**Data Requirements:**

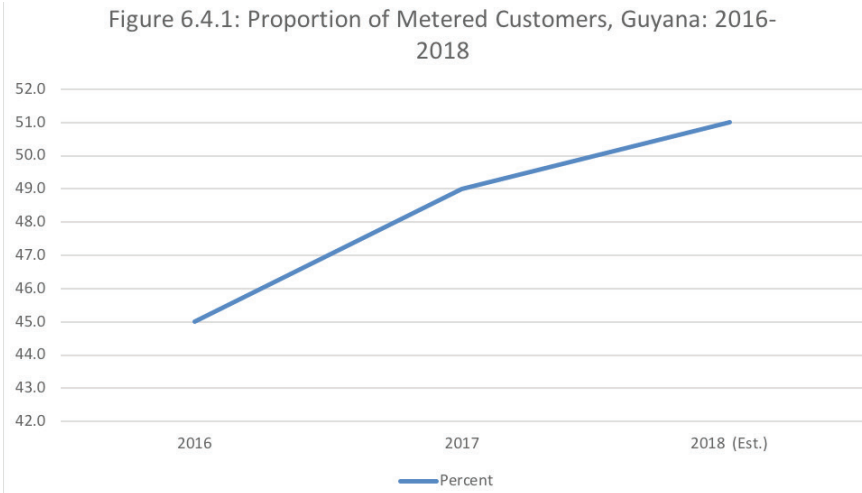
1. Number of coastland customers with access to water
2. Total number of coastland customers

Formula: The number of coastal customers with access to water divided by the total coastal customers

Frequency of Calculation: Annually

Source of Data: Guyana Water Incorporated

GOAL 6:
ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL



Target6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

Indicator6.4.1: Change in water-use efficiency over time

National Indicator: Proportion of metered customers

Definition of Indicator: This is the proportion of the total customers who have meters attached to their piped connections and are billed on a metered tariff approved by the Public Utilities Commission (PUC).

Methodology:

Data Requirements:

- 1. Number of metered customers
- 2. Total number of customers

Formula: The number of metered customers divided by the total number of customers multiply by 100

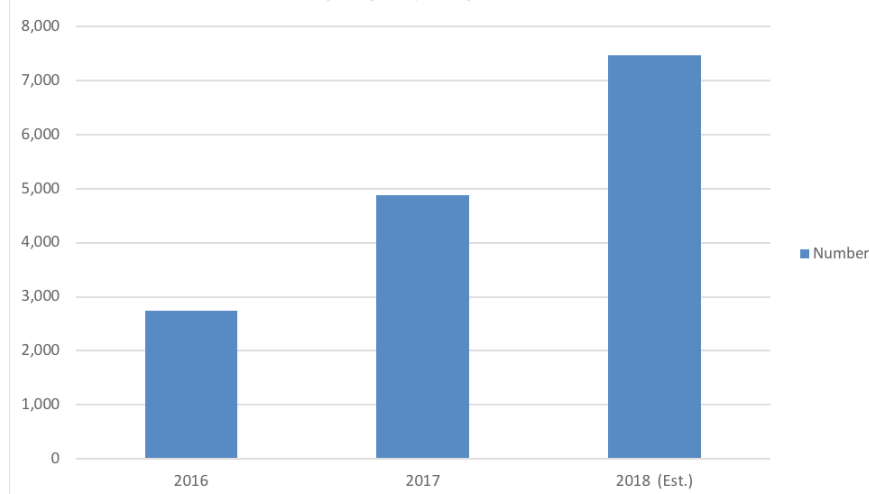
Frequency of Calculation: Annually

Source of Data: Guyana Water Incorporated

GOAL 7:

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Figure 7.1.1: Expand Customer Base (number of new customers added per year), Guyana: 2016-2018



Target7.1: By 2030, ensure universal access to affordable, reliable and modern energy services

Indicator7.1.1: Proportion of population with access to electricity

National Indicator: Expand Customer Base (Number of new customers added in a year)

Definition of Indicator: Expand customer base refers to the number of new customers added to the customer base annually.

