Government of the
Co-operative Republic of Guyana


# GUYANA

## Second Voluntary National Review of the SDGs

presented at the UN High Level Political Forum
on Sustainable Development

JULY 2023

SUSTAINABLE DEVELOPMENT GOALS


**Ministry of Finance**

49 Main and Urquhart Streets, Georgetown,
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# SECOND VOLUNTARY NATIONAL REVIEW OF THE SDGs

## One Guyana: Achieving Low-Carbon Sustainable Development For All

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| | |
|---|---|
| **ACTO** | Amazon Cooperation Treaty Organisation |
| **ASDU** | Agriculture Sector Development Unit |
| **AQI** | Air Quality Index |
| **CARICOM** | Caribbean Community |
| **CBDRM** | Community Based Disaster Risk Management |
| **CDC** | Civil Defence Commission |
| **CDEMA** | Caribbean Disaster Emergency Management Agency |
| **CDM** | Comprehensive Disaster Management |
| **CDMCWP** | Comprehensive Disaster Management Country Work Programme |
| **CHPA** | Central Housing and Planning Authority |
| **COVID-19** | Coronavirus disease 2019 |
| **CWP** | Country Work Programme |
| **DANA** | Damage Assessment and Needs Analysis |
| **DC** | Direct Current |
| **DER** | Distributed Energy Resource |
| **DRM** | Disaster Risk Management |
| **DRR** | Disaster Risk Reduction |
| **EIA** | Environmental Impact Assessment |
| **EIWG** | Guyana Energy Programme Implementation Working Group |
| **EPA** | Environmental Protection Agency |
| **FAO** | Food and Agriculture Organisation |
| **GEA** | Guyana Energy Agency |
| **GEF - CReW +** | Global Environment Facility-Caribbean Regional Fund for Wastewater Management |
| **GIZ** | Gesellschaftfür Internationale Zusammenarbeit |
| **GLSC** | Guyana Lands and Surveys |
| **GMSA** | Guyana Manufacturing and Services Association |
| **GNBS** | Guyana National Bureau of Standards |
| **GNCC** | Guyana National Control Centre |
| **GPAS** | Guyana Protected Areas System |
| **GPL** | Guyana Power and Light |
| **GRA** | Guyana Revenue Authority |
| **GRDB** | Guyana Rice Development Board |
| **GSS** | Georgetown Sewerage System |
| **GUYSUCO** | Guyana Sugar Corporation |
| **GW** | Gigawatt |
| **GWI** | Guyana Water Incorporated |
| **HBSL** | Haags Bosch Sanitary Landfill |
| **HCAF** | Home Construction Assistance Facility |
| **HCAP** | Home Construction Assistance Programme |
| **HFO** | Heavy Fuel Oil |
| **HLPF** | High-Level Political Forum |
| **IACM** | Inter-Agency Coordinating Mechanism |
| **ICAT** | Indicator Collection and Assessment Tool |
| **ICT** | Information and Communication Technologies |
| **IP** | Internet Protocol |
| **ISO** | International Organisation for Standardisation |
| **IT** | Information Technology |
| **IWRM** | Integrated Water Resource Management |
| **JMP** | Joint Monitoring Program |
| **KAPA** | Kanashen Amerindian Protected Area |
| **KMPA** | Kanuku Mountains Protected Area |
| **KNP** | Kaieteur National Park |
| **kV** | Kilovolt |
| **LCDS** | Low Carbon Development Strategy |
| **LDO** | Local Democratic Organ |

| | |
|---|---|
| **LED** | Light-emitting diode |
| **LHS** | Lethem Housing Subsidy |
| **LTE** | Long Term Evolution |
| **m3** | Cubic meter |
| **M&E** | Monitoring and Evaluation |
| **MIR** | Mortgage Interest Relief |
| **MoF** | Ministry of Finance |
| **MOFAIC** | Ministry of Foreign Affairs and International Cooperation |
| **MPAG** | Ministry of Parliamentary Affairs and Governance |
| **MoPW** | Ministry of Public Works |
| **Mm** | Millimetre |
| **MSME** | Micro, Small and Medium Enterprises |
| **MSSC** | Multi-stakeholder Steering Committee |
| **MW** | Megawatt |
| **MV** | Motor Vessel |
| **NACEN** | National Advisory Committee on External Negotiations |
| **NAREI** | National Agricultural Research and Extension Institute |
| **NBS** | New Building Society |
| **NDC** | Neighbourhood Democratic Council |
| **NDPBA** | National Disaster Preparedness Baseline Assessment |
| **NGO** | Non-Governmental Organisation |
| **NICIL** | National Industrial and Commercial Investments Limited |
| **NIS** | National Insurance Scheme |
| **NPAS** | National Protected Areas System |
| **NRW** | Non-revenue water |
| **NTC** | National Toshaos Council |
| **NWC** | National Water Council |
| **NWSP** | National Water Sector Policy |
| **OECD** | Organisation of Eastern Caribbean States |
| **PA** | Protected Area |
| **PAC** | Protected Areas Commission |
| **PATF** | Protected Areas Trust Fund |
| **PM** | Particulate Matter |
| **PV** | Photovoltaic |
| **RDRMS** | Regional Disaster Risk Management Systems |
| **SBB** | Small Business Bureau |
| **SBPA** | Shell Beach Protected Area |
| **SDG** | Sustainable Development Goal |
| **SIDS** | Small Island Developing States |
| **SWM** | Solid Waste Management |
| **T&D** | Transmission and Distribution |
| **TVET** | Technical and vocational education training |
| **UN DESA** | United Nations Department of Economic and Social Affairs |
| **UNDP** | United Nations Development Programme |
| **UNESCO** | United Nations Educational, Scientific and Cultural Organization |
| **UNICEF** | United Nations Children's Fund |
| **US** | United States |
| **USD/kWh** | US dollar per kilowatt-hour |
| **VAT** | Value Added Tax |
| **VC** | Volunteer Corps |
| **VNR** | Voluntary National Review |
| **VSP** | Village Sustainability Plan |
| **WASH** | Water Sanitation and Hygiene |
| **WHO** | World Health Organisation |
| **WIIN** | Women's Innovation and Investment Network |
| **WSSIIP** | Water Supply and Sanitation Infrastructure Improvement Programme |
| **WSSSP** | Water and Sanitation Sector Strategic Plan |

# STATEMENT FROM HIS EXCELLENCY THE PRESIDENT

**His Excellency Dr. Mohamed Irfaan Ali**
*President of the Co-operative Republic of Guyana*

On behalf of the People of the Co-operative Republic of Guyana, I am honoured to present Guyana's Second VNR of the implementation of the SDGs under review at the 2023 High-Level Political Forum (HLPF). Guyana's Second VNR provides a recount of the combined efforts of all stakeholders over recent years to ensure that Guyana is on track to attaining the SDGs, which were adopted by the 193 Member States of the United Nations, including Guyana in 2015. Guyana recognises that the SDGs are interconnected and thus their implementation requires collaboration, coordination, and coherence among all stakeholders for their achievement. As such, Guyana continues to identify and capitalise on these interlinkages to accelerate the achievement of the SDGs.

Guyana is committed to confronting the triple challenges of food security, energy security and climate security and is implementing transformational initiatives to address these global issues through national efforts and global partnerships. Moreover, Guyana has had unique challenges over recent years including a prolonged challenge to democracy in 2020, combined with the onslaught of the Coronavirus disease 2019 (COVID-19), even as we continued to grapple with worsening impacts of climate change. As a nation we persevered and have emerged stronger in our resolve to achieve an improved quality of life, consistent with the SDGs, and an ambitious national development agenda informed by our Low Carbon Development Strategy (LCDS) 2030.

This report provides an in-depth insight of Guyana's progress within the highlighted Goals for HLPF 2023. Ensuring that no one is left behind as we strive to achieve the ideals of "One Guyana" on a low carbon, sustainable development path is our clear vision. "One Guyana" represents unity among the ethnic groups and cultures of the People of Guyana, who are at the centre of the development process. Our LCDS presents the framework for Guyana to be compensated for its carbon services, through the maintenance of our vast, standing forests, even as Guyana commits to ensuring that our resource endowments are utilised to improve the lives of all Guyanese.

Guyana's infrastructural landscape is transforming through the construction of roads, bridges, port facilities, hospitals, schools, police stations, hotels, water treatment plants, food processing facilities, solar farms, hydropower plants, and drainage and irrigation structures. This will help bridge the geographical and socio-economic gaps within Guyana, between the hinterland and the coast, as well as between Guyana and the developed world. Our people - the core of Guyana's human capital - along our coast and the hinterland must have equal access to quality social services as part of

their basic human rights and opportunities for their development. Guyanese must enjoy a quality of life that is second to none. Inclusivity is a critical component of Guyana's development model and Guyana continues to ensure that its people are meaningfully consulted in its development process.

Guyana looks positively ahead to 2030, taking cognisance of the gains that have been made, the challenges that were overcome, the work that must continue and resources that must be dedicated to ensuring that the SDGs are achieved. Guyana will continue to further its social, economic, and environmental development and remain ever cognizant of the priorities of People, Planet, Prosperity, Peace, and Partnership.

Global solidarity and strident recommitment to the Decade of Action are imperative. The recent Bridgetown Initiative is a welcomed and timely intervention that would see reforms to the global financial architecture that would contribute to meaningful development for developing countries.

My Government's priorities are aligned with the SDGs, as we seek as part of a global community to ensure that we leave no one behind. As a nation, and together with our global family of nations, achieving sustainable development for all must remain our guiding light.

**His Excellency Dr. Mohamed Irfaan Ali**
President of the Co-operative Republic of Guyana

# STATEMENT FROM SENIOR MINISTER IN THE OFFICE OF THE PRESIDENT WITH RESPONSIBILITY FOR FINANCE

**Hon. Dr. Ashni Singh, M.P.**
*Senior Minister in the Office of the President with Responsibility for Finance*
*Co-operative Republic of Guyana*

HLPF 2023 is being convened under the theme "Accelerating the recovery from the Coronavirus disease (COVID-19) and the full implementation of the 2030 Agenda". This thematic focus affords Guyana the platform to share how we have managed our economy and shaped public policy to overcome the myriad of setbacks of recent years as we seek to achieve Agenda 2030. Dynamic leadership, prudent economic management, transformational policies and strategies, continuous consultation and collaboration with stakeholders have placed Guyana in a position to be better able to contain any lasting adverse consequences brought on by the pandemic, the 2021 floods and the 2020 elections, amongst other challenges. Collectively, these threats tested Guyana's resolve and demonstrated the value of global, hemispheric and regional solidarity in confronting the pressing issues of our time.

VNR 2023 is being presented at a time when the world has not fully recovered from the impacts of the COVID-19 pandemic, including the global increases in commodity prices and freight charges and supply-chain distortions, which worsened after the Russian invasion of Ukraine. Despite this testing global environment, Guyana's economic and social transformation is underway. In May 2015, Guyana announced the discovery of commercial quantities of oil and by July 2016, Guyana was graduated to an upper middle-income country. Oil production commenced in December 2019, and has provided much needed financing for Guyana's transformation. More importantly, Guyana now has to fight the double threat of the middle-income trap and the resource curse. Guyana's Natural Resource Fund has provided a means of addressing these threats, in addition to the policies and plans, and legislative and institutional frameworks that are in place to realise Government's strategic objectives towards achieving the SDGs. At the same time, Guyana is at the forefront of global efforts to fight climate change by monetising the climate services provided by our pristine standing rainforests. Guyana is continuing the sale of its carbon services to further bolster its fiscal resources to deliver on these Goals. These additional revenue streams have allowed Guyana to increase annual budgetary allocations in order to fund the transformative projects needed to leap-frog Guyana's development.

Our agenda for the medium-term emphasises preservation of our country's standing forests, rapid expansion of our infrastructural stock, investing for human capital development, food security, and technological reform of systems to deliver quality public services. Within the context of the reviewed SDGs of HLPF 2023, Guyana's charted course includes expansion of treated water coverage and construction of a wastewater treatment facility in keeping with international standards; transition to 60 percent renewable energy and reduction of the cost of energy for productive activity and household consumption; expansion of the transport and digital networks, and improved access to affordable housing and incorporation of the Urban Agenda, which are only a fraction of the critical initiatives that Guyana is implementing to achieve the SDGs.

The preparation of this VNR has also allowed Guyana to review and reflect on its progress since adopting the SDGs and identify the revisions that are needed to course-correct where necessary, to foster accelerated implementation of the 17 SDGs. Despite the many economic, social, and environmental difficulties and uncertainties that face us, Guyana remains resolute in its commitment to forge ahead, and overcome these obstacles on the development path for a better and more equitable future for all. At the same time, there is urgent need for critical reforms to the global financial architecture in order to unlock increased resources. Against this backdrop, we call upon the developed world to redouble its efforts to ensure that the financial commitments made to support countries such as Guyana, which go as far back as 50 years, are met with urgency. As a community of nations, our achievement of the SDGs is contingent on tangible partnerships for the prosperity of our people and the planet.

The compilation of Guyana's Second VNR of the SDGs reflects the collective efforts of the technical teams within several agencies across Government, particularly those who participated in the meetings of the Inter- Agency Coordinating Mechanism (IACM) and the many iterations over recent months. To our small and dedicated technical review committee for the long hours and attention to detail, our gratitude. Moreover, this VNR is a reflection of the actions at both policy and programme levels, and commitment of technical teams in actually implementing programmes and initiatives that have allowed Guyana to record measurable progress towards the 2030 Agenda.

**Hon. Dr. Ashni Singh, M.P.**
Senior Minister in the Office of the President
with Responsibility for Finance

# 1. HIGHLIGHTS

## The VNR Review Process

The UN resolution dated 25 June 2021 stated "For the remainder of the current cycle of the high-level political forum convened under the auspices of the Economic and Social Council, the sets of Sustainable Development Goals to be reviewed in-depth shall be… For 2023: Goals 6, 7, 9, 11 and 17". In keeping with this, Guyana's Second VNR affords a more detailed examination of Goals 6, 7, 9, 11 and 17, than in the first VNR. In preparing for the 2023 VNR process, Guyana completed what could have been a nine-to-twelve-month review process in just under three months, with the launch on April 19 through the formation of the IACM comprising several Ministries including the Ministry of Finance (MoF), Ministry of Foreign Affairs and International Cooperation (MOFAIC) and the Ministry of Parliamentary Affairs and Governance (MPAG).

Extensive stakeholder engagements were undertaken including two high-level VNR national consultations. The first consultation was a whole day civil society engagement and the second, a hinterland engagement that saw approximately 130 village leaders interact with Ministers and technical teams with responsibility for implementing programmes under the highlighted Goals.

A senior technical team within the MoF was assigned to work with focal points and technical teams across various Ministries to support drafting, editing, revising and ultimately finalising the Report. Having incorporated many of the SDG or related national indicators into the national budget process, as seen in Figure 1 below, the VNR process was able to benefit from prior awareness across government agencies and close alignment to national and sectoral priorities. Efforts at improving data collection and tracking have resulted in improvements in Guyana's ability to report on the Targets and Indicators within the SDGs.

Going forward, for Goals outside the five (5) highlighted in this Second VNR, several agencies have already signalled interest in completing mini–Goal specific VNRs.

**Incorporation of SDGs into Guyana's Budget Cycle**

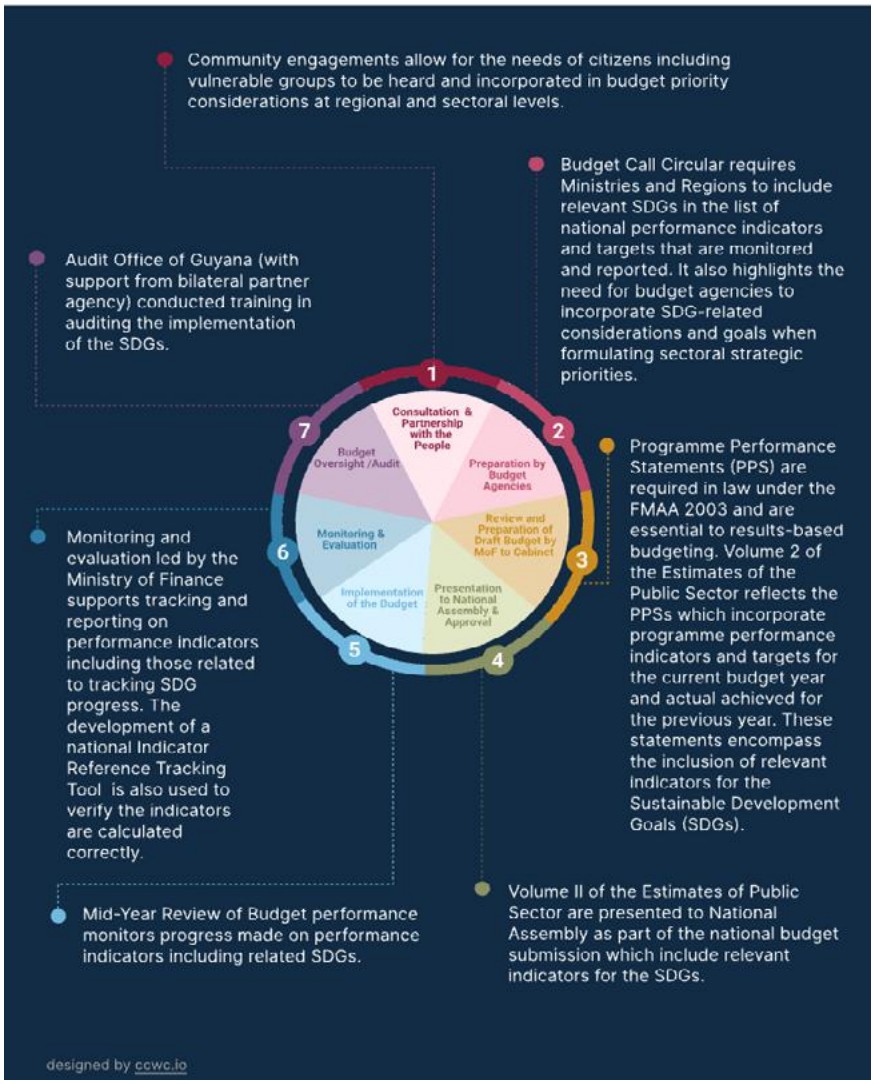


**Figure 1:** Incorporation of SDGs into Guyana's Budget Cycle

## 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 2023, Guyana recorded an improved score of 67.4 compared with 61.9 in 2018. This improvement in the score facilitated upward movement in the ranking to 96 out of 166 countries in 2023, up from 104 out of 156 countries in 2018. 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 67.4 suggests that the country is on average 67 percent of the way to the best possible outcomes across the 17 SDGs. The Latin America and Caribbean region's average score is 70.2, see Figure 2 below.

One of the notable findings of the recent Sustainable Development Report of 2023 of particular concern to Guyana and other SIDS is that while *"HICs are able to mobilize vast financial resources very quickly, as seen during the 2008 financial crisis, the pandemic, and the war in Ukraine. Yet they are not prepared to mobilize such resources for global sustainable development, despite the urgency and previous promises regarding development assistance and climate financing."*

Actions for progress to attain the 17 goals will not be possible, let alone sustainable without effective partnerships. The US$100 billion pledged annually for climate finance has seen over a decade elapse without attaining this small amount for addressing an existential crisis, and yet individual global private sector companies reported profits record of similar and higher amounts on an annual basis. It is clear that an introspective examination of effective partnerships is needed at the global level. In like manner, the 0.7 percent GNI annual pledge remains unfulfilled over 5 decades after its declaration.