Methodology:

Data Requirements:

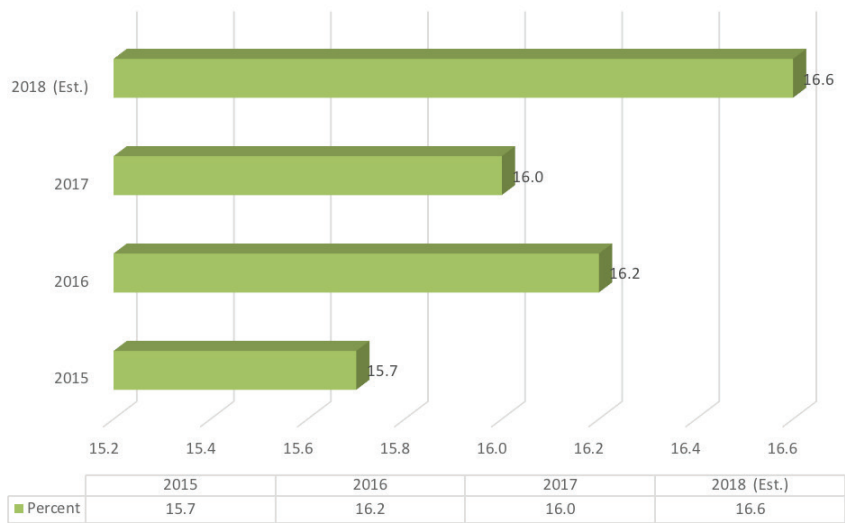
1. Total new installation per annum

Frequency of Calculation: Semi-annual

Source of Data: Guyana Power & Light Incorporated

GOAL 7:
ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Figure 7.2.1: Percentage of Renewable Energy Installed Capacity, Guyana: 2015-2018



Target7.2: By 2030, increase substantially the share of renewable energy in the global energy mix

Indicator7.2.1: Renewable energy share in the total final energy consumption

National Indicator: Percentage of renewable energy installed capacity

Definition of Indicator: Track the level of integration of renewable energy in the Electricity sector. Renewable energy is energy that is derived from natural processes that are replenished at a higher rate than they are consumed (hydropower, solar PV, biomass, wind)

Methodology:

Data Requirements:

- 1. Number of renewable energy installed capacity
- 2. Total number of installed capacity

Formula: Renewable energy installed capacity/Total installed capacity

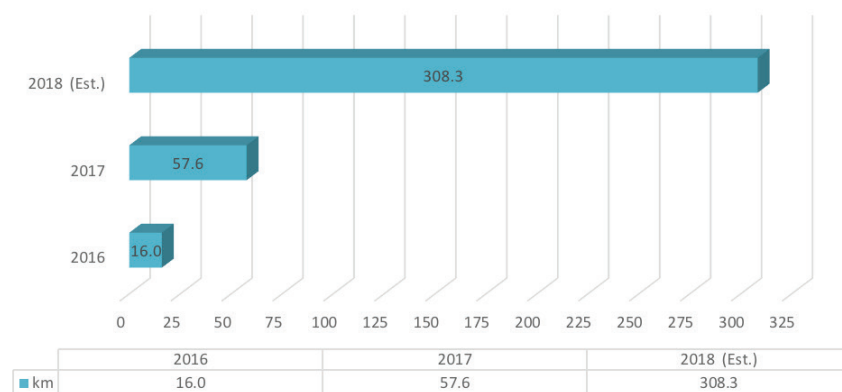
Frequency of Calculation: Annually

Source of Data: Guyana Energy Authority

GOAL 7:

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Figure 7.b.1: Medium and Low Voltage Network Installed and Upgraded, Guyana: 2016-2018



Target7.b: By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, Small Island developing States and landlocked developing countries, in accordance with their respective programmes of support

Indicator7.b.1: Investments in energy efficiency as a percentage of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services

National Indicator: Medium and low voltage network installed and upgraded

Definition of Indicator: Record Length of Distribution Network that has been Installed or Upgraded

Methodology:**Data Requirements:**

1. Length of distribution network installed or upgraded throughout Guyana

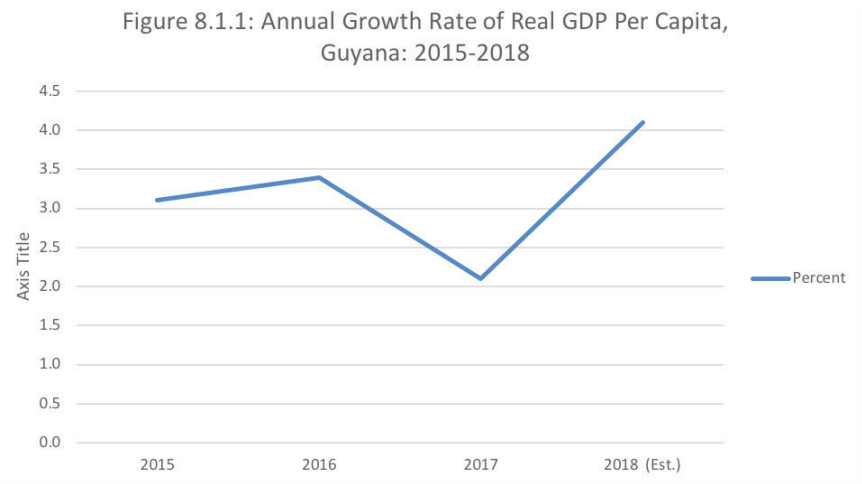
Formula: Record length of distribution network that has been installed or upgraded

Frequency of Calculation: Annually

Source of Data: Guyana Power & Light Incorporated

GOAL 8:

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL



Target8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries

Indicator8.1.1: Annual growth rate of real GDP per capita

Definition of Indicator: The measurement of total economic output of the country divided by its population and adjusted for inflation. It is used to compare the standard of living between countries over time.

Methodology:

Data Requirements:

1. Gross Domestic Product at 2006 Constant Prices
2. Total Population

Formula: Real Gross Domestic Product divided by Total population

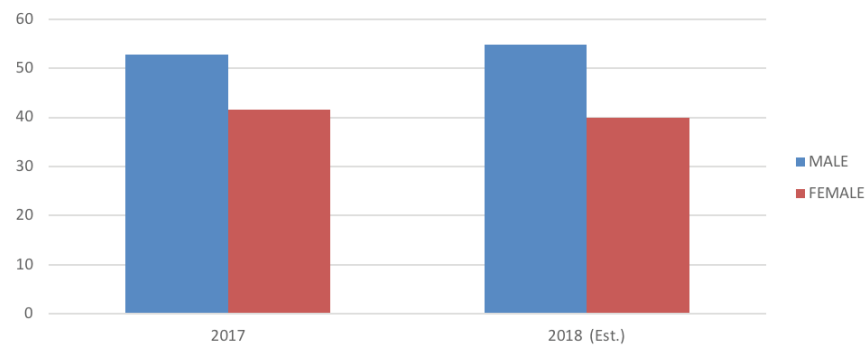
Frequency of Calculation: Annually

Source of Data: Bureau of Statistics

GOAL 8:

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Figure 8.3.1: Proportion Of Informal Employment In Non-Agriculture Employment, By Sex, Guyana: 2017-2018



Target8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

Indicator8.3.1: Proportion of informal employment in non-agriculture employment, by sex

Definition of Indicator: This is measured as employment in the informal economy as a percentage of total non-agricultural employment. This includes all jobs in unregistered and/or small-scale private unincorporated enterprises that produce goods or services meant for sale or barter.

Methodology:**Data Requirements:**

1. Number of persons 15 years and over whose main or secondary employment is in informal non-agricultural activities. This group of persons comprises of Own-account workers, contributing family workers, employees holding informal jobs, employers and members of producers' cooperatives employed in the informal sector.
2. Total employment in non-agricultural activities (15 years and over)

Formula:
$$\frac{\text{Informal employment in non-agricultural activities}}{\text{Total employment in non-agricultural activities}} \times 100$$