**GUYANA**
Latin America and the Caribbean
**OVERALL PERFORMANCE**

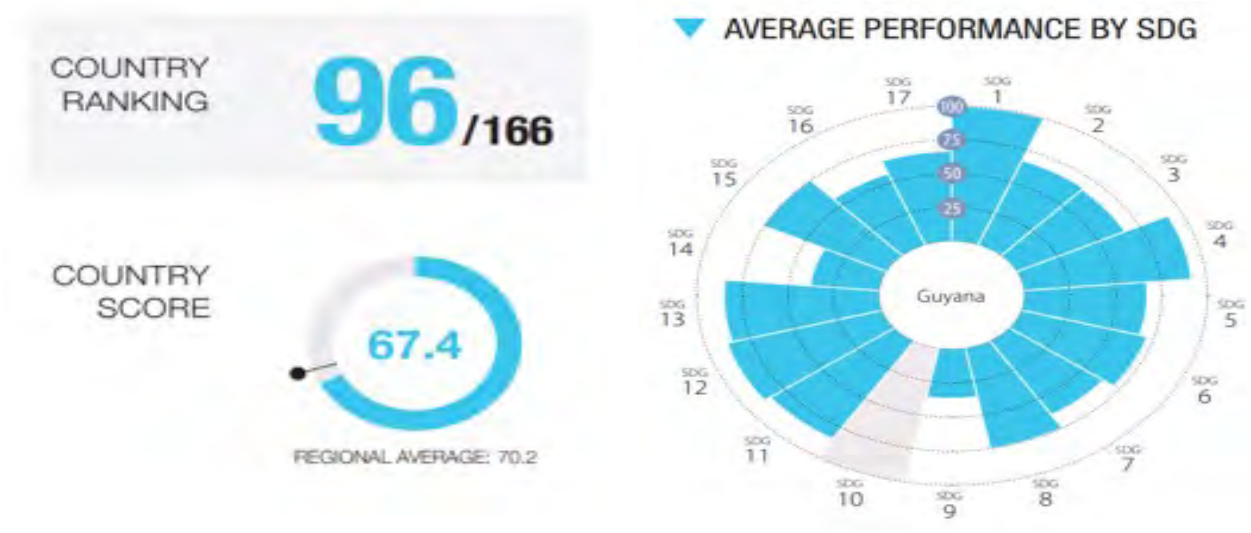


**Figure 2:** Guyana's Performance on SDGs, Sustainable Development Report 2023

## Leaving No One Behind

Over the last two years, as we have emerged from the pandemic, additional support has been provided to our vulnerable groups including the differently abled, women, youth and the elderly.

In relation to Goal 6, in 2020, Value Added Tax (VAT) was removed on water charges, and over 28,000 pensioners are now receiving free water supply up to 10m3 of water per month, which is fully subsidised by Government to the tune of $523 million annually. Additionally, in 2021, water tariffs across all categories of consumers were reduced by five (5)

percent benefitting over 175,000 customers, with the aim of providing economic relief to the population, as part of the national recovery measures from the pandemic. Further, more than 30,000 persons in the hinterland received access to potable water supply for the first time increasing the proportion of hinterland population with access to safe water supply significantly from 33.8 percent in 2019, to 75 percent as at the end of 2022.

Under Goal 7, Guyana has committed to ensuring access to affordable, reliable, sustainable, and modern energy for all – leaving no one behind. In 2022, the Government launched an initiative to improve energy services in the hinterland (rural) communities where approximately 10 percent of the Guyanese population resides. This energy access initiative, "Solar Home Energy (SHE) programme", aims to reach the remotest of areas of the hinterland by providing energy-poor communities access to clean technologies to enhance their livelihood. SHE systems are established as a complementary solution to grid electrification and have proven to be the most viable off-grid electrification to date. Upon completion, a total of 4.5 megawatts of power will be installed across the hinterland and riverine communities of all 10 Administrative Regions of Guyana and is expected to benefit over 245 communities or 30,000 households.

In line with Goal 9, approximately $1.3 billion was allocated towards eight (8) hinterland airstrips. These hinterland airstrips serve approximately 14 percent of Guyana's population, who reside in those areas (SDG Target 9.1). Further, over $5.7 billion has been spent on the hinterland road network to upgrade over 1,685 km of road, however this was immensely affected by the pandemic. The hinterland towns of Mahdia and Mabaruma as well as Port Kaituma have benefited from construction of rigid pavement roads. Guyana has also procured a new ocean-going vessel, at a cost of US$12.7 million to serve the hinterland region – Barima/ Waini – Region 1 and represents an over 150 percent increase in capacity for the largest vessel to ply this route.

To support manufacturing in the hinterland and in line with the principle of inclusivity and leaving no one behind, a business incubator was established in Lethem, in Upper Takutu/Upper Essequibo – Region 9. This incubator is equipped with advanced agro-processing facilities capable of producing items such as farine, dried fruits, ground pepper, condiments, and tea bags. Further, several critical programmes – the provision of free internet access in public and community spaces (WiFiGY), the hinterland connectivity initiative, the provision of community-based ICT literacy training, the school connectivity project and the ICT Access for hinterland, poor and remote communities project have also been implemented.

In keeping with Goal 11, support for home ownership for young persons through the Young Professionals housing programme has provided increased access to housing solutions for Guyana's youth. Persons from as young as 21 can apply for land for housing in Guyana. Additionally, between 2020 and 2022, approximately 20,240 or 83 percent of house lots were allocated to low- and middle-income earners. Notably, there was also increased focus on allocating to female headed households, and at a subsidised cost. Allocations to female headed households in 2022 stood at 45 percent, up from 42 percent in 2021.

As reflected under Goal 17, the challenge in access to affordable financing remains significant and can stymie progress towards achieving the Goals Guyana's ability to mobilise domestic resources has allowed increased financing for its Indigenous communities. A dedicated 15 percent of all revenues from forest carbon markets will be available to Amerindian communities to finance implementation of their own Village Sustainability Plans (VSPs). This proposal was welcomed by the National Toshaos Council (NTC) in a resolution on July 15, 2022.

Additionally, policy actions to liberalise the telecommunications sector to reduce the cost of internet and enable access to vulnerable communities have resulted in increased users across the country. Further, having recognised that access is a multi-faceted issue, Guyana has simultaneously focused on equipping its populace with the requisite digital literacy training, skills and knowledge to leverage the internet access being provided. Further, several critical programmes – the provision of free internet access in public and community spaces (WiFiGY), the hinterland connectivity initiative, the provision of community-based ICT literacy training, the school connectivity project and the ICT Access for Hinterland, Poor and Remote Communities Project have also been implemented.

Importantly, the failure of significant progress on the 1970 0.7 percent GNI commitment and the 2009 US$100 billion climate finance commitment have served to retard the progress towards achieving sustainable development across developing

countries. The delay in acknowledging vulnerability beyond GDP computations has further compromised the ability of developing countries to become resilient.

## Areas of Support

Guyana has taken decisive actions to expand access to technology, expand investments in social sector particularly housing and water as well as support infrastructure and incentives for private sector expansion. Bridging the gaps between the hinterland and the coastal populations is a driving priority for national initiatives across both social and economic spheres. Both domestic and international partnerships are needed to achieve the world class standards across every sector that is part of Guyana's national development vision. Bilateral and multilateral partnerships are considered critical to achieving the national development agenda.

**Box 1.1** - Key SDG Highlights

**SDG Good Practices**

Examples of good practices worthy of emulation:

1. Citizen centric policy making and access to policy makers at the highest levels by the people is a hallmark of Guyana's current government.
2. The integration of the SDGs into the national budget process from the preparation - in the Budget call circular, the annual Estimates of the Public Sector, to implementation - in year programme performance reviews.
3. Ongoing strengthening, awareness, and use of monitoring and evaluation and value for money concepts across government has resulted in over 2,000 persons trained in Government Ministries and Regions across the country to date. This creates a culture of understanding the use of data and the need for measuring results.

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**SDG Lessons Learned**

1. Need for stronger inter-agency coordination, particularly where multiple agencies have specialised responsibilities that contribute to the same Goal, Target or Indicator.
2. Need to further strengthen data systems at sector levels and in some instances have systems integrated across sectors. This is not an inexpensive exercise.

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**SDG Challenges**

1. Adequacy of fiscal space to finance full achievement of the SDGs particularly in light of shrinking concessional resources owing to graduation of countries. Failure of the global community to meet its commitments.
2. Need to strengthen educational outcomes and also expand capacities for science, technology and innovation required to drive diversification and productivity improvement, which impacts many of the Goals.

# 2. INTRODUCTION

Guyana's international reporting obligations are considered an important component of good governance, in that it supports greater accountability and transparency. Guyana takes these obligations seriously, even when they are voluntary, and considered it appropriate to present its Second VNR of the SDGs to support the global monitoring of progress towards Agenda 2030. This Second VNR builds on the First in that it covers the period 2019 to 2022, and where possible captures actions taken in 2023, as well as the outlook beyond. Guyana opted for a detailed review of the five (5) highlighted Goals of HLPF 2023 – namely Goals 6, 7, 9, 11 and 17.

Guyana's vision for sustainable development is elaborated through the national development strategy – the LCDS 2030 – that sets a vision for monetising the climate and ecosystem services provided by our standing forests, which is further elaborated in the Policy Section of this report.

Incorporation of the relevant SDGs within national and sectoral targets and indicators has supported increased awareness of the SDGs. Even as this VNR focuses on the highlighted Goals, all of the SDGs remain important to the national development trajectory and are fully integrated into national and sectoral planning and budgeting processes. The development of human capital underpins the achievement of success across all the Goals and with a low population density, and a rapidly growing economy, a paucity of labour with relevant skills across the range of sectors remains a challenge. Resolving skills mismatches in the labour economy remains a national priority.

The principle of leaving no one behind and addressing the needs of the most vulnerable are driving forces of the current development agenda. Recognising the challenges of limited financing and limited options for domestic financing from taxes, Guyana has strategically leveraged its natural resources – (i) petroleum and (ii) standing forests to generate resources to address critical development needs as discussed under Goal 17. Importantly, of the payments being received from carbon credits, 15 percent has been earmarked for community/village-led programmes for indigenous peoples and local communities (IPLCs) as set out in Village Sustainability Plans. The remaining 85 per cent will be allocated to national priorities such as renewable energy and infrastructure from which IPLCs will also benefit (Goals 7 and 9).

In examining the five (5) highlighted goals, this VNR presents a description of policy actions and programmes that have been implemented, tabular data for the related indicators, challenges, and solutions - both adopted and needed to achieve the Goals, including the costs for implementing key initiatives towards achieving the SDGs. Some good practices have been identified as well as lessons learned and next steps as we take stock in the mid-period to 2030. Specific focus on the process of consultations is also detailed in this VNR.

In many instances Guyana has managed to improve from its baseline in 2015 in spite of climate related challenges of having our coastline below sea level and the additional pressures of the recent pandemic.

Guyana is pleased to present our Second VNR of our progress towards the achieving the Goals identified for in-depth review at the 2023 HLPF and looks forward to the opportunities for partnerships and collaboration with all stakeholders to support the acceleration to the 2030 Agenda.

# 3. OVERVIEW OF THE CO-OPERATIVE REPUBLIC OF 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 only English-speaking country in South America and is also considered. 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 gained independence in 1966 from former British rule and became a republic in 1970 and has since been a sovereign state. 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 with provision for geographical representation in the National Assembly. Guyana's last General and Regional Elections were held in March 2020 with the new government assuming office in August 2020, after a protracted conclusion to the election process. Local Government elections also form part of the democratic process which governs elections for municipalities and towns and neighbourhood democratic councils (NDCs ). Local Government elections are based on a hybrid first past the post proportional representation. Guyana has 10 administrative regions, 10 towns and three (3) counties across its coastland and hinterland. Local Government elections were last held in June 2023. 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 and contains its forest resources.

Guyana's population is estimated at approximately [1] 775,790 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 nine indigenous groups – the Wapishanas, Arecunas, Macushis, Warraus, Arawaks, Caribs, Akawaios, Patamonas and Wai-Wais; Africans; East Indians; Chinese; Portuguese and Other Europeans; and mixed races. With 4 people per km $^2$, 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 to 2 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

Guyana's youthful population presents an opportunity to advance its efforts towards the achievement of sustainable development. The establishment of a Youth Advisory Council by His Excellency President Ali has created additional opportunities for youth involvement in national development.

With respect to human development, Guyana's Human Development Index (HDI) value for 2021 was 0.714 up from 0.654 in 2017 – which puts the country in the high human development category – positioning it at 108 out of 189 countries and territories, up from ranking of 125 in 2017. At the time of reporting in Guyana's First VNR, the ranking of 125 placed Guyana in the medium human development group. Between 1990 and 2021, Guyana's HDI value increased from 0.538 to 0.654, an increase of 21.5 percent. Guyana's 2021 HDI of 0.714 is below the average of 0.754 for countries in the high human development group and below the average of 0.754 for countries in Latin America and the Caribbean.

Guyana's life expectancy at birth, in 2021, stood at

1 Source, Bureau of Statistics, 2019

2 See Guyana's National Youth Policy, 2016

65.7 years overall – 62.5 years for males and 69.1 years for females, while mean years of schooling stood at 8.7 years for females and 8.5 for males and expected years of schooling at 12.8 for females and 12.2 for males (UN HDR 2021-2022). Guyana's Domestic Product (GDP) per capita stood at US$22,465 9,777.6 in 2021. Notwithstanding many positives, a further analysis of the United Nations Development Programme's (UNDP's) HDI shows the presence of inequality, unequal distribution of economic wealth, decline in life expectancy, shortcomings in the education sector in Guyana.

The Gender Inequality Index (GII) is a composite metric of gender inequality. The GII reflects gender-based inequalities across several dimensions namely health, empowerment, education and economic activity. A low GII value indicates low inequality between women and men and vice versa. The GII varies between 0 (when women and men fare equally) and 1 (when men or women fare poorly compared to the other, in all dimensions). Guyana has a GII value of 0.454, ranking it 114 out of 191 countries in the 2021 index.

The currency of the country is Guyana dollars and all currency referred to in this Report is in Guyana dollars except if denoted by US dollars.

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 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 Guyana 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 41.9 percent from 2020 to 2022 with overall growth of 25.1 percent projected for 2023, driven by both the oil and gas sector and the non-oil economy including growth in services, construction, and the production of other crops. With respect to sector contribution to real GDP, the mining and quarrying sector contributed 66.3 percent (mainly driven by the oil and gas sector, which contributed 62.1 percent to real GDP) in 2022. Agriculture, forestry and fishing contributed 9.4 percent, for the same period, while the construction sector contributed 3.8 percent, and manufacturing 1.9 percent. Moreover, expanding activities in the services sector, including increased wholesale and retail trade, transportation and storage, administrative and support services, real estate activities, financial and insurance activities, public administration, information and communication, education, health and social services, and other services, accounted for 15.9 percent of real GDP at the end of 2022[3]. It is important to note that Guyana rebased its GDP in 2019 to the year 2012 and therefore all GDP related indicators are updated accordingly.

Guyana continues to pursue debt and fiscal sustainability as a key economic objective. The public debt to GDP ratio which is considered a fiscal anchor, was reduced from 47.4 percent in 2020 to 24.6 percent in 2022, reflecting both prudent debt management and rapid underlying economic growth[4].

For the period 2019 to 2022, 12-month inflation averaged 4 percent, and is expected to be maintained at single digit levels, with a projection of 3.8 percent for 2023, as prices stabilise. Over the past two years, as a result of the COVID-19 pandemic the world would have observed a significant impact on global commodity prices due to supply chain disruptions. Globally, and in Guyana, this led to higher energy costs and food prices.

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 its 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 flooding from the Atlantic Ocean, usually occurring during the rainy seasons.

Guyana is characterised by Atlantic beaches to the north, mountain ranges to the west, and rainforests with an abundance of biodiversity and wildlife and

3 Ministry of Finance and Bureau of Statistics

4 Ministry of Finance

savannahs to the south. Guyana has an extensive forest cover, and this is, unarguably, one of its most valued natural assets, covering more than 85 percent of the country, which is part of the Guiana Shield that stores around 18 percent of the world's tropical forect carbon and 20 percent of the world's fresh water. Notably, it has a historically low deforestation rate of below 0.1 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).

Guyana was subjected to major flooding in 2021, that amid COVID-19 presented significant challenges to delivering services to affected areas. Flooding impacts not only the coast which is below sea level but also many areas in the hinterland that are close to major rivers.

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

# 4. METHODOLOGY AND PROCESS FOR THE PREPARATION OF THE SECOND VNR

Guyana is presenting its Second VNR on its progress towards achieving the SDGs, in keeping with the United Nations 2030 Agenda for Sustainable Development. Guyana's Second VNR focuses on an in-depth examination of the thematic Goals for HLPF 2023 and signals our continued commitment to the implementation of Agenda 2030. The SDGs being reviewed for HLPF 2023 are SDG 6 – Clean Water and Sanitation; SDG 7 – Affordable and Clean Energy; SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities and SDG 17 – Partnerships for the Goals.

Guyana launched the preparation of its Second VNR on the 19th of April 2023 with the convening of the first meeting of the IACM chaired by the Senior Minister in the Office of the President with Responsibility for Finance. The IACM comprised the key Ministries, Agencies and Departments responsible for the implementation of initiatives aimed at achieving the SDG Targets and thus would have a critical role in documenting their progress and challenges, over the past four years. Within the IACM structure, the MoF led the preparation of the report and video to be presented at the HLPF, while the MOFAIC led the coordination of IACM meetings which were held weekly leading up to the presentation of Guyana's VNR. The MPAG spearheaded the civil society stakeholder consultation as part of the national consultation process to increase awareness around Guyana's presentation of the VNR.

Utilising the VNR Handbook and drawing upon documentation used to guide the preparation of Guyana's First VNR, the Summary of the VNR Process and Methodology document was presented to the participants at the first IACM. The Summary document was subsequently transformed into a Key Milestones document, which outlined the timelines for the completion of the main activities leading up to the presentation in July 2023. Having already completed its first VNR, Guyana was better positioned for the preparation of VNR 2023. Agencies were asked to draft key messages, draft narratives, prepare presentations to be shared at civil society consultations and compile outstanding data to report on the indicators for their respective Goals. Technical Review Meetings were then held to comprehensively review the submissions made by the Agencies and provide technical feedback to revise the submissions in keeping with the VNR requirements.

Guyana determined that the preparation of VNR 2023 would be a nationally driven process using internal expertise and thus drafting of the narratives was coordinated by the MoF. Agencies prepared zero draft narratives which were reviewed by the Ministry of Finance, who provided feedback for the revision of the zero drafts to ensure that the structure and content aligned with the requirements of the VNR. Notably, the MoF ensured inclusion of the sections on the COVID-19 pandemic, the SDG financing gaps and the effects of climate change. The MoF also sought to ensure that steps taken to improve data systems were documented, as Guyana had identified inadequate data as a challenge in the 2019 VNR. At the stage of the first drafts, the MoF edited the narratives to strengthen the technical content where necessary and finalised the advanced drafts which were submitted to the Technical Review Committee and then for Ministerial review towards finalisation. There was a continuous feedback loop with the Agencies which aided in ensuring the accuracy of the data and narrative in the report and a consultative process for the preparation of the document.