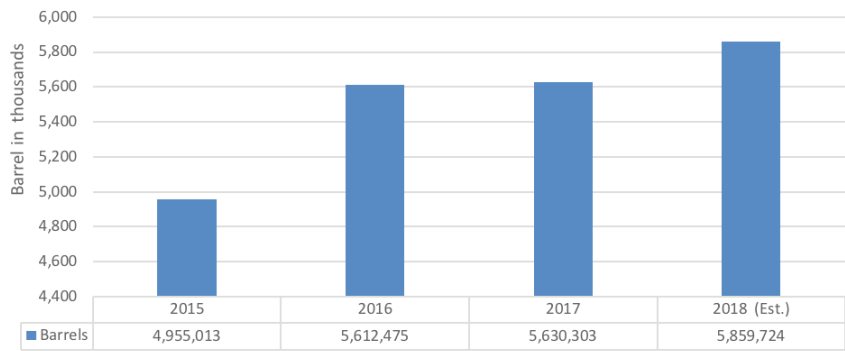
Frequency of Calculation: Quarterly

Source of Data: Bureau of Statistics

GOAL 8:

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Figure 8.4.2b: Level Of Fossil Fuel Consumption (in barrel, Guyana: 2015-2018



Target 8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead

Indicator8.4.2: Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP

National Indicator: Level of fossil fuel consumption

Definition of Indicator: Consumption of petroleum based derivatives for energy use (Gasoline, Diesel, Kerosene, Jet Fuel, Fuel oil, Aviation gasoline, Liquefied Petroleum Gas (LPG)&Liquefied Natural Gas(LNG)

Methodology:

Data Requirements:

- 1. Number of barrels consumed for petroleum derivatives (gasoline, diesel, kerosene, jet fuel oil, aviation gasoline, LPG & LNG)

Formula: Sum of gasoline, diesel, kerosene, jet fuel, aviation gasoline, LPG & LNG (Consumption in barrels)

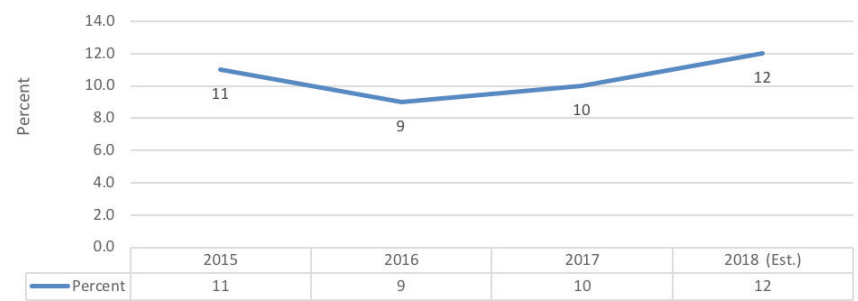
Frequency of Calculation: Annually

Source of Data: Guyana Energy Authority

GOAL 9:

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

Figure 9.2.1: Manufacturing Value Added as a Proportion of GDP, Guyana: 2015-2018



Target9.2: Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

Indicator 9.2.1: Manufacturing value added as a proportion of GDP and per capita

National Indicator: Manufacturing value added as a proportion of GDP

Definition of Indicator: This indicator measures the manufacturing sector's contribution to a country's total gross domestic product (GDP). Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs in manufacturing production.

Methodology:

Data Requirements:

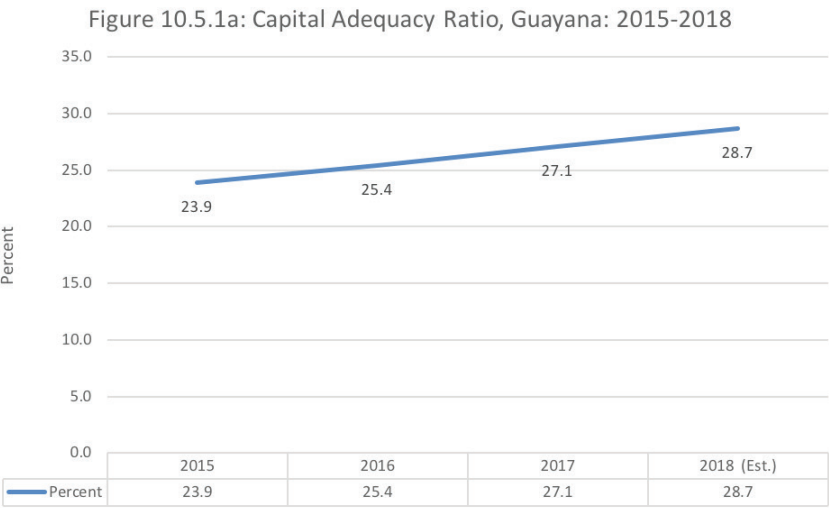
1. Manufacturing Value Added
2. Gross Domestic Product at 2006 Constant Prices