The VNR process also included multi-stakeholder engagements which led to sharing of experiences and lessons learned and underscored the need to strengthen inter-agency collaboration and data systems. On May 2, 2023, Guyana hosted a whole-day consultation on the VNR at the Arthur Chung Convention Centre which was attended by over

100 persons representing 40 civil society, private sector organisations and government agencies. The consultation included opening remarks by Guyana's Prime Minister, the Senior Minister in the Office of the President with Responsibility for Finance and the Minister of Parliamentary Affairs and Governance. There were also technical presentations linking the SDGs to the national development strategy – LCDS 2030 and the national budget process. This was followed by panel discussions on each goal, which included strategic and technical overview presentations by the Ministers of sector Agencies and senior technical officers with responsibility for the respective SDGs and Targets. Following the panel discussion presentations, attendees were offered the opportunity to provide their feedback, contributions and ask questions. Questions were answered by the respective Ministers and senior technical officials on the respective panels. Responsibilities for Goals and Targets were outlined in Guyana's SDG Mapping Tool as seen below in Figure 3.

## SDG Agency Mapping

The SDG Agency Mapping tool is a resource that provides mapping of the responsible agencies within government and other stakeholders that are required to collaborate in order to achieve the specific SDG target.

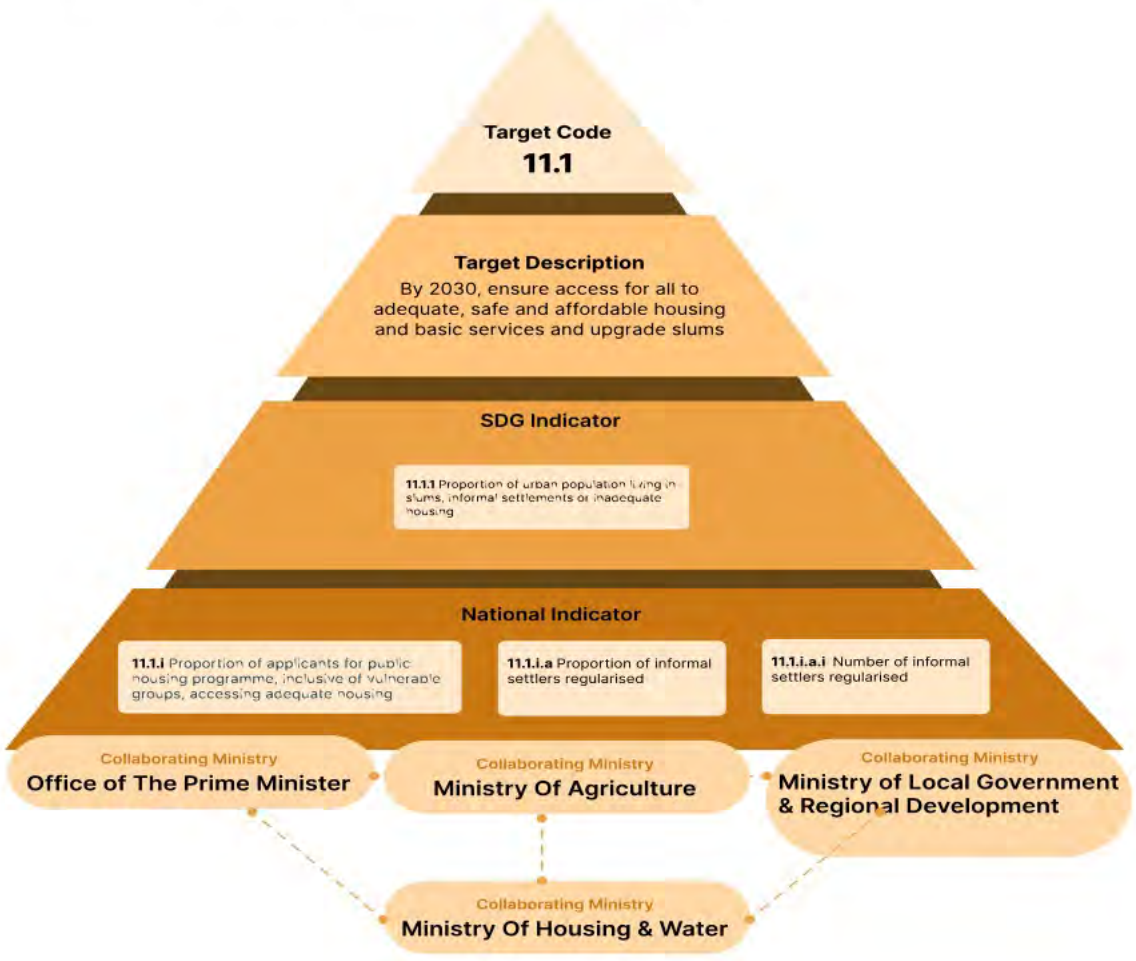



**Figure 1:** SDG Mapping Tool (MOF)

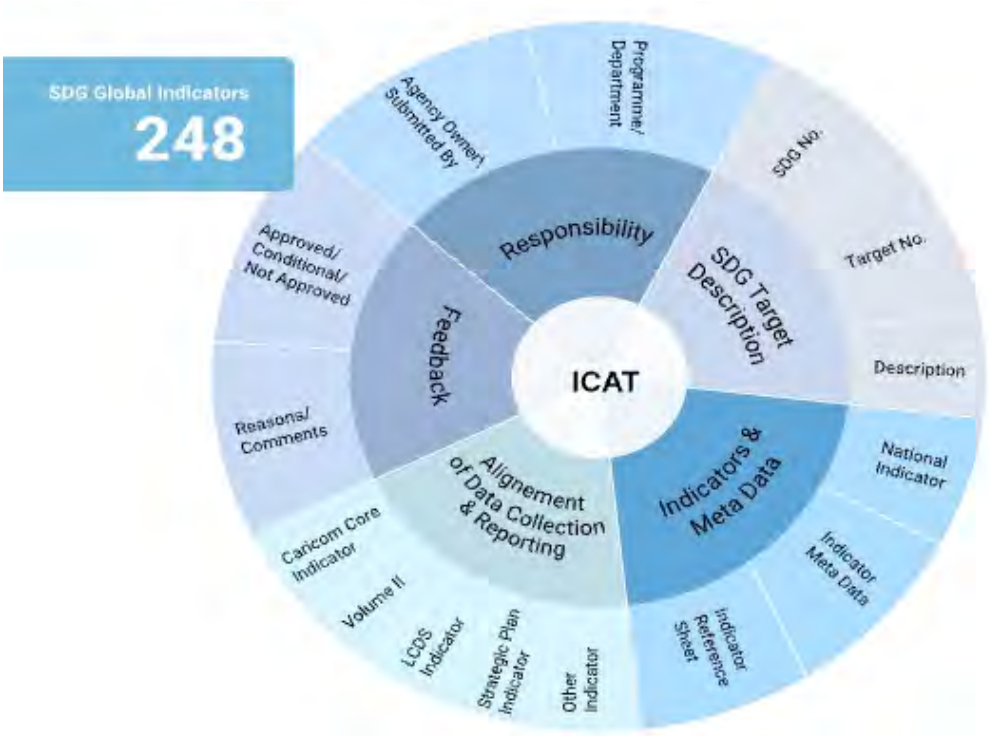
Learning from its experience with the preparation of its first VNR, Guyana sought to increase consultations around the Second VNR and thus hosted a hinterland consultation on the VNR. The Ministries of Amerindian Affairs, Finance, Foreign Affairs and International Cooperation and the Region 9, Regional Democratic Council were instrumental in organising the hinterland consultation. The hinterland engagement was held on the 20th of May 2023 in St. Ignatius Village, Upper Takutu/ Upper Essequibo – Region 9. It was attended by over 130 village councillors and representatives from 24 hinterland villages, which represents almost 11 percent of the 220 Amerindian villages. Ministerial representation at this consultation included the Senior Minister in the Office of the President with Responsibility for Finance, the Minister of Public Works and the Minister of Amerindian Affairs. Like the coastal consultation, the Ministers provided strategic overviews which were then followed by technical presentations and question and answer segment. Feedback garnered in the VNR consultations has been considered in preparation of the narratives for the Goals in this report.

Guyana continued to incorporate data to support reporting on the SDGs into the national budgeting process, within the Estimates of the Public Sector which further aided strengthening of the national data system. Additionally, the institutionalisation of key concepts in monitoring and evaluation (M&E) across the whole of Government continued, though this was also affected by the pandemic. Since the presentation of VNR 2019, Guyana trained approximately 350 officers in M&E, as well as introduced new training programmes such a value for money analysis targeting the key sectors. Strengthening planning units in major Budget Agencies also continued, though their statistical capacity remained a challenge. Overall, this supported improved technical capacity for data collection to report on the SDGs.

Additionally, the MoF continued to maintain the SDG Indicator Collection and Assessment Tool (ICAT) which was developed during the preparation of the first VNR. The ICAT has been expanded to include the period of 2019 through 2022, as well as the indicator metadata, which has also been accessed from the United Nations Department of Economic and Social Affairs' (UN DESA) repository, see Figure 4 below. This also increased the availability of data to report on the SDGs. Guyana's Bureau of Statistics compiled the statistical annex using the ICAT, administrative data routinely collected, and data submitted during the VNR preparation..

## Indicator Collection and Assessment Tool (ICAT)

In alignment with the United Nations SDGs, Guyana developed a software based tool to store and track data on SDG indicators.




### Currently Monitored and Tracked Time Periods

A visual representation of the relationships between different indicators and their hierarchical arrangement within the ICAT tracking mechanism employed for monitoring SDGs

Actual 2015 to 2022

Actual (YTD)

designed by ccwc.io

**Figure 4:** Indicator Collection and Assessment Tool

The process of preparing the VNR was inclusive and consultative, and offered Guyana the opportunity to highlight its progress in leaving no one behind, a central theme of the SDGs, as well as the challenges that the country has had to overcome over the past 4 years. Further, the participation of civil society, the private sector, donor partners, and all stakeholders was critical to documenting the impact of key initiatives undertaken over the past four years and demonstrating how Guyana is achieving the targets set out under each of the reviewed SDGs.

# 5. POLICY, ENABLING ENVIRONMENT AND MEANS OF IMPLEMENTATION

Guyana's approach to implementation of global commitments under the SDGs is guided by its national strategy for development – LCDS 2030. Guyana's LCDS 2030, builds on an original vision set out in 2009, when the then-President, Dr. Bharrat Jagdeo, called for new global models for low-deforestation development pathways – stating: *"Tropical Forest countries have long called for the ecosystem services provided by the world's standing forests to be properly valued, through both public and private finance. This will enable people who live in forests and forest countries to create jobs and economic opportunity from an economy that works with nature, instead of today's reality where forests are worth more dead than alive."*

This vision was given life through the LCDS 2009, which underwent one of the widest national consultations in Guyana's history at that time - and outlined a phased process whereby Guyana could earn money from forest climate services and invest these in LCDS priorities. .

The LCDS 2030 is Guyana's national strategy that:

- *Outlines the approach and actions that Guyana, as a nation, can take to develop and grow for the inclusive benefit of all in a non-polluting, low carbon way;*
- *Involves utilising our natural resources in a sustainable manner while combating climate change and its adverse effects such as floods and droughts;*
- *Outlines how Guyana can sustain its world-class ecosystem services for the long term, by integrating with the global economy and receiving payments for ecosystem services;*
- *Seeks to align with and contribute to global climate goals, including net zero carbon emissions and keeping global temperatures below 1.5˚C.*

For Phase I, Guyana sought a bilateral partner who shared the country's vision and who was willing to partner to create a model for the world. This culminated in the 2009 Guyana-Norway Agreement which, at the time, was the second largest forest agreement of its kind in the world. Guyana earned over US$220 million for forest climate services for the period 2009 to 2015. These revenues were, and are still being invested in clean energy, low carbon jobs, Amerindian land titling, the Amerindian Development Fund project, rehabilitation of the Cunha Canal and other climate resilience work, support for small and medium enterprise development in collaboration with the local banking sector, and many other investments which were set out in the LCDS 2009 and a 2013 update. (see Diagram on overleaf).


**Figure 5:** Low Carbon Investments, Ministry of Natural Resources

Guyana has moved to Phase 2 of the plan that was set out in 2009. In Phase II, Guyana can start to replace or augment payments from Norway and receive revenues for forest climate services from global voluntary carbon markets.

At the same time, the LCDS 2030 sets out how the country can start to prepare for potential revenue streams from other ecosystem services – including those based on Guyana's world-class biodiversity and water resources.

The national consultation on the LCDS 2030 sought ideas on how these new revenues could be invested. As a result, the strategy sets out two pathways:

- ***National programmes*** as outlined in the draft LCDS 2030, including investments in renewable energy, land titling, protection against climate change and other areas;

- ***Community/Village-led programmes*** for indigenous peoples and local communities as set out in Village Sustainability Plans (VSPs) or equivalent, put together by communities themselves in accordance with the principles of Free, Prior and Informed Consent as set out in the LCDS 2030 Chapter Two.

A dedicated 15 percent of all revenues from forest carbon markets will be available to Amerindian communities who choose to participate in and produce their own VSPs.

This proposal was welcomed by the National Toshaos Council (NTC) in a resolution on July 15, 2022, with the NTC resolution recognizing *"the extensive national-scale and community-based consultations, conducted over the past seven months, [which] have informed the main aspects of LCDS 2030" while welcoming "the commitment expressed in the LCDS 2030 to continued consultation and engagement with Indigenous Communities and Villages as the LCDS moves to implementation."*

On July 18, 2022 - the Multi-Stakeholder Steering Committee (MSSC) of the LCDS approved the finalisation of the Strategy based on the wide-ranging stakeholder feedback since October 2021. The MSSC oversees the consultative process and implementation of the LCDS 2030. It comprises representatives of Government Ministries and agencies, non-governmental organisations (NGOs), the private sector, youth, mining and forestry producers, the NTC, indigenous communities, and

civil society [5].

With the approval of the MSSC, the LCDS 2030 was tabled in the National Assembly in July 2022 and endorsed by Parliamentary Resolution on the 8th August 2022.

The LCDS 2030 sets out four inter-linked objectives for Guyana, the first three of which were the basic objectives of the LCDS since 2009 and the fourth of which was added to reflect new local and global realities:

- **Value Ecosystem Services:** Over time, Guyana aims to integrate with global mechanisms that value the country's globally significant ecosystem services including biodiversity, water management and ocean or marine resources. In the immediate term, Guyana's efforts will focus mainly on forest climate services, and the value Guyana provides the world in the fight against climate change, continuing with the three-phase approach first set out in 2009.

- **Invest in Clean Energy and Stimulate Low Carbon Growth:** Guyana will undergo one of the world's most ambitious energy transitions and grow the economy up to five-fold, while keeping greenhouse gas emissions from energy generation at around 2019 levels. This can be done through the replacement of expensive, polluting, heavy fuel oil with natural gas as a bridge to an energy system built mainly from hydropower, solar and wind power.

- **Protect Against Climate Change and Biodiversity Loss:** Guyana will start a new set of priority investments in drainage and irrigation, sea defences, mangrove restoration, flood and drought measures to address the potential harm to households and businesses from climate change.

- **Align with Global Climate and Biodiversity Goals:** Implementing the LCDS will advance progress towards the UN SDGs, as well as a series of multilateral, regional and bilateral agreements. Moreover, since the production of the 2009 LCDS, Guyana has discovered oil and gas, which has transformed the country's development prospects. Guyana will act strategically and responsibly as the sector develops, supporting global energy security while diversifying and decarbonising Guyana's domestic economy and investing in development priorities for all Guyanese, including health, education and low-carbon opportunities.

The LCDS aims to be compatible with and inform sector level plans, as well as support international commitments. Where existing sector plans already exist, and in instances of new requirements of from global, bilateral and regional agreements/ conventions, these will be aligned with LCDS programme areas and future revisions of the LCDS will also take these developments on board.

5 Representation on the MSSC comprises the Offices of the President and Vice President, the Office of the Prime Minister, Ministry of Public Works, Ministry of Amerindian Affairs, Ministry of Finance, Ministry of Natural Resources (including Guyana Forestry Commission and Guyana Geology and Mines Commission), Ministry of Agriculture, the National Toshaos' Council, Indigenous Peoples' Commission, Amerindian Peoples' Association, Guyanese Organisation of Indigenous Peoples, The Amerindian Action Movement of Guyana, National Amerindian Development Foundation, Private Sector Commission, Forest Products Associations, Guyana Gold and Diamond Miners Association, in addition to represetnat6igevs of Labour Unions, Women's organisations and youth groups.

# 6. CONSULTATIONS AND STAKEHOLDER ENGAGEMENTS

The Government of Guyana has been implementing strategies and policies aimed at fostering and supporting the development of all Guyanese through the guiding principle of inclusion. It is this very principle which has made way for consultations throughout Guyana, where citizens can voice their opinions and make recommendations on national issues.

National consultations around the national development strategy document have historically been far reaching in nature involving multistakeholder groups and iterative feedback. The most recent engagements for LCDS 2030 were no different, however, there was a new feature, e-consultation which allowed persons to review the draft documents on the on the official LCDS website and provide their feedback via the comments portal of the website or using the official LCDS 2030 email. The seven months consultation period which commenced in October 2021, also facilitated virtual stakeholder engagements were also held in light of COVID-19. Consultation meetings with civil society, private sector and other organisations were held between January and March of 2022. National level consultations were completed with 31 Ministries and Agencies, 12 private sector bodies and 33 civil society individuals and organisations. There were also 16 community-based sessions, attended by an average of 100 persons in each session. Emailed feedback was received from 16 organisations, while 13 institutions and individuals provided feedback via the LCDS 2030 website. The website still allows for feedback on be received on the documents.

Further, the national budget process benefits from broad and inclusive stakeholder consultation. Central sectoral ministries engage with collaborating entities, private sector and civil society in crafting their budget proposals and Regional Democratic Councils.

The development of sectoral strategies also utilises a multi-stakeholder engagement process to inform the final content of the strategy that then guides programme development, annual targets and performance indicators. Some policy documents target active stakeholder groups, for example, the external debt policy that covered MoF, BoG, and multilateral financing partners.

More importantly, communicating national development goals and urgent development priorities to Guyanese has seen the President taking cabinet to the people and sectoral Ministers of government being mandated to do expanded outreach since 2020. This format of engaging the people is expected to continue ensuring that policymakers are accessible to the public. Further, Guyana's governance framework also features extensive consultations on issues of national interest such as electoral reform, human rights, and constitutional reform.

In keeping with the Government's policy to promote social inclusion and equality within the Guyanese society, stakeholder consultations were held to review Guyana's progress towards the achievement of the SDGs for the period 2019 – 2023. One consultation was held in the capital city of Georgetown at the Arthur Chung Conference Centre (Coastal Consultation) on May 2nd, 2023 as seen in Figure 6 below, and the other in the country's hinterland in the village of St. Ignatius (Hinterland Consultation) on May 20th, 2023, where most of its indigenous population reside. These consultations also fulfilled the UN Economic and Social Council mandate of Leaving No One Behind as prescribed in the 2030 Agenda on Sustainable Development.


**Figure 6:** Coastal VNR Consultation, May 2nd, 2023

In the last VNR, consultations were mainly held with government ministries and agencies, Regional Health Officers and civil society organisation and in this second VNR, consultations have been held with approximately 230 persons representing over 60 Rights Commissions, Village Councils, private sector, civil society, NGOs, and government ministries and agencies. Coastal consultations for Guyana's Second VNR were expanded to include a broad, all day civil society dialogue including approximately 100 representatives from youth, senior citizens, and persons with disabilities. The consultations took the form of Government Ministers and Senior Public Servants reporting to the plenary on Guyana's obligations and commitment to the United Nations is relation to the 2030 Agenda on Sustainable Development and the five (5) thematic SDGs for HLPF 2023.

**Figure 6:** Coastal VNR Consultation, May 2nd, 2023

Adequate time was allowed for questions and answers, feedback, suggestions, and discussions, see example below. Even though the session went beyond the scheduled end, many remained actively engaged.