Formula: Manufacturing Value Added divided by Gross Domestic Product at Constant Prices multiply by 100

Frequency of Calculation: Annually

Source of Data: Bureau of Statistics

GOAL 10:
REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES



Target10.5: Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

Indicator 10.5.1: Financial Soundness Indicators

National Indicator: Capital Adequacy Ratio (CAR)

Definition of Indicator: The CAR is a measurement of a bank’s available capital expressed as a percentage of its risk-weighted assets.

Methodology:

Data Requirements:

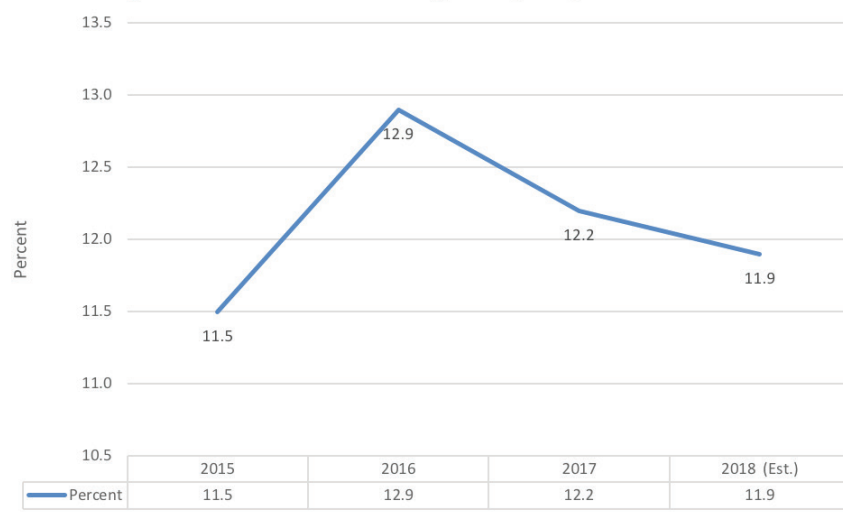
- 1. Available capital
- 2. Total risk weighted assets after deductions

Formula: Qualifying Capital divided by Total risk weighted assets after deduction multiply by 100
Frequency of Calculation: Monthly

Source of Data: Bank of Guyana

GOAL 10:**REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES**

Figure 10.5.1b: Non-Performing Loans, Guayana: 2015-2018



Target10.5: Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

Indicator 10.5.1: Financial Soundness Indicators

National Indicator: Non-Performing Loans

Definition of Indicator: This indicator measures the percentage of an institution's total loan portfolio that is non-performing. A non-performing loan refers to a loan or an account with fixed repayment dates where the principal or interest is due and unpaid for three months or more; or interest charges for three months or more have been capitalised, refinanced, or rolled-over.

Methodology:

Data Requirements:

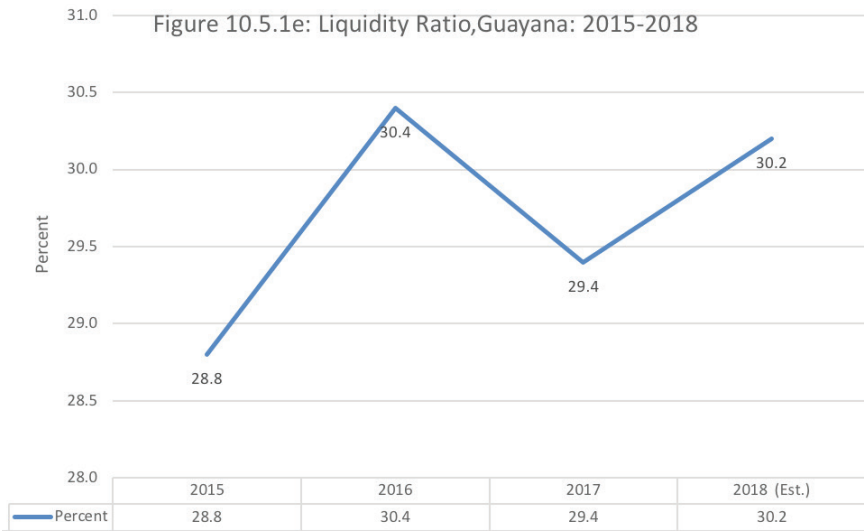
1. Number of non-performing loans
2. Total loans

Formula: Non-Performing Loans) divided by Total Loans multiply by 100

Frequency of Calculation: Quarterly

Source of Data: Bank of Guyana

GOAL 10:
REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES



Target10.5: Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

Indicator 10.5.1: Financial Soundness Indicators

National Indicator: Liquidity Ratio

Definition of Indicator: This indicator measures the level of liquid assets available (liquid assets as defined by Section 21 (3) of the Financial Institutions Act (FIA) 1995) as a percentage of the total demand and time liabilities of that institution (as defined by the Bank of Guyana Circular No. 52/98).

Methodology:

Data Requirements:

- 1. Available liquid assets
- 2. Total demand and liabilities

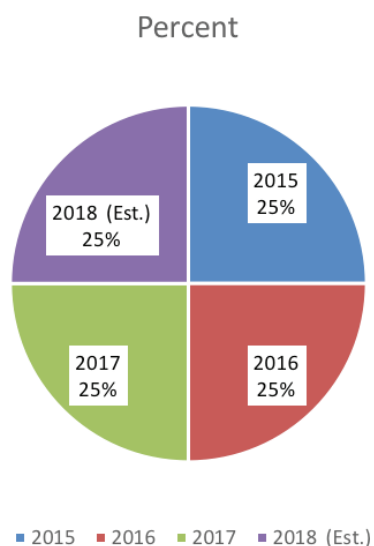
Formula: Available liquid assets divided by total demand &time liabilities multiply by 100

Frequency of Calculation: Monthly

Source of Data: Bank of Guyana

GOAL 15:

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS



Target15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and dry lands, in line with obligations under international agreements

Indicator 15.1.1: Forest area as a proportion of total land area

Definition of Indicator: Total forest coverage as a proportion of total land area

Methodology:**Data Requirements:**

1. Total forest area for the specific reference year
2. Total land area for the specific reference year

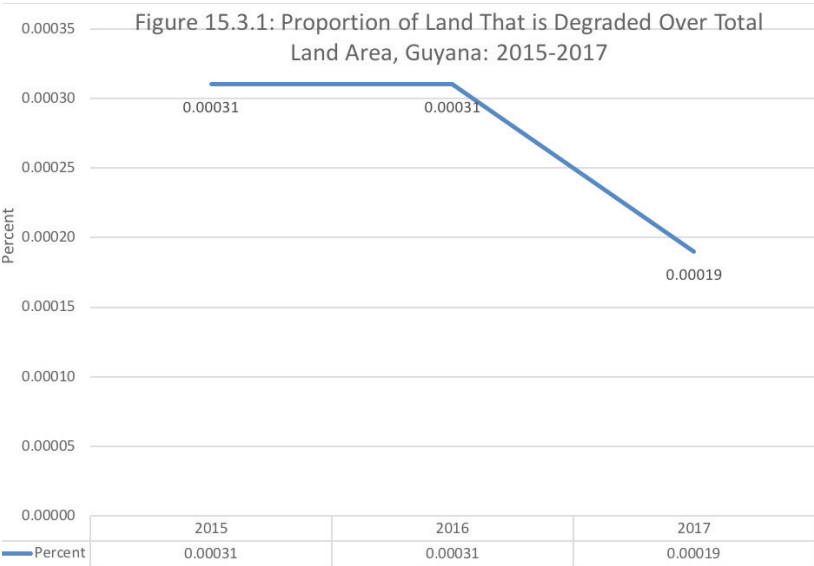
Formula: Total forest area divided by total land area multiply by 100