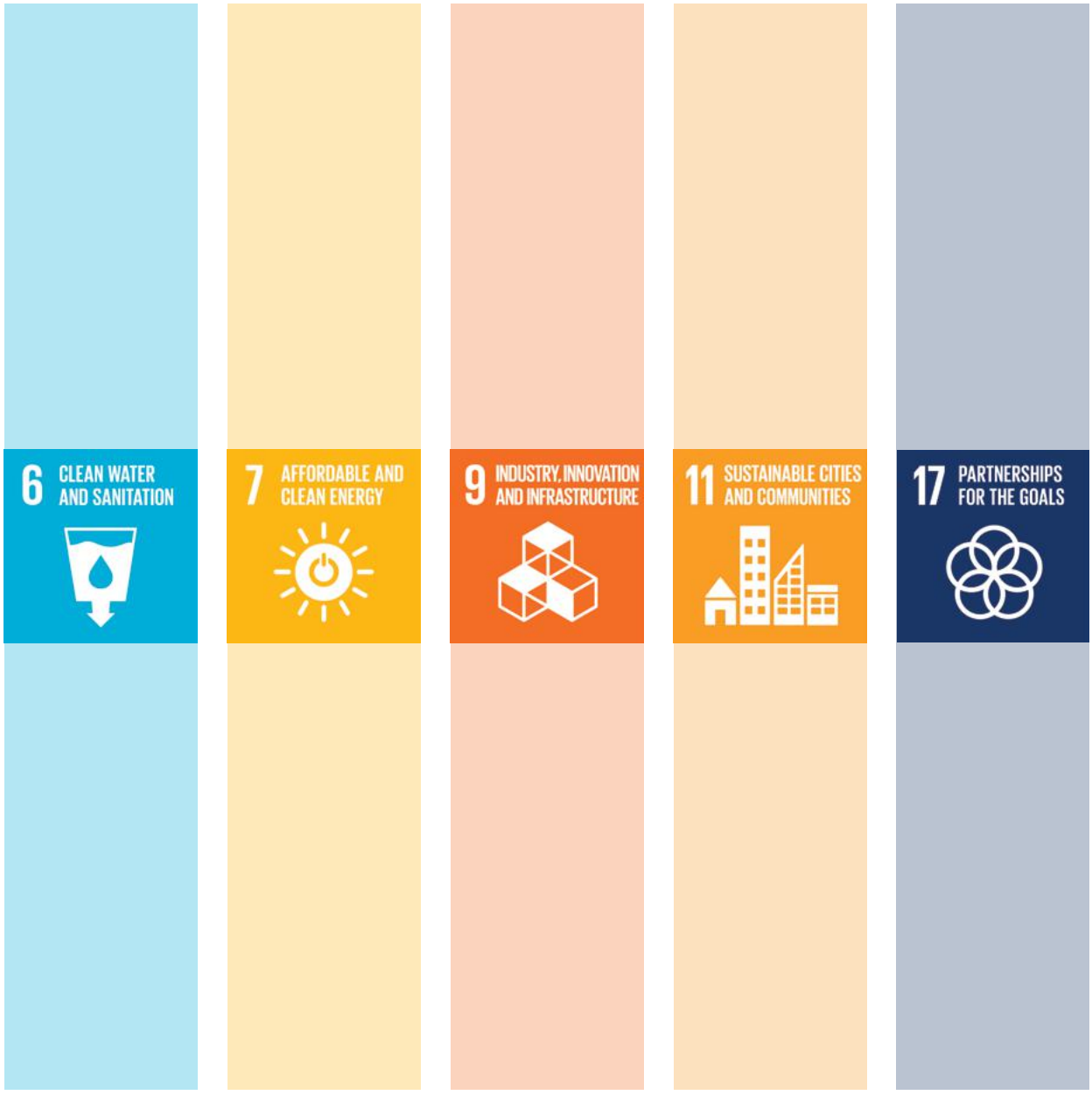
Further over 130 village representatives were consulted in hinterland consultation that saw three (3) Ministers and about 10 technical teams fly into St. Ignatius, Region 9 – 553.3 km from Georgetown – to meet with village leaders and community members as seen in Figure 8.

These villagers travelled from remote villages and were provided with river and land transportation, accommodation and meals to ensure that they were able to attend the consultation and confer on the Goals in focus as seen below.

In addition, there was a recognition of need to make the language around the targets and indicators of the SDGs more accessible in shorter info bytes. As such, the recordings of this second VNR multistakeholder consultation sessions have already served to inform future communication strategies for the SDGs. Goal specific and indicator specific roundtables, info bytes for social media and mini goal specific VNRs are planned for the months ahead. Work has already begun to create these for dissemination.

Importantly, the questions, concerns and comments raised by participants at the consultations held demonstrated that the Goals in focus for 2023 continue to reflect ongoing needs by communities as well as national priorities. The awareness and feedback to inform policy and programme formulation are together considered good practice and key ingredients for sustainable development and achieving Agenda 2030 and beyond.

# 7. PROGRESS ON THE GOALS AND TARGETS




# GOAL 6:

Ensure Availability and Sustainable Management of Water and Sanitation for All

## Water and Sanitation Management Context and Key Achievements

Guyana is derived from the Amerindian word "Guiana" which translates to "land of many waters". The country has an abundance of fresh water sources and three main rivers, namely Essequibo, Demerara and Berbice and over 270 waterfalls. The Essequibo River, which is the largest, contains over 350 islands. Surface water, sourced predominantly from rainfall, is also stored in conservancies for irrigation purposes, mainly located in Guyana's back lands. Average annual rainfall is 2,300 mm per year, with the coast experiencing two main rainy seasons; May to June and December to January, and the hinterland experiencing one main rainy season; May to July (SDG Target 6.4).

Groundwater is abstracted from two (2) main aquifer systems on the coastal plain, which require treatment for iron and hydrogen sulphide to ensure citizens are provided with safe, quality water. The total volume of water in the reservoirs is estimated at 10 billion cubic metres and possibly more, ensuring thus the long-term exploitation of the coastal aquifer for many years to come (Mercado 1997). Further, according to the Food and Agriculture Organisation (FAO), as of 2020, 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 (SDG Target 6.4 and 6.6).

Despite its immense water supplies, work is required to improve effectiveness in providing quality, potable water to the population, especially those in remote communities.

### Policies and Plans and Legislative and Institutional Frameworks

In keeping with the LCDS 2030, Integrated Water Resource Management (IWRM) is recognised as a national priority and various actions to address IWRM such as water rights and allocation; water supply and sanitation; water governance and wastewater management, are identified within the strategy (SDG Target 6.5).

Legislatively, Guyana's water resources are within the confines of the Water and Sewerage Act 2002, which *"provides for the ownership, management, control, protection and conservation of water resources, the provision of safe water, sewerage services and advisory services, the regulation thereof and for matters incidental thereto and connected therewith."* This Act mandates the Hydrometeorological Service to regulate, establish, monitor, and manage systems to ensure the sustainable management of water resources and provide support for Guyana's national needs and international obligations. Additionally, the Act mandates the public supplier, the Guyana Water Incorporated (GWI) with providing the population with access to improved and sustainable water sources, while expanding treated water coverage and ensuring continuity of supply and an improved level of service within several zones across the country. Moreover, GWI is responsible for the safe operation and maintenance of the Georgetown Sewerage System (GSS). Of note, the institution's license allows it to expand beyond its current zone, which is planned for the medium term. The GSS is also a critical component to the city's public health system.

Currently, strategic direction for the water sector comes from the Water and Sanitation Sector Strategic Plan (WSSSP) (2021 – 2025) and the Hydrometeorological Service National Strategic Plan (2022-2026). Together, these plans chart a

course over the medium term for the provision of essential services and the development of the water sector. Crucial areas of focus for the WSSSP include increasing access to potable water supply for coastal and hinterland communities; increasing treated water coverage to 90 percent; reducing non-revenue water (NRW), which includes the upgrade and replacement of the aged distribution mains in Georgetown; and the modernisation of the sewerage and wastewater infrastructure. At a higher level, this plan aims to contribute to the reduction of the triple challenge of poverty, unemployment, and inequality as well as the realisation of Agenda 2030, by promoting sustainable consumption and production. This will be achieved through the establishment of "municipal wastewater treatment systems, especially in new towns, in keeping with the country's low carbon initiative" (SDG Target 6.1 and 6.3).

Additionally, the Hydrometeorological Service National Strategic Plan 2022-2026 was developed in 2021 and charts the course for the provision of effective weather, water and climate services over the next five (5) years. The strategic framework was developed using a participatory approach, and consists of four (4) long-term goals which include: (i) ensuring that the Service has an enabling policy and institutional environment; (ii) strengthening the Service's infrastructure capacity to deliver effective weather and climate services as well as its partnerships with stakeholders to improve service delivery; (iii) increasing the use of meteorology, hydrology, marine and climate products, and ensuring successful risk identification and communication; and (iv) strengthening the Service's human capacity, performance management, and operational efficiency. These objectives are aimed at positioning the Hydrometeorological Service to improve its capacity to sustainably monitor Guyana's water resources and strengthen IWRM framework as identified in the national strategy (SDG Target 6.5).

In March of this year, Guyana completed a draft National Water Sector Policy (NWSP), which when approved and implemented, will provide a comprehensive framework for enhanced water governance and water resource sustainability. The policy also focuses on areas such as climate change, and gender equality. Prior to the completion of the draft NWSP, in 2021, a national committee was set-up to review the draft Integrated Water Use Policy, which is a sub-component of the NWSP. The NWSP will drive the activation of the National Water Council (NWC). This institutional mechanism will provide a practical model of how the various sectors with responsibilities for water use and control, can work harmoniously to protect, develop, sustain and manage all water resources, especially considering the threats of climate change. Once established, the NWC will comprise a wide cross-section of water stakeholders including the GWI, the Hydrometeorological Service and the Environmental Protection Agency (EPA) among other key agencies, that will work to ensure an integrated approach to water security and management (SDG Target 6.5).

The policy framework also consists of a Groundwater Management Plan 2020-2030 for the coastal aquifers, which was completed in 2019, under the Water Supply and Sanitation Infrastructure Improvement Programme (WSSIIP). When implemented, this plan is expected to guarantee reliable and affordable supply of potable water from groundwater sources. (SDG Target 6.6).

According to the Global Environment Facility Transboundary Waters Assessment Programme[6] in 2016, three (3) known transboundary aquifer systems are shared by Guyana and neighbouring countries, with the coastal aquifer system consisting of three (3) confined systems, of which two (2) are the primary source of potable water for the population along the coast. Guyana has no official Transboundary Agreement; however, it is party to the Amazon Cooperation Treaty which established the Amazon Cooperation Treaty Organisation (ACTO), which is an intergovernmental organisation formed by the eight (8) countries of the Amazon Basin to promote harmonious development and actions that would produce equitable and mutually beneficial results in achieving sustainable development of the Amazon Region. Within the framework of the ACTO's Strategic Agenda, conservation, protection, and sustainable use of renewable natural resources including water resources was identified as a thematic area, and there have been efforts to strengthen governance and reduce data gaps at the national and regional levels. In 2019, within the framework of its Regional Action on

6 Executed by UNESCO International Hydrological Programme (IHP)

Water Resources programme, ACTO commenced execution of several projects on integrated and sustainable management of transboundary water resources of which Guyana is a beneficiary through the implementation of National and Bi-national interventions to strengthen water governance and address data gaps in the sector (SDG Target 6.5).

In summary, through the sector's plans and policies, the objectives and outputs have been carefully designed after consultation with communities and other key stakeholders in order to achieve universal access to water and incorporate the SDGs and other internationally agreed charters. Moreover, the establishment of these strategic plans and policies support the implementation of the Guyana's IWRM framework under the LCDS 2030 agenda.

## Improving Affordability, Access and Quality of Water

In addition to the progress made on the strategic framework and institutional architectures for water resource management, Guyana has implemented several interventions to provide water services at affordable rates to the consumers. In 2020, VAT was removed on water charges, while over 28,000 pensioners are now receiving free water supply up to 10m3 of water per month, which is fully subsidised by Government to the tune of $523 million annually. Additionally, in 2021, water tariffs across all categories of consumers were reduced by five (5) percent, with the aim of providing economic relief to the population, as part of the national recovery measures from the pandemic. Over 175,000 consumers continue to benefit from this initiative, which provides them with an additional $260 million in disposable income annually (SDG Target 6.1).

Notwithstanding the COVID-19 pandemic and financing for development constraints, Guyana has made significant progress in achieving SDG 6. Driven by programmes that address the various sub regions of Guyana, the overall access to water is currently at 97 percent while the target is to achieve 100 percent by 2025 (SDG Target 6.1).

**Figure 9:** First time access to water-Mahaicony, Region 5, 2020, GWI Photo

Between 2019 and 2022, more than 43,000 persons have gained access to safe water supply for the first-time, that is, from an improved source such as a piped household water connection, public standpipe, among other sources (See Figure 9 above).

**Figure 10:** New Chesney Well, Berbice in Region 6, 2022

The proportion of Guyana's population with access to a safe water supply service remained at 97 percent, from 2019 and 2022. Notwithstanding the increase in access to potable water supply, the change in treated water coverage from 61 percent in 2019, to 52 percent currently was precipitated by the housing and home ownership drive by Government, which commenced in latter half of 2020. This has resulted in a population shift into urban areas stretching the current 28 treatment plants and facilitates capacity beyond their limits (SDG Target 6.1).

In response, Guyana has commenced the implementation of a US$195 million 90 percent Coastal Treated Water Programme. The programme aims to bridge the treated water gap by increasing treated water coverage from 52 to 90 percent over the period 2021-2025 through major capital investments in the potable water supply sector. These investments will provide improved water quality and service level to 260,000 persons or 65,000 households which represents 34 percent of the coastal population of Guyana (SDG Target 6.1).

**Figures 11 and 12:** GWI new water treatment plant at Canje, Berbice, Commissioned in 2021

This target of 34 percent of population by 2025 will be achieved through the following: (i) construction of 13 new water treatment plants with production capacity of between 2 to 14 mega litres per day in Regions 2, 3, 4, 5, and 6; (ii) upgrade of 12 existing treatment plants in Regions 3, 4, 5 and 6; (iii) expansion and upgrade of transmission and distribution systems within 25 water systems connected to the treatment plants; and (iv) construction of 10 small water treatment plants using inline systems. On the other hand, the proportion of hinterland population with access to safe water supply increased significantly from 33.8 percent in 2019, to 75 percent as at the end of 2022. This is largely due to more than 30,000 persons receiving access to potable water supply for the first time in the hinterland (SDG Target 6.1).

**Figure 13:** New distribution system for Annai, Region 9, 2022

Guyana continues to work to close this gap in access to potable water supply by 2025. Notably, while the coastland benefits from increased access to potable water supply, work still remains to be done in the hinterland. [7] To achieve the reduction in the gap in access between the coastland and hinterland communities, Guyana procured three (3) new drill rigs between 2020 and 2022. This has aided to intensify the hinterland drilling programme and ensure increased access to safe and reliable water supply in over 200 hinterland and riverain communities. Potable water received by hinterland communities is sourced from 173 wells, 29 springs, and over 20 rivers and creeks.

In this regard, Guyana has implemented a strict water quality monitoring regime to ensure that the water supply is safe. In the next two years, Guyana has committed to drill more than 50 new hinterland wells, along with the installation of the appropriate number of photovoltaic (PV) systems to ensure increased access of 100 percent by 2025 and reduce the climate vulnerability of hinterland communities. (SDG Target 6.1)

Guyana is committed to implementing its hinterland water supply programme to achieve universal access by 2025.

*Some 500 villagers/persons from the community of Parikwarinau, Region 9 benefitted from improved water quality and service level in Nov 2021*

**Figure 14:** Installation of solar photovoltaic water distribution system in Parikwarinau, Region 9

Improving the efficacy of assessing water quality remains a high priority for Guyana. In this regard, in July of 2022, the central laboratory was recertified by the Guyana National Bureau of Standards (GNBS) for two years, as a certified testing laboratory capable of conducting several analyses, as seen in Figure 15 below. Consequently, more informed decisions are easily made with greater confidence regarding the performance of treatment facilities, evaluation of the effectiveness of new technologies for water treatment applications and water quality compliance with the World Health Organisation's (WHO) drinking water guidelines among others. (SDG Target 6.1)

7 Treated water is any water made more potable or useful, as by purifying, clarifying, softening, or deodorising it.

Further, an additional mini-lab was completed and operationalised in Region 3- Pourderoyen in 2021, adding to the four (4) mini-labs already in operation. This lab is intended to service the routine water quality monitoring and surveillance needs of the Region. Additionally, water samples are sent to the central laboratory in Georgetown from Regions 1, 7, 8, and 9 for testing where necessary, to ensure the water supply is safe (SDG Target 6.1 and 6.3).


GUYANA NATIONAL BUREAU OF STANDARDS

Laboratory Certification Programme

GUYANA WATER INCORPORATED LABORATORY

Microbiology, Chemistry and Sampling

**Figure 15:** GWI Laboratory Certification

Moreover, Guyana is in the process of constructing a new state of the art central water testing laboratory at a projected cost of US$285,000. The 2,160 square feet facility will feature an International Organisation for Standardisation (ISO)-17025 management system for water with the capacity to conduct chemical, microbiological and wastewater analysis. This is a major initiative aligned with the expansion of treated water coverage programme to ensure the provision of an expanded testing regime which will facilitate the operationalisation of the new treatment plants (water and wastewater), including wells and production sites nationwide (SDG Target 6.1 and 6.3).

Also, in keeping with Guyana's commitment to ensuring water quality monitoring is a priority, in 2019, a Water Quality Laboratory for the Hydrometeorological Service was commissioned to boost national capacity to effectively retrieve and process information vital for assessing the quality of the country's water resources. Since its commissioning, the laboratory has been improving its capacity to conduct water quality analysis through the procurement of relevant, modern and durable equipment for both field and laboratory analyses. The procurement of equipment such as an US$140,000 atomic absorption spectrophotometer, chemical fume hood and microbiology laboratory equipment highlights the Government's commitment to ensuring sufficient testing for chemical and biological parameters such as heavy metals and E.Coli respectively, are conducted on existing water sources across the country to reduce the risks of contamination from ongoing activities. This laboratory is also in the process of acquiring certification from the GNBS (SDG Target 6.3).

Water resource exploitation still remains relatively low in Guyana and according to the FAO Aquastat database, the annual per capita water availability is estimated at 344,541 m3, indicating that Guyana is rich in freshwater resources. In 2020, FAO estimated that the total water withdrawal by all sectors to be around 1,836 m3 per capita, with agricultural production, GWI withdrawal and industrial consumption remaining stable over the period 2015 to 2022. This reinforces the point that availability of water is currently not an issue for Guyana, but rather the cost of achieving equitable distribution across the country. Even along the coast, the cost of pipelines and replacing decades old systems is estimated at tens of millions of US$ (SDG Target 6.4).

Guyana has many productive sectors such as agriculture, forestry, mining, fisheries and service industries, all of which require and utilise water resources to ensure productivity in their respective activities. In this regard, according to the estimates by the FAO Aquastat database, as of 2020, Guyana's water use efficiency was approximately at US$3.92 per m3 which is an increase from previous years, but it still requires significant input for improvement. This estimate represents an increase in the demand for water from existing and emerging sectors, such as oil and gas and renewable energy, as well as Guyana's growing economy. The water use efficiency will continue to increase, as Guyana continues to invest and shift towards integrated management of these water resources, ensuring value is added to its use across all sectors (SDG Target 6.4).

Despite the increasing demand for water resources, Guyana's water stress continues to

remain at a constant 3.30 percent, according to the estimates of FAO. This low water stress level can be attributed to the abundance of freshwater resources available within Guyana, and the limited ability to fully access and utilise this resource. Most withdrawals have been noted in the key industries, especially agriculture and at the municipal level, and though currently this remains constant, the increase in demand and emerging sector needs, would encourage Guyana to enhance its capacity to monitor and sustainably manage these resources, to ensure its water stress levels are maintained and no citizens are left behind (SDG Target 6.4).

### Improved Sanitation and Handwashing

According to the WHO/United Nations International Children's Emergency Fund (UNICEF) Joint Monitoring Program (JMP) for Water Sanitation and Hygiene (WASH) Progress Report 2020-2021, nationally 86 percent of the population has access to at least basic sanitation. The JMP report is further supported by the UNDP Human Development Report 2019, that shows that 86 percent of the population is using basic sanitation or have access to 'improved' sanitation services, that is, improved facilities that are not shared with other households (SDG Target 6.2).

The Georgetown Sewerage system is 1 of 4 sewerage systems in the country and the largest system with over 9,000 connected households. The connected customers represent 22.8 percent of Georgetown's population and 3.6 percent of the national population (SDG Target 6.2). The rest of the population external to Georgetown, utilises decentralised sanitation solutions such as septic tanks. Under a Water, Sanitation and Hygiene (WASH) Programme (WASH),New photovoltaic and water distribution systems were installed at Kurkutuku, Cuyuni/Mazaruni - Region 7, and Riverview and Goshen in Upper Demerara/ Berbice – Region 10 and hygiene training was also conducted in Barima/Waini – Regions 1 and Upper Taku/Upper Essequibo – Region 9. (SDG Target 6.3).

Another key intervention with regard to wastewater management is the Global Environment Facility-Caribbean Regional Fund for Wastewater Management (GEF- CReW+) that builds on the progress made under the previous CREW project which concluded in 2017. This regional project has four components of which Guyana will be benefitting directly, from two, particularly the rehabilitation of the Kwakwani Sewerage System which will benefit approximately 2,700 residents of this community and the waste to energy conversion project which aims to generate energy to offset a proportion of its energy costs. Currently, the estimated cost of constructing a wastewater treatment facility in Georgetown is approximately US$40 million and technical proposals are being pursued (SDG Target 6.3).

To address the management of wastewater and solid waste more effectively, Guyana is also introducing environmental education, including solid waste separation and storage. Further, , a 'hand washing' programme for maintaining good hygiene was implemented in primary schools to sensitise children on the 7 - steps hand washing technique. This was implemented in 10 primary schools targeting 500 children. Additionally, 200 waste receptacles were distributed to 50 primary schools in nine (9) municipalities across the country (SDG Target 6.b). Importantly, in order to further improve sanitation management, Guyana, has expended over $2.1 billion in financing to local government organs to support their delivery of services to communities. Technical assistance has also been provided in the areas of onsite wastewater treatment, waste management, handwashing, drainage maintenance, procurement and organising clean-up campaigns and community outreaches (SDG Target 6.b).

## Challenges, Emerging Issues and Addressing the Way Forward

Guyana has made notable progress towards achieving the targets of SDG 6; however, a few core challenges still persist in relation to water quality, supply and distribution as well as sanitation services. The challenges vary in nature, but when combined have had some adverse effects on Guyana's ability to achieve Goal 6. The existing challenges and solutions are summarised below:

- Aged water infrastructure in Georgetown. Progress has already been made with regards

to the replacement of sections of Georgetown's aged water infrastructure. GWI has replaced more than 25 percent of its transmission mains along the stretch from Vlissengen Road to Avenue of the Republic along Church Street. Plans are in place to accelerate and sustain these initiatives in order to minimise water wastage and improve water use efficiency, service quality, and reduce water losses, however this is contingent financial resources. The cost of replacing all required transmission mains is over $2 billion (SDG Target 6.4)

- High cost of energy for the operation of the water utility company. Energy costs accounted for 29.6 percent of operational costs in 2022, compared to 30.8 percent in 2019. Currently, energy accounts for 35 percent of operational costs, however in response, Guyana is seeking to source energy through renewable sources and right-size operations using improved technology. Further, Guyana's Gas to Energy project is also expected to lower energy costs. This is described further under Goal 7.

- Challenges in adopting market-based mechanisms to cover the cost of operations include disparities in ability and willingness to pay. Given the relatively high marginal cost to extend distribution networks across Guyana's varied topography, ongoing support for the water sector will be needed for the foreseeable future.

- Increasing access to treated water in the hinterland continues to be a national priority. Notwithstanding the enormous geographical and financing challenges, Guyana has sought to address this issue through the implementation and financing of a specialised department within the GWI to cater to the needs of hinterland and riverain communities. This Department is staffed with specialists skilled in solar and photovoltaic systems, including well drilling experience and knowledge of the hinterland terrain. As such, the Department was able to install more than 11 photovoltaic systems in different hinterland communities, to support the water supply networks during the period under review (SDG Target 6.1).

- Enforcement of legislation governing solid waste and water pollution needs to be strengthened to prevent the contamination of fresh water sources which are affected by the use of pesticides, fertilisers, and other chemicals such as mercury. Guyana plans to review its water pollution legislation and work to ensure that enforcement of regulations is improved (SDG Target 6.3).

- Notably, during the COVID-19 pandemic, due to the restrictions on movement around the country, maintenance of weather stations was negatively impacted, as well as the timely collection of data. In response, significant investments have been made to strengthen technical capacity and ensure continuous monitoring of the availability and quality of Guyana's water resources (SDG Target 6.3).

- The pandemic also adversely impacted the operational efficiency and finances of the GWI. During the first half of 2020, the agency was unable to effectively read all metered accounts and deliver bills. This resulted in a substantial increase in estimated billings, and in a more than 30 percent reduction in revenue collection in the first quarter, which protracted into the second quarter of 2020. Overall, the utility recorded a more than 40 percent below target revenue collection for the period.

- Logistics and shipping of critical spares and materials were severely affected by the pandemic, thereby curtailing the expansion of networks and access to new service connections for customers. Additionally, the implementation of measures to support the country in its fight against the COVID-19 virus resulted in the utility's decision not to disconnect any service, thus ensuring continuity of service and access to water, which was even more critical at that time. However, this had a negative impact on billing and revenue inflows. Overall, the pandemic adversely impacted the work and operational efficiency of the utility company, which resulted in an increase in water losses. However, today the utility is in a better financial state and Government has provided increased capital investments to ensure expansion and improved access to potable water supply services across the country.

- Plans are in place to roll-out a septic tanks and ventilated improved pit latrines programme to ensure open defecation is eradicated and 100 percent of the population

has access to improved sanitation facilities by 2030. Approximately, 14 percent of Guyana's population still utilise unimproved sanitation facilities, including practicing open defecation. However, some of these issues are multidimensional based on geography, topography, and lack of services as it relates to the use of pit latrines. (SDG Target 6.3).

- A significant injection of capital is required for constructing, for the first time, wastewater treatment plants, especially to cater for densely populated areas. As noted earlier, the construction of a large treatment plant for Central Georgetown is estimated at US$40 million and will result in the expansion of the Georgetown Sewerage Network with new boundaries to the north – the Rupert Craig Highway, to the east – Sheriff Street, to the south – Alexander Village, and the Demerara River to the west, with the inclusion of River View and neighbouring villages (SDG Target 6.3). In addition, Guyana is proposing to conduct a comprehensive study on wastewater and sanitation that will be used to inform future interventions in the sanitation and wastewater sub-sectors nationwide (SDG Target 6.3).

- The impacts of climate change and extreme weather events highlighted the capacity limitation of our systems. The 2021 floods also highlighted the gaps in the Hydrometeorological Department's ability to conduct hydrological forecasts, as well as the need to strengthen early warning systems within the country. This is important to aid in the development of appropriate measures to control flood risks, mitigate flood hazards, manage environmental and water resources systems; and overall reduce risks to citizens both along the coast and in the hinterland. In addressing early warning systems, Guyana will seek to build human capacity, strengthen national and transboundary cooperation and data sharing to enhance forecasting, as the 2021 floods were not linked solely to rainfall in Guyana, but the effects of the Amazon. Strengthening existing early warning systems requires significant investment to expand its scope, which currently targets four areas (Lethem, Chenapou, Kwakwani and Paurima). This should be considered in conjunction with the implementation of the Civil Defence Commission's (CDC) Multi-Hazard Early Warning Systems Roadmap 2021 (draft), and potential existing work of Hydrometeorological and other agencies.

As Guyana looks towards 2030, it must take cognisance of increases in the urban population driving demand for expanded water services, which is directly related to the national housing programme. As such, the need for integrated planning among key stakeholders will be even more critical in the medium term to ensure that supply of services is able to keep up with demand. Further, commercial demand for water services is also increasing with the growth of the tourism industry and is likely to expand further as manufacturing expands with anticipated cheaper supplies of energy. Guyana is expected to add several internationally branded hotels to its stock over the coming years, which has a direct implication for commercial water services. In addition, the growth in the oil and gas industry is also driving an increase in industrial demand for water services (SDG Target 6.4 and 6.5).

In light of all the demand pressures on Guyana's water, assessing Guyana's availability of water for domestic, commercial, and industrial uses from the different sources is critical. Through a collaboration of ACTO, the EPA and the Hydrometeorological Service, work is expected to be conducted which will address the transboundary nature of the coastal aquifer system shared between Guyana and Suriname with the potential for the development of an agreement to effectively manage these resources. In addition, there will be a pursuit of coastal aquifer studies and the Upper Takutu Basin will also be studied using state of the art geophysical investigation technology. As a result, there will be a map out of ground water reserves in rocky formations across various hinterland communities. The use of this technology will facilitate a cost effective well drilling programme for water wells in drought prone areas (SDG Target 6.4).

Within recent years, Guyana has also seen an increase in the influx of migrants, particularly in hinterland border communities which has been a challenge to some of their host communities for the provision of basic services and has posed public health risks due to improper sanitation practices. This has already started to exert pressure on existing systems and resources. According to

the International Organisation on Migrations, Guyana has a registered migrant population of over 15,000 in 2019. Financing required to provide public services to these communities continues to increase annually (SDG Target 6.2).

## Lessons Learned

The current review period for the implementation of the SDGs will always be remembered for the COVID-19 pandemic, which has taugh t us many lessons and changed several aspects of how public services are delivered, with water and sanitation being no different. In fact, water and sanitation emerged as critical components to the fight against the pandemic, handwashing in particular. As such, the importance of education and communication around correct handwashing practices proved invaluable, as Guyana sought to stave off the deadly impacts of COVID-19. In this regard, Guyana ramped up its WASH programme.

Importantly, it was noted that there is need for greater collaboration, communication and stakeholder engagement among agencies and private-public partnerships related to WASH initiatives. Further, strengthening of partnerships, coordination, and communication among key sector institutions and stakeholders is also vital to ensure that the IWRM framework, as set out in the LCDS 2030, is implemented. This also ensures more coordinated efforts are made during project development and implementation, to reduce wastage of resources and redundancies (SDG Target 6.b).

Another lesson which was reinforced during the reporting period is the importance of culture in development planning, particularly regarding sanitation. Changing behaviours and traditions takes time and thus interventions must factor in culture and its effects on behaviours around sanitation. Also related is the need for greater collaboration among the government agencies responsible for the affairs of migrants, in order to effectively address the spillover effects of migrant settlements.

Information and communication technology proved particularly invaluable during the reporting period, as the main means of guaranteeing the continuation of service delivery in many cases. For GWI, the importance of increasing its meter coverage through the use of technology cannot be underscored as it enabled e-billing, meter reading, and revenue collection during the COVID-19 pandemic.

## Financing Key Initiatives

Gaps still persist as Guyana seeks to finance the implementation of key initiatives towards achieving SDG 6 and thus innovative means of financing must be sought to fill said gaps. Particularly regarding access to potable water and treated water coverage (SDG Target 6.1), it is estimated that the gaps in financing to achieve this target amount to US$70 million; while for SDG Target 6.2, the estimated financing gap is US$62 million; and (SDG Target 6.4) the estimated financial gap is US$50 million to reduce water losses. The overall gap in financing to achieve the targets in the potable water sector is estimated at around US$176.8 million. See table below for details.

**Table 1:** Funding Gap to meet key components of SDG 6 Target, 6.1, 6.2, & 6.4

| Target No. | National Objectives | Funding Gap 2024-2030 (US$ MNs) |
|---|---|---|
| 6.1 | Increase proportion of population with access to reliable supply of potable water | 20.0 |
| | Increase Treated Water Coverage | 50.0 |
| 6.2 | Construction of Wastewater Treatment Plant | 40.0 |
| | Construction of septic tanks (Proportion of population with access to improved sanitation facility) | 12.0 |
| 6.4 | Water Loss Reduction | 50.0 |
| 6.4 | Hydrometeorological Systems Strengthening | 4.8 |
| | **Total Estimated Sum** | **176.8** |

Source: GWI Programme Estimates and Hydrometeorological Strategic Plan

### Key Strategic Partnerships in the Water Sector For Achieving SDG 6

Several national, regional and international agencies are involved in achieving the Targets within this Goal. Among the international agencies included are Caribbean Community Climate Change Centre (CCCCC); Caribbean Development Bank (CDB); European Union (EU); Inter-American Development Bank (IADB); Japan-Caribbean Climate Change Partnership (J-CCCP); UNDP/ UNICEF; and Pan American Health Organisation (PAHO)/WHO (SDG Target 6.a).

## Data Systems Strengthening

Investments in data strengthening systems are paramount to ensure that the agencies in the water and sanitation sector are sufficiently informed to make critical decisions regarding the development of the sector, especially in light of the emerging issues the sector currently faces. Additionally, gender mainstreaming in policies and programmes is essential for bridging gaps. As such, data collection must also have a gender lens in order to assess how different groups are affected by and targeted in programme interventions.

The existing hydrometric and water quality networks have expanded over the past four (4) years, however, there have been various challenges that have delayed or hindered advances in monitoring and data management of water resources for the country. A major challenge is the remoteness and accessibility of some locations for the establishment of weather stations, and the ability to continually maintain these stations. Efforts have been made to address this through the shift from manual to telemetric instrumentation such as Geostationary Operational Environmental Programme satellite-supported equipment, which would reduce the difficulty of receiving timely data from stations in conjunction with the Direct Readout Ground Station which is being set up to aid this process. According to the Hydrometeorological Services' Strategic Plan an investment of US$4.8 million would be necessary to enhance the Service's capacity, by strengthening infrastructure and improving institutional and human capacity to deliver effective services.

**Table 2:** GWI SDG Indicator List

| SDG No. | Target No. | GWI Indicators (Strategic Plan 2021-2025) | Historical Data | | | | | | | | Target | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Actuals | | | | | | | | | |
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024/25 |
| 6 | 6.1 | Proportion of population with access to reliable supply of potable water | 96.4% | 96.7% | 96.7% | 96.8% | 97% | 97% | 97% | 97% | 98% | 100% |
| 6 | | Proportion of hinterland population with access to reliable supply of potable water | N/A | N/A | N/A | 31.4% | 33.8% | 46% | 60% | 75% | 85% | 100% |
| 6 | | Proportion of iron tests carried in the distribution that confirm to WHO guidelines | N/A | N/A | N/A | N/A | 46% | 47% | 54% | 49% | 90% | 95% |
| 6 | | Proportion of total coli form tests carried in the distribution that confirm to WHO guidelines | N/A | N/A | N/A | N/A | 90% | 90% | 93% | 93% | 100% | 100% |
| 6 | | Proportion of coli tests carried out in the distribution that confirm to WHO guidelines | N/A | N/A | N/A | N/A | 98% | 95% | 93% | 91% | 100% | 100% |
| | | Proportion of turbidity, pH, apparent colour carried out in the distribution that confirm to WHO guidelines | N/A | N/A | N/A | N/A | 86% | 77% | 77% | 82% | 95% | 95% |
| | | No. of water treatment plants | 25 | 25 | 25 | 28 | 29 | 29 | 29 | 29 | 29 | 42 |
| | | No. of wells drilled | 4 | 0 | 6 | 9 | 8 | 6 | 14 | 15 | 38 | 38 |
| | | *No. of coastal wells drilled* | *4* | *N/A* | *N/A* | *5* | *1* | *1* | *4* | *0* | *3* | *8* |
| | | *No. of hinterland wells drilled* | *N/A* | *N/A* | *N/A* | *4* | *7* | *5* | *10* | *15* | *35* | *30* |
| 6 | | No. of new service connections | 4,594 | 4,582 | 4,121 | 4,376 | 3,139 | 3,876 | 5,127 | 5,221 | 5,000 | 10,000 |
| 6 | 6.2 | Proportion of population with access to improved sanitation facility | 85.3% | 85.8% | 85.8% | 85.8% | 85.8% | 98% | 98% | 98% | 98.2% | 99% |
| | 6.4 | Percent of non-revenue water | N/A | N/A | N/A | N/A | N/A | 70% | 68.6% | 65.2% | 61% | 55% |
| | | No. of meters installed | 7,587 | 4,343 | 9,016 | 11,437 | 5,177 | 2,974 | 15,788 | 20,200 | 31,000 | 60,000 |
| 6 | | Proportion of metered customers | 46% | 47% | 49% | 50% | 50% | 51% | 53.5% | 59% | 75% | 90% |


# GOAL 7:

Ensure Access to Affordable, Reliable, Sustainable and Modern Energy for All

## Modern Energy Development Context and Key Achievements

A key constraint to economic growth and improved well-being in Guyana has been the inadequacy and dilapidated state of energy infrastructure in the country. Key constraints include inadequate generation and supply of electricity, unreliability of supply and exorbitant costs to consumers. Additionally, the existing infrastructure is almost entirely dependent on heavy fuel oil. Guyana has some of the highest electricity rates in the Americas and is about 97 percent dependent on imported fossil fuels. Using natural gas as a transition from heavy fuel oil, followed by an expansion of solar, wind, biomass and hydropower, Guyana will see substantial growth of renewable energy across the country. Without this transition away from today's energy sources, both greenhouse gas emissions and consumer costs will remain high, given Guyana's reliance on imported Heavy Fuel Oil (HFO) and diesel for electricity generation. Guyana aims to be powered by about 60 percent renewable energy by 2030[8]. Energy use can increase five-fold, with greenhouse gas emissions staying approximately flat – registering one of the highest levels of decoupling of economic growth and fossil fuel use for energy. .

### Policies and Plans and Legislative and Institutional Frameworks

LCDS 2030 sets out a model that will lay the foundation for growing the economy five-fold over 10 years and keeping energy emissions flat.

The LCDS 2030 states that the "Government intends to return to a strategy of decoupling economic growth from using fossil fuels for electricity by developing low-carbon energy resources (solar, wind, biomass, hydropower and natural Gas) to meet rapidly rising demand" and "introduce effective measures aimed at increasing energy efficiency at the national and local levels." (SDG Target 7.2). Guyana's energy transformation is intended to provide affordable, stable, and reliable energy to benefit both households and businesses. The Energy Supply Matrix, being advanced will provide an energy mix that includes hydropower, natural gas, solar and wind, which will lead to more than 500MW of newly installed capacity for residential and commercial users.

In order to achieve this national objective, the policy measures Guyana intends to implement include the following:

- the installation of a 300MW gas to energy plant
- completion of 165 MW Amaila Falls Hydroelectric Project
- urgent upgrade of transmission and distribution systems of the national grid
- investment in solar, wind and hydropower systems for off-grid areas
- expansion of the Hinterland Electrification Programme
- promotion of energy efficiency in the residential, commercial, and industrial sectors.