Frequency of Calculation: Annually

Source of Data: Guyana Forestry Commission

GOAL 15:

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS



Target15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

Indicator 15.3.1: Proportion of land that is degraded over total land area

National Indicator: Proportion of forest land degraded over total forest cover

Definition of Indicator: Land degradation is defined as the reduction or loss of the biological or economic productivity and complexity of rain fed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from a combination of pressures, including land use and management practices. This definition was adopted by and is used by the 196 countries that are Party to the UNCCD¹.

Land Degradation Neutrality (LDN) is defined as a state whereby the amount and quality of land resources necessary to support ecosystem functions and services and enhance food security remain stable or increase within specified temporal and spatial scales and ecosystems (decision 3/COP12)².

Total land area is the total surface area of a country excluding the area covered by inland waters, like major rivers and lakes³.

Methodology:

Data Requirements:

- 1. A (Degraded)_{i,n} is the total area degraded in the land cover class i in the year of monitoring n (ha);
- 2. Arecent_{i,n} is the area defined as degraded in the current monitoring year following 1OAO assessment of the sub-indicators (ha);
- 3. Apersistent_{i,n} is the area previously defined as degraded which remains degraded in the monitoring year following the 1OAO assessment of the sub-indicators (ha)

Formula: $A(\text{Degraded})_{i,n} = \sum_{j=1}^n \text{Arecent}_{i,n} + \text{Apersistent}_{i,n}$

Frequency of Calculation: Annually

Source of Data: Guyana Forestry Commission

1 <https://unstats.un.org/sdgs/metadata/?Text=&Goal=&Target=15.3>

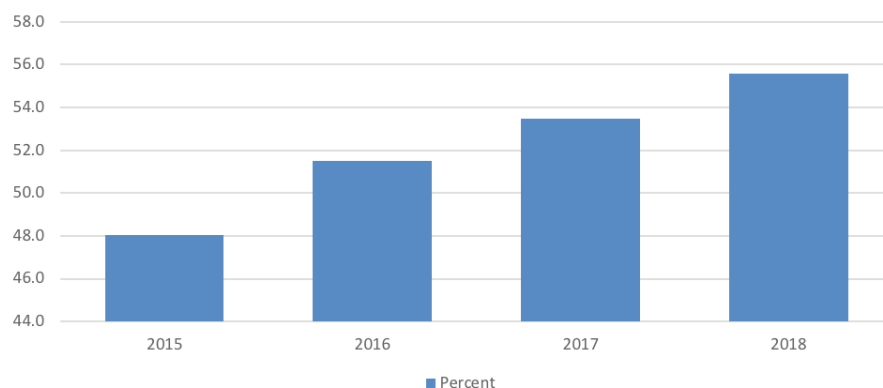
2 <https://unstats.un.org/sdgs/metadata/?Text=&Goal=&Target=15.3>

3 <https://unstats.un.org/sdgs/metadata/?Text=&Goal=&Target=15.3>

GOAL 17:

STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

17.1.1: Total Government Revenue As A Proportion Of GDP, By Source, Guyana: 2015-2018



Target17.1: Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

Indicator17.1.1: Total government revenue as a proportion of GDP, by source

National Indicator: Total government revenue as a proportion of GDP

Definition of indicators: Total tax revenue as a percentage of GDP indicates the share of a country of a country's output that is collected by the government through taxes⁴.