The financing for the infrastructure development needed to realise Guyana's renewable energy objective will be sourced from the national budget, private sector investment and increased revenues from forest climate services. Implementation will be through a phased approach as outlined below:

8 https://lcds.gov.gy/wp-content/uploads/2022/08/Guyanas-Low-Carbon-Development-Strategy-2030.pdf

- In the period 2022 to 2028, a near tripling of electricity demand will be met mainly through a combination of natural gas and hydropower on the Demerara Berbice Interconnectivity System (DBIS), coupled with a major expansion of solar power for the main coastal urban areas and with batteries for off-grid areas.
- From 2028 to 2032, further increases in electricity demand will be met by continued replacement of HFO, expansion of wind and solar power and the commissioning of Guyana's second hydropower plant, the site of which will be identified before 2025.
- From 2032 onwards, expansion will be determined by prevailing market conditions, but it is likely that battery and hydrogen technology will be sufficiently advanced to enable solar and wind plants to provide most new capacity increases while contributing to further downward pressure on electricity prices.

Further, to ensure institutional coordination among agencies with responsibility for energy, in February 2021, a new Guyana Energy Programme Implementation Working Group (EIWG) was established in recognition of the policy objectives and priorities of the energy sector. The EIWG supports ongoing and proposed energy projects within Guyana's energy mix to ensure a coordinated, efficient and sustainable approach for planning, implementation, and management of all energy infrastructure projects within a programmatic framework.

## Accessibility and Affordability of Modern Energy

Implementation of the various energy policies and programmes, to date, has resulted in approximately 89 percent of the country's population being connected to the national electricity grid, while the remainder– primarily in the hinterland – have limited access to affordable and reliable energy services. In addition, about 92.6 percent of the urban population and 82.9 percent of the population in rural areas have access to electricity (SDG Target 7.1). Of note, in licensed areas, the percentage of dwelling units with access to electricity increased from 70 percent in 2002 to 89 percent in 2022. Notwithstanding the current position, Guyana intends to achieve full coverage of licensed areas within the next 10 years.

Affordability is a critical component to Guyana's energy transition journey. Currently, the average electricity rates (USD/kWh) for each customer category are as follows: residential customers – US$0.20, commercial customers – US$0.26 and industrial customers – US$0.24. When compared with major manufacturing countries in the Region, the US Department of Energy notes that the commercial rate in Trinidad and Tobago is US$0.06 and US$0.20 in Jamaica. Guyana is aware of these higher-than-average rates for electricity, and thus the Gas to Energy project is being pursued and this is expected to cut electricity costs by at least half.

Guyana has already taken steps toward ensuring affordability of electricity, including through the exemption of Customs Duties and VAT on machinery and equipment imported for the purposes of generating and utilising renewable energy. These include solar panels, solar lamps, deep-cycle batteries, solar generators, solar water heaters, solar cookers, direct current (DC) solar refrigerators, direct current (DC) solar freezers, direct current (DC) solar air-conditioners, wind turbines, water turbines, and power inverters; and energy-efficient lighting, including compact fluorescent lamps and light-emitting diode (LED) lamps. Guyana's Government has removed all taxes, on all-electric motor vehicles of any power rating in keeping with the commitment to develop the country along a low carbon pathway. Further, in support of business' investment decisions to switch to more environmentally friendly vehicles, Guyana has implemented an increase in the writing down allowance applicable to all-electric motor vehicles to 50 percent annually (SDG Target 7.1). When combined with the major energy initiatives Guyana is pursuing, accessibility and affordability will be well within reach by 2030.

## Access to Solar Energy

Guyana has made considerable progress in advancing access to solar energy over the past four (4) years, moving from 5.35 megawatts solar photovoltaic capacity in 2019 to 11.31 megawatts at the end of 2022, a 111 percent increase. This increase was mainly driven by the 1-megawatt Lethem solar PV farm commissioned in 2022 and the 3.32-megawatt Distributed Energy Resource (DER) grid-tied system, while capacity increased by approximately 628 kilowatts each of the other years. More specifically, prior to 2020, solar photovoltaic (PV) capacity at public buildings stood at 5.35 megawatts, with 310 solar PV systems installed at public buildings including exhibition centres, schools, and hospitals. At the end of 2020, this capacity increased by 626 kilowatts to 5.98 megawatts with the addition of the 0.4-megawatt Mabaruma solar PV farm, 18 solar PV systems at Government buildings, 4 solar PV mini-grids at Yarakita, Hotoquai, Chinoweng and Phillipai, and a solar PV micro-grid at Moraikobai (SDG Target 7.2).

In 2021, the solar PV installed capacity increased by 630 kilowatts to 6.61 megawatts with the addition of a 0.4-megawatt solar PV system at the Caricom Secretariat, 22 solar PV systems at public buildings, and 5 solar PV mini-grids at Akawini, Bethany, Kabakaburi, Monkey Mountain and Achiwib. Further, in 2022, the solar PV installed capacity increased by 1.38 megawatts to 7.99 megawatts with the addition of the 1-megawatt Lethem solar PV farm, 10 off-grid systems at Loo Creek in Region 4 (0.015 megawatt), and 59 solar PV systems at public buildings (1.3 megawatts) (SDG Target 7.2). Additionally, at the end of 2022, the Guyana Power and Light (GPL), the national electricity utility company recorded 95 private Distributed Energy Resource (DER) grid-tie systems which totalled 3.32 megawatts. The utility company also commissioned a 1.5-megawatt solar farm operating as a solar-diesel hybrid plant at Bartica, in Cuyuni/Mazaruni – Region 7, in March 2023 which is projected to reduce the usage of Light Fuel Oil by approximately 20 percent annually for the Bartica power system (SDG Target 7.2).

**Figure 16:** 1MW Solar Farm at Lethem, Region 9

For 2023, the solar energy programme includes the installation of 19 solar PV mini grids for public and community buildings across five (5) of Guyana's 10 Administrative Regions. Mini grids will be installed at Sebai, Karaburi, Kwebanna, Haimacabra, Baramita and Canal Bank of Barima/ Waini – Region 1; Wakapao, Capoey Mission, St. Monica and Tapakuma, of Pomeroon/Supenaam – Region 2; Waramadong, Paruima and Jawalla of Cuyuni/ Mazaruni – Region 7; Kurukubaru of Potaro. Siparuni – Region 8; Annai, Karasabai, Aishalton and Kraudarnau of Upper Takutu/Upper Essequibo – Region 9; and Riversview of Upper Demerara/ Berbice – Region 10.

Moreover, in 2023, Guyana will be implementing an electrification project that will supply, deliver and install 30,000 Solar PV Home Energy Systems for hinterland and riverine communities. The systems are designed to provide electricity to unserved homes in hinterland and riverine communities using a clean and renewable source of energy. The project is expected to benefit over 200 communities (SDG Target 7.1 and 7.2).

Guyana intends to pursue an accelerated pace of transition to renewable energy, and thus by the end of 2023, the installed capacity is expected to increase by 5.71 megawatts to 17.02 megawatts. This increase is triggered by the addition of 3 major solar farms – Bartica (1.5MW), Wakenaam (0.75MW) and Mahdia (0.65MW) solar PV farms as well as the completion of the 19 solar mini-grids, installation of 10,000 units under the solar home energy systems project, completion of the Kato hydropower project and continuation of the ICT Hub project. Once installed, this will benefit 100 percent of the hinterland and / or rural households. Works are already underway for a further 33MW to be delivered by 2025 (SDG Target 7.2).

**Figure 17:** 1.5MW Solar Farm at Bartica, Region 7

## Access to Natural Gas

Guyana's oil and gas industry brought the opportunity to tap into natural gas reserves. In December 2022, Guyana's Government inked a US$759 million contract for the construction of an integrated Natural Gas Liquids (NGL) Plant and the 300-megawatt (MW) combined-cycle gas turbine (CCGT) power plant at Wales, West Coast Demerara (WCD), Region 3. This natural gas liquids and the combined cycle gas turbine plants are the single largest investment in Guyana's energy sector to date and a demonstration of Guyana's commitment to reducing energy costs for the population. By 2025, the plant is expected to cut emissions by 70 percent and reduce electricity tariffs by 50 percent, thereby being one of the major catalysts of Guyana's economic transformation. Notably, reduced energy costs are anticipated to be coupled with significant increases in productivity, and ultimately Guyana's improved competitiveness on the global market (SDG Target 7.2 and 7.b).

## Access to Hydropower Energy

Guyana's capacity for hydropower generation is directly linked to its expansive supply of water from multiple sources. The LCDS states "Hydropower has the potential to provide Guyana with both utility-scale and small-scale capacity". Guyana has a potential for 8.5 Gigawatt (GW) of hydropower

from some 33 hydropower sites (including storage capacity and run-of-river). As Guyana seeks to expand its hydropower capacity, it has started construction of a 1.5MW hydropower facility at Kumu, as well as the rehabilitation and upgrade of the defunct 0.7MW Moco-Moco hydropower plant in Region 9, by 2025. This, in addition to the solar home systems will represent the provision of sustainable energy sources in the Upper Takutu – Upper Essequibo Region to 100 percent of the households. Further, it is anticipated that Guyana will build two hydropower plants over the next 20 years: Amaila Falls and another which is still to be identified. It is expected that the new site will be identified by 2025. These large-scale projects will be the main drivers of Guyana's hydropower transitions with the goal of providing 350MW of capacity by 2035 and a further 250MW of capacity by 2040 (SDG Targets 7.2 and 7.a).

## Sustainable and Modern Energy Services

Guyana is still in the infancy stages of transitioning to the use of mobile electric vehicles – between 2019 and 2022, 143 have been imported. In 2023, Guyana introduced new tax legislation, offering the removal of all taxes, on all-electric motor vehicles of any power, an increase in the writing down allowance applicable to all-electric motor vehicles to 50 percent annually to foster an increase in demand for these vehicles on the local market. Further, six (6) public electric vehicle charging stations to catalyse e-mobility in Guyana and provide comfort to persons interested in investing in e-mobility were tendered in 2022 through a demonstration project. It is anticipated that the installation and commissioning of the public charging stations will be completed in 2023. Noteworthy, by 2030, Guyana aims to have made significant progress in its transition from a transportation system largely built around petroleum and diesel vehicles, to one which introduces other affordable and competitive transportation options including electric and lower-carbon public and private transportation (SDG Target 7.2).

Additionally, Guyana is also transitioning to greater use of electric stoves, as between 2020 and 2022, 3,165 were imported, moving from 449 in 2020 to 1,487 in 2022, while 293 have already been imported as of April 2023.

## Promoting Energy Efficiency

Energy efficiency and conservation are key components to Guyana's energy transition and has remained a main message in our public awareness campaign on energy. The core areas of focus are:

- Public service announcements using traditional and modern media; distribution of brochures, flyers; and the "Green My Life" booklet which was launched in 2020. The booklet provides a consolidation of recommendations to live a safe, healthy, efficient and overall green life. (SDG Target 7.3)
- Installation of light-emitting diode (LED) lights in public buildings, residences and businesses. Over 60,000 bulbs were installed in 4,503 buildings across Regions 1, 3, 7, 8 and 10. (SDG Target 7.3)
- Development of the Energy Management and Conservation Practices manual, through collaboration with the Energy and Resources Institute (TERI) of India. (SDG Target 7.3)

Moreover, at the level of Latin America and the Caribbean, a Regional Energy Efficiency Building Code (REEBC) was adopted in 2019, as a voluntary national standard. Adoption of this standard is intended to foster energy-efficient building designs and reduce energy consumption in the built environment. The Code focuses on the envelope, cooling system, ventilation, pumping, lighting, and the service water heating systems in buildings. Several other standards have been adopted, including energy labelling standards for compact fluorescent lamps (CFLs) and LED lamps (GYS 577 – 2021); air conditioners (GYS 578 – 2021); and a standard for energy management systems (GYS 503: 2019); all developed to promote energy efficiency and conservation (SDG Target 7.3).

In 2022, GPL implemented a Net Billing Programme in the second half of 2022, to encourage the development of renewable energy sources by providing financial incentives to customers that generate electricity from renewable sources and feed it into the grid. The 'Feed in Tariff' (FIT) is established aimed to compensate renewable energy Grid-Tied residential and commercial customers for the excess energy exported to GPL's network (SDG Target 7.2 and 7.3).

## Expanding and Upgrading the Transmission and Distribution (T&D) Network

Transforming and expanding the existing network will result in an increase in the number of substations and an upgrade of transmission lines. Additionally, to facilitate efficient power transfer directly from the East Bank of Demerara to the East Bank of Berbice, the company will introduce power transfer over longer distances at the 230kV level, instead of at the 69kV level, this will result in reduced power losses since higher voltage transmission lines experience lower power losses compared to lower voltage lines. Power loss occurs as heat during the transmission and distribution of electricity. By using a higher voltage like 230kV, the resistance losses in the transmission line are reduced, resulting in more efficient electricity delivery, and minimizing wasted energy. These new higher voltage lines will also improve the system stability by providing better voltage stability and reduce voltage fluctuations. Fluctuations in voltage can impact the performance of electrical equipment and devices, leading to issues like flickering lights or equipment malfunctions. The higher voltage of a 230kV line helps maintain a more stable voltage profile, leading to improved power quality (SDG Target 7.1).

There will be a phased implementation of a modern Control Centre – Guyana National Control Centre (GNCC), complete with Generation Management System (GMS), Automatic Generation Controls (AGC) and Distribution Management System (DMS). The GNCC is expected to improve and maintain the required level of dispatch of electricity across the network. More importantly, the intention is to increase the efficiency of energy use per unit of Gross Domestic Product (GDP), by sustaining the robust initiatives undertaken over the last 15 years such as replacement of defective meters and upgrading of feeders to reduce transmission, distribution, and commercial losses (SDG Target 7.3).

In order to further expand access to the distribution network, the utility company has sought to simplify and improve the efficiency of processes for customers to access their account information and apply for a new meter. The metering programme has expanded from 202,020 meters in 2019 to 218,922 meters in 2022. Expansion of services and reduction of losses is continuous and are two priority objectives of the company. Network rehabilitation and meter replacement programmes have positively impacted system losses with 628 kilometres of conductors upgraded while 43,313 meters were replaced with Automated Metering Infrastructure (AMI) compatible meters. These will be operationalised in due course with the installation of a smart grid. Overall, system losses reduced by 4.42 percent between 2015 and 2022 (SDG Target 7.3)..

## Challenges, Emerging Issues and Addressing the Way Forward

Guyana's transition to renewable, modern energy sources has not been without its challenges. As a small developing country, Guyana faces many of the vulnerabilities experienced by Small Island Developing States. The capital-intensive nature of renewable energy and energy efficiency initiatives often times exceeds Guyana's domestic financing mobilisation capabilities.

Moreover, with most of the equipment and materials needed to implement renewable energy projects needing to be sourced from abroad, the severe delays in manufacturing and delivery of goods have been a major hindrance and the impact of COVID-19 supply chains continues to reverberate around the globe. Project implementation was stalled in many sectors due to lack of equipment and materials which was compounded by limited private sector capacity.

Guyana's unique geography in its hinterland, poses severe challenges for effective service delivery. Communities are scattered across the vast hinterland, often located in particularly remote areas and thus the cost to produce energy for these areas is higher than usual and requires even more planning and coordination to ensure that they executed. For Year 2022 the average cost of generating one kilowatt hour (1 kWh) of electricity in Region 9 was US$0.66 as compared to US$0.18 for one kilowatt hour (1 kWh) in Region 4. In particular, the settlement locations are scattered, which proves particularly challenging for distributing electricity in the hinterland.

Starting with the T&D network, it is important to note that it plays a critical role in power evacuation from power plants and delivery of electricity to customers across Guyana. The electricity service provided to GPL customers does not meet the reliability and quality requirements of utilities in developed countries. The low reliability is due to the low capacity of generation, the lack of redundancy in key lines, and the low remote supervision and control of the T&D network. Though there has been an increase in the generation capacity, at the same pace as the demand has been growing, keeping a low reserve and excess capacity is inadequate to cater for downtime in the generators.

Notwithstanding these realities, the expansion of the GPL's capacity that is planned over the next ten years – with new power plants using natural gas and renewable energy – will increase the reliability and resilience of GPL to generate the electricity demanded at a much lower cost than what obtains currently. Under the Guyana Utility Scale Solar Photovoltaic Programme (GUYSOL), GPL will be constructing eight (8) solar photovoltaic farms with battery energy storage systems, expected to be operational in 2025. The programme is financed utilising monies earned by providing forest services under the Guyana-Norway partnership.

Looking ahead, to increase reliability in the transmission network to world-class utility requirements, the new transmission lines and substations are being designed to comply with 'N+1 redundancy criteria' (with at least one backup component), by the end 2025. The transmission network will also be expanded to form a real network, avoiding radial configurations where possible. As part of the T&D improvement programme, the existing lines and substations will be progressively upgraded to meet the new redundancy requirements.

Importantly, technical capacity at the community levels needs to be fortified, to provide repair and maintenance services to solar PV systems. The technical and vocational schools continued to train persons in various disciplines. In 2022, a total of 249 women were trained: 78 trained in Basic Solar PV Technology and 171 in Business and Financial Management. Further, the Global Green Growth Institute has provided support in the implementation of solar farms at Bartica, Lethem and Mahdia.

With natural gas providing the means to achieve the early stages of the energy transition in Guyana, over the medium and long term, the most sustainable and resilient energy mix in Guyana will see natural gas augmented by solar, wind, hydro and biomass power plants. Guyana will continue to measure wind speeds at hinterland locations and along the Coast and will use the results to help guide the development of the country's wind energy potential. Further, seasonality, scattered locations, continuity of feedstock and sustaining a robust plant operation culture are factors that have to be considered to harness biomass energy. Guyana will continue to explore sustainable options for biomass utilisation.

### **BOX 2** – Renewable Energy Programmes

Several renewable energy programmes and projects are planned for the period 2023-2024, including:

- Installation of 30,000 solar home energy systems for Hinterland and riverine communities
- Solar PV farms totalling 33 MW of which 10 MW is for the DBIS, 8 MW is for Essequibo and 15 MW is for Linden
- 0.65 MW Solar Farm at Mahdia
- Mini-hydropower plants at Kumu and Moco Moco, Region 9
- Solar powered mini grids in Hinterland communities under government funded projects
- Wakenaam Solar PV Farm financed under the UAE-CREF
- Installation of 3MW grid-connected solar PV system at the Cheddi Jagan International Airport
- 0.6 MW solar PV Farm at Leguan (3.7 acres identified on an island with an area of 7,660 acres, located in Guyana's largest river)

## Lessons Learned

As noted earlier, transitioning to renewable energy is capital intensive and as a Small Island Developing States (SIDS) country, Guyana therefore requires faster and easier access to international financial flows, in order to fast track its transition to renewable sources, in order to impact global climate existential considerations. To support Guyana's transition, loan financing of over US$23 million has been secured towards the completion of three (3) solar farms totalling 3.15MW at Lethem, Bartica, and Mahdia as well as the construction of two (2) small hydro projects at Moco-Moco and Kumu in Region 9 totalling 2.2MW. The capital intensiveness and costliness of transitioning the sector is compounded in some areas in relation to consumer capacity and willingness to pay. In those areas where willingness and capacity to pay is low, commercial losses is likely to be high. Resolving these problems is also a capital-intensive exercise and will require infrastructure such as a smart grids and prepaid meters, all of which requires financing.

Due to the remoteness of some sites and settlement locations in the hinterland, careful analysis of off-grid and mini-grid systems is necessary to ensure optimal selection of technology and infrastructure. Additionally, for hinterland communities, in the majority of instances, women tend to remain in the villages while men leave to seek job opportunities. Therefore, training of women to monitor, troubleshoot and repair systems should therefore be considered and prioritised.

Government ministries/agencies whose input would be required for the completion of preliminary works (such as repairs to roads and bridges) to facilitate the main contractual works, should be identified and included at the inception of project. Constant communication with these agencies is critical for the timely completion of the overall works.

Global supply disruptions resulting from the COVID-19 pandemic significantly impacted the timely manufacturing and delivery of goods and services in the energy sector. Early design approval and monitoring of ordering, manufacturing, and shipping of goods is essential to mitigate project implementation delays.

## Financing Key Initiatives

GPL's Development and Expansion Programme estimates the need for an investment of US$600 million over the next five years to upgrade, expand and equip the power system to take off and manage the forecasted electricity demand, provide services, and operate at the required reliability levels of a modern power utility company and this is catering to only 30 percent of the geographic area of the country.

Further, the learnings during the implementation of solar PV projects in the hinterland will support the development of a larger programme to electrify all hinterland villages. The electrification will be with the most technical and economically feasible solution (interconnection to a larger grid, solar PV and/or mini hydro). The programme will include the enhancement of the productive usage of the energy to increase the long-term sustainability of the mini grids. It is estimated that such a programme would cost US$313 million.

## Data Systems Strengthening

As part of the response to inadequate data, 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, developed a database of energy efficiency indicators for Guyana. The database was completed for the period 2000 to 2019 and is being used to guide data collection activities.

**Table 3:** Select Energy Indicators for 2021

| Indicator | Value |
|---|---|
| Percentage of population with access to electricity | 91.4 |
| Transmission loss rate in national grid (percent) | 25.9 |
| Portion of GDP spent on imported fossil fuels (percent) | 11 |
| Energy use (kWh) per capita | 1,225 |
| Primary Energy intensity (2021) (kg of oil equivalent per USD 1) | 0.14 |
| Renewable energy as percentage of installed capacity | 6.4 |


# GOAL 9:

## Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialization and Foster Innovation

## Infrastructural Development Context and Key Achievements

Guyana's coast is primarily between 19.7 and 39.4 inches below sea level . With increasing climate change pressures brought on by the rising sea levels and increased rainfall, Guyana's infrastructural development is being placed under increasing strain. In response, budgetary allocations to support infrastructural development in construction and transport have moved from $26.5 billion in 2019 to $122 billion in 2022, a 360 percent increase in investment towards creating new infrastructural assets.

Resilient infrastructure helps to drive economic growth within a country. Governments are constantly seeking innovative ways to improve transport infrastructure designs and durability, and Guyana is no exception. The use of new technologies and innovations have been an important aspect of the mission to transform the Guyanese economy; in keeping with the execution of the LCDS 2030. Guyana's investment into climate-resilient transport infrastructure – that is, "infrastructure that is planned, designed, built and operated in a way that anticipates, prepares for and adapts to changing climate conditions" [9] – has included the use of green technologies such as polymers stabilised subbase, geosynthetics, presto geoweb geocell, tensar geogrid, tencate geotextile, milling and recycling of the asphaltic surface and aggrebind soil stabiliser for key infrastructural projects in recent years. These transformative projects have included the reconstruction of access roads at Black Bush Polder, Thomas Lands, Cane Grove as well as the University of Guyana and the farm to market access road at Number 58 Village. Additionally, the rehabilitation of the Linden-Soesdyke Highway and the upgrading of several urban and miscellaneous roads have also utilised these green technologies. Moreover, Guyana has been able to produce sustainable, environmentally friendly structures by adopting the milling process in road construction. This has allowed Guyana to recycle and reuse aggregate materials, thereby reducing its carbon footprint through the reduction in the natural resources used to construct crucial infrastructural works.

Importantly, investment in climate-resilient infrastructure is critical across the Caribbean Region in order to build resistance to the effects of climate change. This is particularly critical in the agriculture sector, where the Caribbean Community, being led by Guyana, is pursuing the regional goal of reducing food imports bill by 25 percent by 2025, while increasing the region's food security. As such, accelerating the incorporation of technology into the operation of key sectors, expanding crucial infrastructure, and increasing investments in research and development to spur innovation, will continue to be critical steps towards advancing the Region and Guyana's development agenda.

## Plan and Policies and Legislative and Institutional Frameworks

Guyana's infrastructural development is critical for the transformation and sustainability of the country and is guided by the national plan, the LCDS 2030. This Strategy notes that oil and gas revenues will be used to provide "Support for diversification of the economy by supporting non-oil sectors and supporting future development all across Guyana. This will involve support for transformational physical infrastructure … – including river, road and air transport networks; the national digital connectivity network; and repairing

9 OECD Environment Policy Paper 4: Climate- resilient infrastructure Policy Perspectives pg. 4

coastal and Hinterland climate protection infrastructure[10]". In addition, the National Land Transport Strategy for Guyana 2016 – 2026, which includes an Implementation, Monitoring and Evaluation and Action Plan intends to contribute to the development of an efficient, effective and sustainable land transport network across Guyana. Road transport in particular is being guided by the 2021 the Climate Resilient Investment Plan for the Road Transport Sector in Guyana, which seeks to increase the resilience of Guyana's road transport sector, so as to ensure that services remain operational for longer and are resilient in the face of extreme natural hazards and climate variability and change.

Air transport is regulated by the Guyana Civil Aviation Authority, while the primary law governing the air transport sector in Guyana is the Civil Aviation Act 2018. Guyana has an 'open skies' policy for air services agreements which is implemented through the facilitation of airlines from different countries, once they are party to an Air Services Agreement. Presently, there is a draft Aviation Strategy, which aims to transform the sector, as documented in the Civil Aviation Master Plan.

In 2018, an analysis of Guyana's riverain transport sector was concluded – the "Regulatory, Institutional, and Technical Requirements for the Modernisation of Riverain Transport in Guyana". The analysis produced recommendations which aimed to improve the river transport operations for passengers and cargo, as well as the financial sustainability of the main river transport provider to the public, Transport and Harbours Department (T&HD). Management, regulation and provision of ferry services as well as the respective components of river transport are designated to Guyana's Maritime Administration Department and Transport and Harbours Department (T&HD).

## Modes of Transport

Guyana has three (3) primary modes of transportation - air, overland via the road network and over water via ferry vessels and water taxis. The road network is expansive in the urban and suburban centres; however, some rural and hinterland populations are not fully served by the existing road network. The geographic terrain, coupled with the remote location of some villages, proves challenging for roads to meet these villages, especially during the wet season. As a result, currently there are small airstrips – served by small aircrafts – that allow access to these villages. As an alternative, there is also riverain transport to and from most villages. See Box 4 for further details.

## Air-Transport

**Figure 18:** Pariuma Airstrip and Village, Kamarang River, Pakaraima Mountains, Region 7

Guyana is focused on improving connectivity between its hinterland and coast by upgrading the means of movement of its people, through the provision of quality, reliable, sustainable, and resilient infrastructure. Air transport planning is currently guided by the Guyana Civil Aviation Master Plan 2020 - 2050 which sets out to: i. improve industry compliance with the International Civil Aviation Organisation Standards, ii. improve aviation safety in Guyana, and iii. improve navigational aids in hinterland regions by the end of 2050. Accessibility to most rural and hinterland villages is primarily via air transport.

Guyana has over 100 hinterland airstrips which are serviced by licensed private airline carriers. Therefore, investments channelled towards maintaining and upgrading hinterland airstrips are imperative in strengthening connectivity between the coastland and remote rural settlements and the hinterland locations. During the review period, approximately $1.3 billion was allocated towards eight (8) hinterland airstrips of which $427 million

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was expended on maintenance while $926 million was spent on upgrades. These hinterland airstrips serve approximately 14 percent of Guyana's population, who reside in those areas (SDG Target 9.1).

Airstrips were upgraded from stabilized local materials (Laterite and other native aggregates) to asphaltic concrete, double bituminous surface treatment and concrete surfaces at a minimum length of 610m to a maximum of 1,220m and a minimum width of 12.3m to a maximum of 30.5m respectively. The works undertaken have improved compliance with international standards for air transport in the area of safety, as well as improved connectivity, reduced potential hazards to aircraft and allowed for larger aircrafts to operate safely.

As Guyana continues to improve service delivery in the hinterland, we will continue investing in the upgrade of hinterland airstrips to ensure that communities in the most remote areas of Guyana are served by quality and reliable transport infrastructure, particularly those communities that still have high dependency on medical evacuations for emergency situations because we have been unable to deliver equitable medical services to those locations.

## Road Network

In addition to our air transport, the national road transport network is a vital to supporting Guyana's economic, social, and cultural activities through the movement of people and goods including agricultural products, construction materials, equipment, and mining supplies from one geographic location to another. Guyana's paved road network is approximately 2,575 km, primarily in the coastal urban centres, whereas its unpaved roads and trails total 7,080 km. The paved road network covers most of the coast in Regions 2, 3, 4, 5, 6 and 10, while the hinterland is mainly characterised by unpaved trails in Regions 1, 7, 8 and 9. However, works have advanced to increase paved roads across the hinterland.

Guyana's overland transport infrastructure planning is currently guided by the National Land Transport Strategy and Action Plan (2016-2026) which provides for "the development of a sustainable and interconnected land transport network within and between existing coastal and hinterland communities and proposed development areas for efficient and safe movement of people, goods and services in support of national development".

Over the past four years, Guyana has invested in the development of climate resilient infrastructure. This has included transitioning from flexible pavement design to rigid pavement designed roads such as, the 2.76 km Mandela to Eccles interlink which was completed in 2022. Rigid pavement design roads are more resilient as they are more resistant to weathering, thereby increasing the durability and lifespan of the road under adverse conditions. Additionally, the following major projects have been undertaken to enhance passenger travel and the movement of goods: i. Sand Hills to Falls Mouth Road upgrade (42 km) in Regions 3 and 10; ii. Orealla to Kwakwani road upgrade (86 km) in Regions 6 and 10; iii. Parika to Schoonord (30 km) in Region 3; iv. IR3 Road (5 km) in Region 5; v. Mabaruma Main Road (4 km) in Region 1; and vi. Lethem Main Road (1.5 km) Region 9 (SDG target 9.1).

The linkage between transport infrastructure and agricultural development cannot be sufficiently underscored as evidenced by Guyana's increased focus on upgrading the quality of farm to market access roads to all season roads. To date, roads in Regions 3, 5, 6 and 10 have been upgraded, with the total length of approximately 29km. Apart from providing access to farms, these roads are also being constructed to access lands in new farming areas. All of this is being undertaken through the Farm Access Initiative which commenced in 2021 and is part of Guyana's drive to increase agricultural output by reducing transport time for produce, through easier access for farmers (SDG Target 9.1).

## Upgrading of the Hinterland Road Network

Hinterland Roads are mostly constructed with localised materials such as laterite, which means that these roads are susceptible to extreme weather and heavy loads. Given that mining and logging are done in the hinterland, these roads are therefore under the pressure of extreme loads from mining and logging vehicles and machinery utilising these networks. This causes the roads to fail at multiple locations, increasing travel times and making accessibility by some vehicles very difficult.

Over the review period, over $5.7 billion has been spent on the hinterland road network to upgrade over 1,685 km of road, however the pace of work was immensely affected by the pandemic, due to supply chain disruptions. Further, Guyana has embarked on the construction roads made of rigid pavement in the hinterland regions. Thus far, the towns of Mahdia and Mabaruma have benefited from this initiative, with over 5 km completed so far in Mabaruma and Mahdia. Additionally, Port Kaituma has had a section of its roadway, approximately 1 km, being upgraded to rigid pavement (SDG Target 9.1).

## Riverain Transport

The Essequibo, Demerara, Berbice and the Corentyne rivers support transport connectivity across the country. Guyana through its T&HD supports riverain transport with a total of seven (7) vessels connecting Regions 1, 2, 3 and 7 via the Essequibo River and its tributaries. More recently, Guyana procured another ferry, at a cost of US$12.7 million, adding this vessel to the national fleet in March 2023. (SDG Target 9.1). It will serve a hinterland region – Barima/ Waini – Region 1 and represents an over 150 percent increase in capacity for the largest vessel to ply this route.

The new ocean going vessel has a capacity for 296 seated passengers, 10 containers of cargo compared with the previous vessels – Kimbia and Barima – 74 and 88 seated passengers respectively; 14 cars and two (2) large trucks, while it features cold, cool, and normal temperature cargo storage. This new ferry will have a turnaround from the capital city of Georgetown to the hinterland of Region 1 of approximately half the time of the previous vessels. The vessel is expected to service the Region two (2) to three (3) times a month carrying 250 tons of cargo per trip as against the 100 tons of cargo transported by MV Barima and MV Kimbia. This will increase the volume of cargo and passengers transiting to and from the region monthly (SDG Target 9.1).

Apart from wharves and ferry stellings, Guyana has barges which serve as river connections within the road network in the hinterland Regions of 7, 8 and 9. These are private barges without which, there would be no means of connection over land to these Regions (SDG Target 9.1).

Beyond the Essequibo River, the Demerara River is the main river for the movement of cargo nationally and internationally. Given its importance to trade and connectivity within Guyana, and to vessels entering from beyond Guyana, the river is constantly dredged, removing an annual average of 507,800 cubic meters of material during the reporting period. The Demerara Harbour Bridge was commissioned in July 1978 and is the primary link connecting the east and west sections of Guyana and is well past its 10 years lifespan. Given expanded economic activity, a new bridge is being constructed at a cost of US$261 million (SDG Target 9.1). Details of the new bridge are outlined in Box 3 below.

Box 3: The New Demerara River Bridge

**The New Demerara River Bridge** is a national flagship project. This new bridge will be a four lane, fixed box girder bridge with a cable stay section at the channel, measuring 2.6 kilometres. It is an important connector, linking the Administrative Regions of Demerara-Mahaica and Essequibo Islands-West Demerara, that is Regions 3 and 4. Considering the impending transformative development mapped for the East and West Banks of the Demerara River, optimal operation of the Bridge is crucial for the regional economies and advancement of national development.

The Bridge is being constructed at a total cost of US$261 million. Construction is planned for 24 months to be achieved by the end of 2024. The Bridge is expected to generate positive impacts from reduced air pollution and noise due to less traffic congestion. Moreover, the bridge will significantly reduce travel time and costs, and therefore, positively influence sustainable economic growth.

Further, the Republic of Suriname and the Co-operative Republic of Guyana have commenced the project for the construction of a bridge across the Corentyne River, linking the two countries. This is a priority infrastructure project for both countries and moreover, this bridge is one of the final nodes to complete the land link of the South American continent. The project is especially important to Suriname and Guyana as it would connect the two countries via road link and enhance bilateral trade and cultural exchanges between the neighbouring states. The project will be implemented over the next three years at an estimated cost of US$300 million. (SDG Target 9.1).

## Sea and River Defence and Drainage and Irrigation Infrastructure and Services

The sea and river defence along Guyana's coast comprises the following: (i) hard sea defence – rip rap and walls, (ii) soft sea defence – mangroves, polders, and natural embankments such as Shell Beach.

Over the last four years, the sea and river defence in Guyana has primarily included preventive maintenance interventions to correct minor defects and address structural deficiencies on existing sea walls, revetments, bulkheads, and embankments, in light of the climate change effects of rising global sea levels. As such, rip rap

solutions have been installed along 16.7 km of coastal areas.

Of note, the Intergovernmental Panel on Climate Change in 2019 reported that global sea level is projected to rise by 15 millimetres per annum if greenhouse gas emission remains at a high rate. With approximately 85 percent of citizens residing along the coastal plain and a significant proportion of agricultural activities also occurring along the coast, Guyana's Government, in the past four years has invested approximately $13.87 billion to aid with the rehabilitation and maintenance of approximately 15.9km and 327km of sea and river defence respectively.

Apart from its sea and river defences, Guyana must also invest heavily in its drainage infrastructure. The National Drainage and Irrigation Authority (NDIA) functions as Guyana's primary organisation delivering public services pertaining to the management, improvement, extension and provision of drainage, irrigation, and flood control infrastructure. The Agency was allocated over $34 billion within the past three (3) years to execute its mandate, receiving $9 billion in 2020, $12 billion in 2021 and $13 billion in 2022.

In 2020, Guyana suffered a major sea defence breach along the Mahaicony shoreline which led to the erosion of the foreshore and depletion of the mangrove fringe. To minimize the impacts of the spring tides, Guyana sought to heighten vulnerable sections of earthen embankment and reinforce stretches of revetment and sea walls, to reduce the extent of overtopping. Additionally main drainage canals and secondary community drains were desilted desilt main drainage canals and secondary community drains that function to better contain and convey overtopping discharge.

Table 4: Disaggregation of Sea and River Defence Works

| Year | Km of new Sea/River Defence structures constructed | Km of Sea/River Defence rehabilitated | Km of Sea/River Defence maintained |
|---|---|---|---|
| 2019 | 4.1 | 3.8 | 89 |
| 2020 | | 5 | 101.595 |
| 2021 | - | 6.1 | 55.571 |
| 2022 | 5.4 | 1 | 81.8 |

In addition to the sea defences, empoldering is the main defence employed along riverain communities. Empoldering means making land that is underwater or periodically flooded, cultivable, by erecting levees to prevent or control inundation through adequate drainage.

## Challenges, Emerging Issues and Addressing the Way Forward

Guyana's low-lying coast and varied mix of topography across the country demand substantial resources to deliver public services. The dispersed population immediately beyond the coast and existing infrastructure gaps further complicate the logistics and elevate the cost of providing public services across the country. Insofar as infrastructure investment shapes economic activity and stimulates economic growth it becomes imperative for developing countries like Guyana to source financing to fund often critical

and catalytic infrastructure address such as transport connectivity, sea defences and climate security. Without these expenditures Guyana's economic resilience and sustainable development would be stymied this making it imperative for Government to source innovative and affordable financing.

Sea and River defences which are both natural and artificial, are placed under additional strain given the rise in the mean sea level. Guyana has begun the process of reforestation of the mangrove along the critical sea and defence areas to mitigate the impacts of climate change, should the risk to the sea defence arise. The mangrove acts as the first barrier, and the artificial sea defence will be maintained and will function as a secondary barrier in these vulnerable regions.

Guyana has seen its construction sector grow constantly and peaking in 2021, with growth being 28.7 percent (Bureau of Statistics (BOS), 2021). This resulting rapid growth in worker demand has led to increased wages and a shortage of skilled workers.

## Climate Change

The adverse effects of climate change have severely impacted Guyana's infrastructure, from its internal and external barriers – sea walls and mangroves to its roads, bridges, and drainage structures. In 2021, Guyana recorded its highest rainfall of 3,541.8 mm within the last decade. Over the course of 2019 through 2022, the average yearly rainfall was 2,751.9 mm, a 26.6 percent increase, when compared to 2,174.5 mm recorded over the period 2015 to 2018.[11] The higher-than-normal rainfall has exceeded the capacity of existing drainage systems, thus forcing government to divert already scarce resources to address infrastructure.

During the last four (4) years, the hinterland regions have been severely affected by flooding, particularly Regions 8, 9 and to some extent 7 and 10. In view of the increased rainfall in Region 9, the water levels continued to rise in the deep south to the South Pakaraimas. According to the Disaster Relief Emergency Fund Final Report: Guyana Floods In 2021, approximately 6,900 household were affected by flooding in Regions 9 and 10. Many communities and farms were submerged thereby forcing families to be relocated. Similarly, coastal areas along the Essequibo Coast, on the islands of Leguan and Wakenaam; on the West Coast of Demerara; on the East Bank of Demerara; along the Mahaica River; and in Region 6; were severely affected by the overtopping due to unusually high spring tides, coupled with heavy rainfall.

On the other hand, Regions 8 and 9, have experienced dry periods with intense heat resulting in increased instances of open fires, which have, also destroyed some wooden bridges used to connect communities. These place increased pressures on government to continuously find resources to rebuild and replace damaged infrastructure which can crowd out capacity to embark on new infrastructure.