Methodology:

Data Requirements:

1. Total tax revenue
2. Gross Domestic Product at 2006 Constant Prices

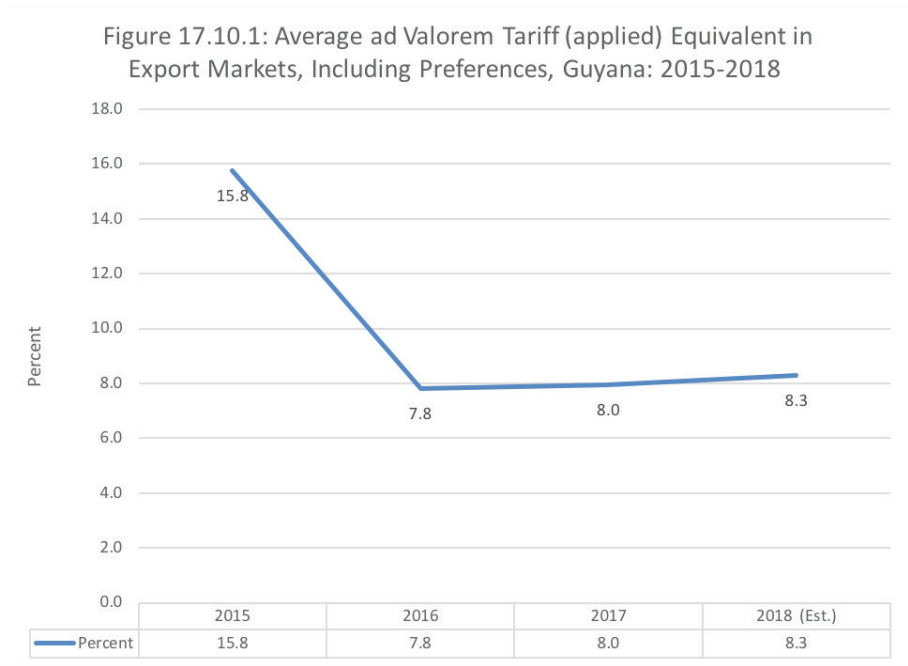
Formula: Total tax revenue divided by GDP multiply by 100

Frequency of Calculation: Annually

Source of Data: Bureau of Statistics

⁴<https://data.oecd.org/tax/tax-revenue.htm>

GOAL 17:
STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT



Target17.10: Promote a universal, rules-based, open, nondiscriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

Indicator17.10.1: Worldwide weighted tariff-average

National Indicator: Average Ad Valorem tariff (applied) equivalent in export markets, including preferences

Definition of Indicator: Worldwide weighted tariff-average

Methodology:

Data Requirements:

1. Number of Tariff lines removed

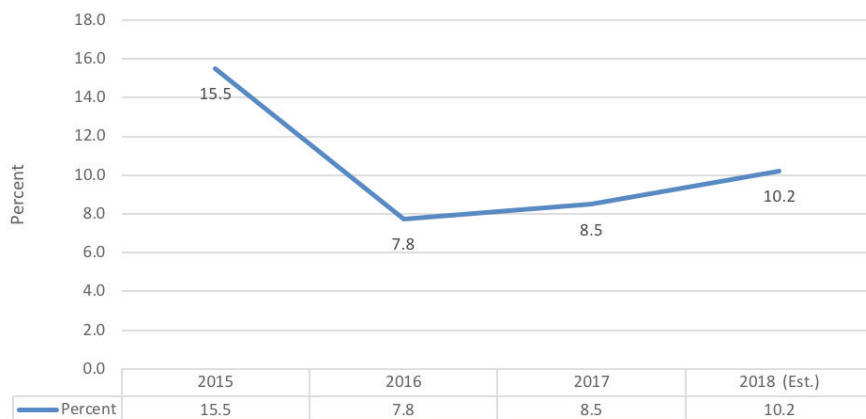
Frequency of Calculation: Semi-annually

Source of Data: Ministry of Foreign Affairs

GOAL 17:

STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Figure 17.12.1: Max Applied Tariffs, Average Across All Products and Export Markets, Including Preferences, Guyana: 2015-2018



Target 17.12: Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

Indicator 17.12.1: Average tariffs faced by developing countries, least developed countries and Small Island developing States

National Indicator: Max applied tariffs, average across all products and export markets, including preferences

Definition of Indicator: Average tariffs faced by developing countries, least developed countries and small island developing States

Methodology:

Data Requirements:

1. Number of tariff lines removed

Frequency of Calculation: Semi-annually

Source of Data: Ministry of Foreign Affairs



Ministry of Finance

49 Main & Urquhart Streets,
Georgetown
Guyana.

www.finance.gov.gy