## COVID-19

The Covid-19 pandemic and subsequent restrictions to curtail the spread of the virus caused a slowdown and, in some instances, a standstill in hinterland projects. One such project was the rehabilitation of the runway of the Lethem Aerodrome, which had to be extended because of the cross-border lockdown and subsequent limited accessibility to raw materials that were needed from Brazil. The restriction stated that trade between the two countries was only permitted on Thursdays and for a limited time[12]. This greatly impacted the quantity of raw materials available to the project, thus increasing the time for project delivery and costs.

Further, the pandemic unfavourably impacted government agencies forcing work from home or rotation that impacted negatively the Ministry of Public Works which normally required in field work. On the positive side, some areas were enhanced, with contractors being able to complete works along the roadway without the hindrance of the bustling traffic. This allowed these projects to be delivered ahead of time, such as the stripping of the road and road light repairs.

11 https://statisticsguyana.gov.gy/subjects/hydrometeorological/monthly-amount-of-rainfall-for-coastal-regions-guyana-1981-to-2022/

12 https://newsroom.gy/2021/09/29/pm-vaccinated-covid-negative-persons-can-use-guyana-brazil-crossing-on-thursdays-only/

## Lessons Learned

The impact of increased rainfall due to climate change has negatively affected existing D&I infrastructure. Additionally, supply chain delays due to the pandemic served to compound execution of infrastructure projects and ultimately the pace of connectivity and development. Moreover, the cost of replacing and rebuilding damaged infrastructure crowds out expenditure for expanding development of capital formation related to infrastructure in the country. Financing opportunities for transformational infrastructure needs to be easier and faster to access to fast track infrastructural development.

## Financing Key Initiatives

The key initiatives being financed to achieve SDG Target 9.1 include:

Table 5: Key Infrastructure Upgrades in Support of SDG Target 9.1

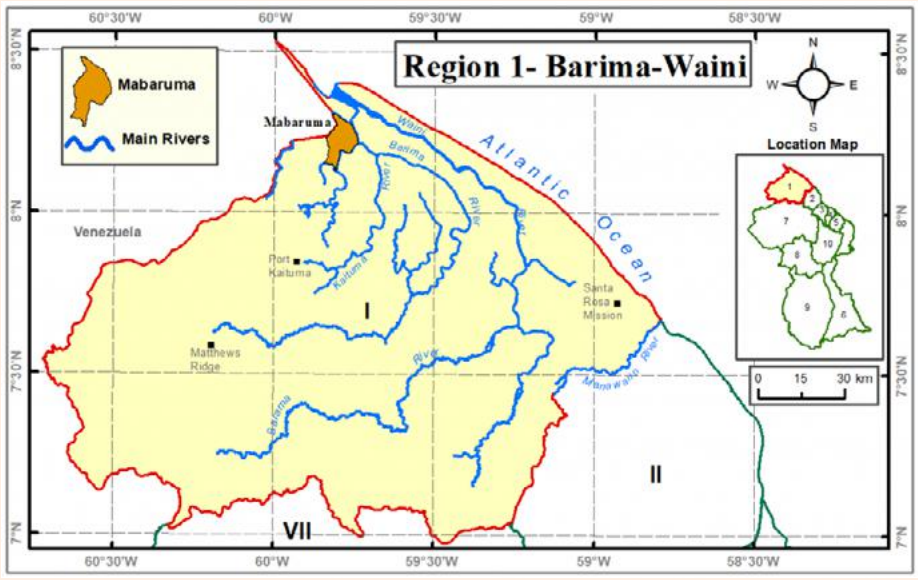
| No | Project | Key Details |
|---|---|---|
| 1 | Rehabilitation of Railway Embankment Road, East Coast Demerara (ECD):<br><br>Four lane upgrades from Sheriff Street to Enmore,<br><br>Construction of New four Lane Highway from Haslington to Orangestein<br><br>Four lanes upgrade to Mahaica Bridge | Climate resilient geofabric is expected to be used for the groundwork, and median and walkway will be constructed to ensure safety for road users. Completion projected estimated for 2025 at a total cost of US$194 million. |
| 2 | Rehabilitation of the 72km Linden-Soesdyke Highway | The Linden-Soesdyke Highway is the main highway connecting the coast to the hinterland via road. Works are expected to be completed by 2025 at an engineer's estimated cost of US$168 million. |
| 3 | Construction of the New Demerara River Bridge | US$261 million infrastructural project to link Regions 3 and 4 to improve connectivity and increase national economic activity |
| 4 | Upgrade of Approximately 90km of Road from Orealla to Kwakwani | Major carriageway for hinterland travel. Upgrades are currently being done in phases. Approximately 35km of upgrade have been completed thus far at a cost of approximately $270 million. |
| 5 | Construction of 8.6 km East Bank to Georgetown bypass (Diamond to Mandela) | Completed 2.7 km section of Mandela to Providence highway, which is already in use. The remaining section is to be completed in 2023 |

## Data Systems Strengthening

The Geographic Information System (GIS) Unit staff was recently trained in the use of specialised software to share maps and other geo-spatial data sets. With this newly acquired capacity, MoPW can now embark on measuring the performance of the roads' projects using GIS technologies. The spatial tools available in the specialised software will be utilised to create buffer zones and conduct the relevant spatial analysis on the requisite criteria. In terms of these data sets being readily available to the respective departments within MoPW, interactive maps and web applications can be developed. Plans are in place to ensure that these interface maps are developed.

Box 4: Case Study – Access to Transportation Network in Barima Waini (Region 1)

**Figure 19:** Administrative Region – Barima Waini




*Source: https://factpage.glsc.gov.gy/region-i/*

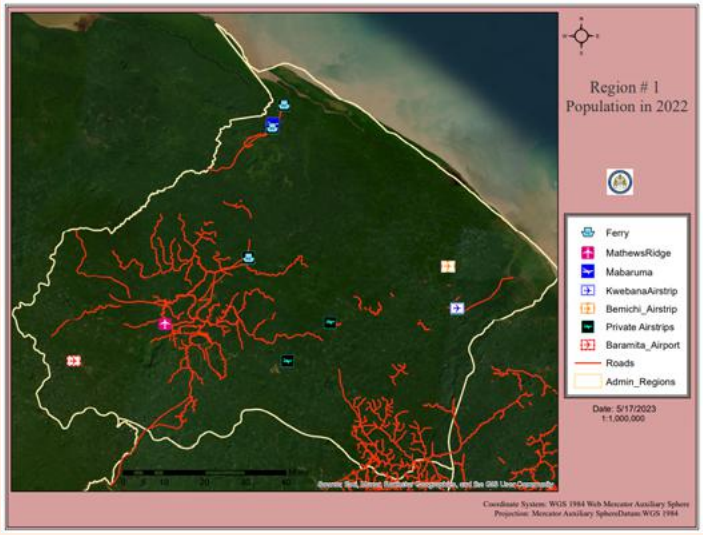


**Figure 20:** – Location of Airstrips, Stellings and Road Network in Region 1 – Source: MoPW

Barima-Waini (Region 1) is only served by air and water transport from the city of Georgetown. Most villages comprise our native people – Amerindians who have traditionally used the waterways as their main mode of transportation to get to and from the Regional urban centres and to carry out their daily functions. Within the Region, there is an expansive road network that is being upgraded on a yearly basis with rigid pavements. There is no road network that links this Region to Georgetown. The Region is served by eight (8) airstrips, five (5) Government operated and three (3) privately operated. It has three ferry stellings to facilitate the movement of passengers and goods to and from Georgetown and is currently served by two ferries (Barima and Kimbia) – soon to be replaced by MV Ma Lisha, which has been commissioned as the designated vessel for the Region.

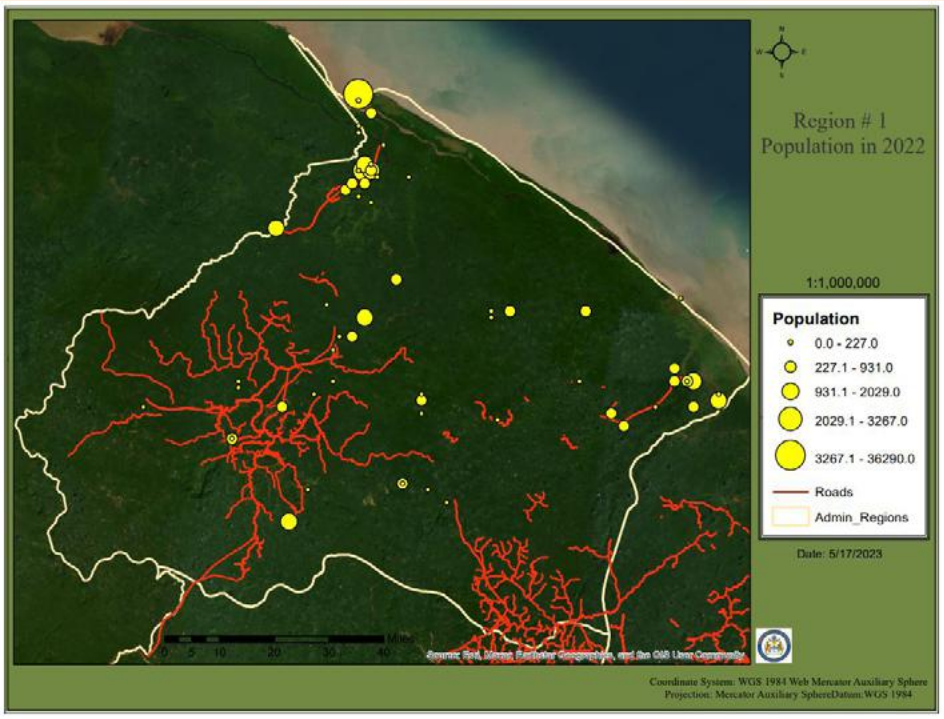



**Figure 21:** – Map of Villages and Population sizes (2022) – Source – MoPW, BoS, Guyana Lands and Surveys Commission (GLSC)

The Region has an estimated population of 36,000, which represents approximately 4 percent of the population. The estimated population in 2018 was 28,073 while in 2022 it was 36,290 persons representing a growth of 29 percent. The area of the region is approximately 19,086km2, which gives it a population density of 1.89 persons per square kilometres as against one of the highest – Dhaka, Bangladesh with 30,093 persons per square kilometre and lowest in Greenland of 0.14 persons per square kilometres. The population is generally scattered across the Region and rely mostly on the waterways for transport. Most villages are along a river or creek (small waterway leading to a river) and the villagers are seen throughout the day traversing in canoes (boats made from tree trunks). This is the mode of transportation for villagers such as school children, healthcare workers, police, Regional Administration officials to get to and from most villages. The road network is primarily in the urban centres with tertiary roads (trails) used to access forest concessions for logging and mining operations. It is estimated that just about 50 percent of the inhabitants live within 2km of an all-weather road (SDG Target 9.1). However, given the uniqueness of this Region and the demand for riverain transport, accessibility to the transport network therefore means both over land and water, therefore making access over 95 percent.

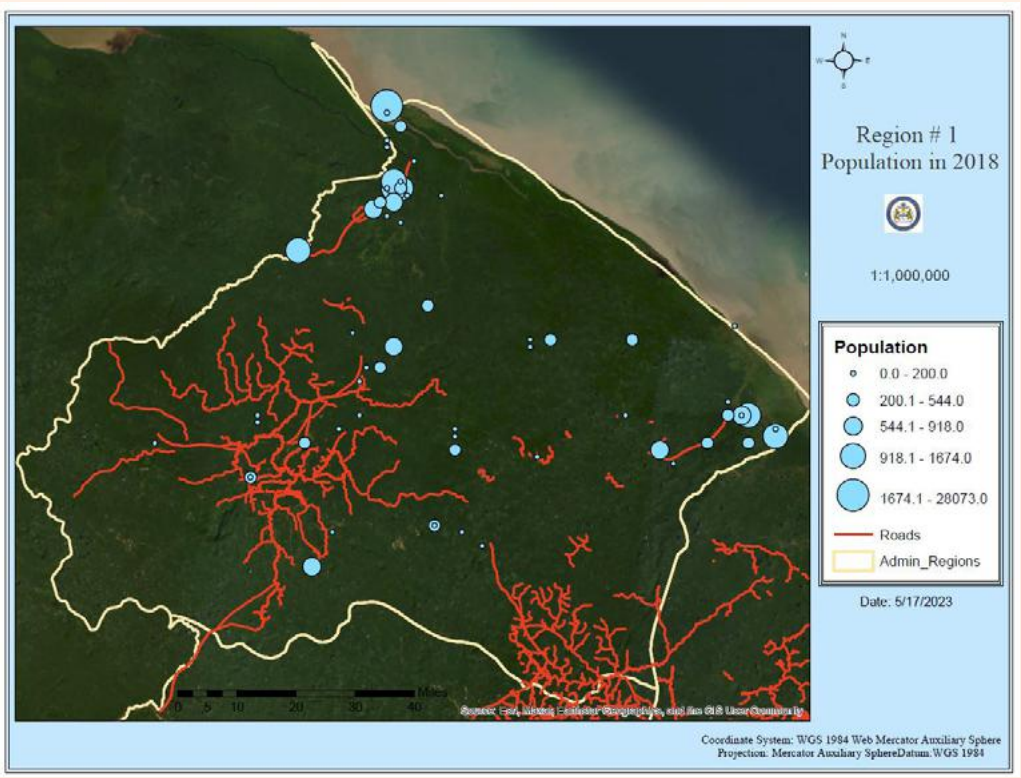



**Figure 22: –** Map of Villages and Population sizes (2018) – Source – MoPW, BoS, GLSC

The population density of the Region does not make it economically viable for the private sector to invest in construction, further, the cost of construction per kilometres is much higher than in urban centres due to high mobilization and transport of material costs. This can cause cost increases per km by over 5 times the cost of the similar construction in an urban centre. The Governments current plan is to provide smaller vessels to ply these riverain routes for the traveling public in these communities. This plan is earmarked for complete roll out by 2030.

## Industrial Development Context and Key Achievements

In Guyana, the health of micro, small, and medium-sized enterprises (MSMEs) is essential to the resilience of the economy, as they account for 60 percent of employment and contribute over 30 percent of the country's GDP [13]. With the addition of the oil and gas sector and related proceeds under the Production Sharing Agreement and the formulation of a gas-to-shore initiative, opportunities have arisen for the transformation of MSMEs and industry, shifting their focus towards value-added production. These businesses are diverse, with involvement in agriculture, manufacturing, services, and retail. In 2019, employment in the manufacturing sector represented 12 percent of total employment but declined to 9.2 percent in 2021 while the contribution to GDP remained positive but recorded 1.9 percent in 2022 down from the 5.5 percent in 2019, due to the impact of the COVID-19 pandemic and associated supply

13 Inter-American Development Bank 2018

chain disruptions (SDG Target 9.2.) [14]. To further support the post-pandemic recovery of MSMEs, in 2023, a sum of $525 million was allocated to provide financial support to approximately 1,100 MSMEs in the form of grants and loans. Additionally, approximately 2,300 individuals are slated to receive training geared at accelerating their adoption of new technologies in order to improve their resilience.

As Guyana seeks to diversify its economy and achieve the Caricom goal to reduce its food imports bill by 25 percent by 2025 [15], the government and private sector have made significant investments in various areas to support this goal. These include the development of standards to improve the quality of local products, increased marketing efforts to access new markets, and expanded financial and capacity-building support from the private sector to help businesses in the food and agriculture sector. This investment has resulted in Guyana's expanding production of teas, flours, dried seasoning, fruit juices, jams, and sauces, as well as the processing of agricultural products such as rice, sugar, and coconut. Guyana has also been focusing on value-added production in the forestry sector which includes the production of furniture, flooring, and decking, as well as processed wood products like pulp and paper [16].

Additionally, Guyana has increased its participation in regional expositions such as the Barbados Agrofest, which has increased exposure of Guyana's products and resulted in increasing regional demand for handicrafts, woodwork items, and processed foods within the Caribbean region and North America. This has presented new opportunities for Guyanese businesses to tap into these markets. Despite the efforts to support the growth of MSMEs in Guyana, there are still some challenges that are limiting their competitiveness, particularly in regional and international markets. Some of the major constraints are the inadequate infrastructure, specifically the high cost of electricity, poor transportation networks, and limited access to financing which makes it difficult for these businesses to operate at a lower cost and remain competitive. The high cost of electricity is not only a financial burden on MSMEs, but it also affects their ability to expand their production capacity and attract investment.

## Policies and Plans and Legislative and Institutional Frameworks

Guyana's industrialisation strategy is guided by the LCDS 2030, which provides a framework for sustainable investment and addressing obstacles to development. In 2019, Guyana launched its Doing Business Action Plan intending to improve the business climate, which resulted in improved coordination among industry stakeholders. In addition, in 2021, Guyana developed its National Trade Strategy: A Trade Policy Framework, which replaced the Strategy developed in 2003. This new and improved framework aims to guide the country's long-term trade development based on principles of competitiveness, transparency, and the optimal use of Guyana's human and natural resources.

The implementation of National Trade Strategy is expected to help Guyana overcome challenges related to market access by providing a clear roadmap for trade policy development and implementation. This will enable the country to take advantage of new opportunities and improve its competitiveness in domestic and international markets. Additionally, the framework will help Guyana to develop strategies to address non-tariff barriers, such as sanitary and phytosanitary measures, packaging and labelling, and technology adaptation, that often hinder market access. By doing so, Guyana can increase its exports and attract foreign investment, creating new economic opportunities and growth.

Further, Guyana has conducted several baseline assessments to identify and address barriers to improving the quality and timeliness of services offered to the business sector. A major barrier affecting the ease of doing business in Guyana is inadequate ICT access and e-services. As such, in 2022, the implementation of the information technology (IT) platform for the Single Window for the processing of constructions permit was initiated under the Reform Simplification Project. This reform is intended to reduce the processing time of applications and increase transparency around the construction application process. The

14 https://statisticsguyana.gov.gy/wp-content/uploads/2020/07/GLFS_Bulletin_2019.pdf
https://statisticsguyana.gov.gy/wp-content/uploads/2019/10/GLFS_Bulletin_2021_Third-Quarter.pdf

15 https://caricom.org/25-by-2025-reduction-in-the-regional-food-bill/

16 Ministry of Natural Resources Guyana: https://nre.gov.gy/natural-resources/forestry/

Single Window is expected to be fully operational by the end of 2023.

Moreover, there has been consistent inter-ministerial partnerships with stakeholders to improve the delivery of government services by monitoring the implementation of reforms, draft regulations, and enhancing the business environment for investment and private sector development. There are also consistent engagements with the private sector through statutory meetings with the Regional Chambers of Commerce in the 10 Administrative Regions of Guyana. Additionally, there are outreaches, seminars and trade expositions which are also attended by the Chambers of Commerce, civil society, the Private Sector Commission, Women Chambers of Commerce, and the Guyana Manufacturing and Services Association. More recently, Guyana passed the Hire Purchase Act in 2022, which outlines the legislative framework to protest the rights of consumers and businesses entering into hire purchase agreements. These initiatives act as a comprehensive approach to remedying business constraints (SDG Target 9.2, 9.3 and 9.4).

## Micro, Small, and Medium-Sized Enterprises (MSMEs) Value Chains and Markets

Guyana aims to leverage technology as well as research and development investments to: i. support the acceleration and transformation of industries, and ii. promote value-added production through agricultural diversification. Realizing that a key constraint to such development is the access to certified and suitably equipped facilities, Guyana has invested in the operationalisation of at least 11 agro-processing facilities, with plans for two (2) more in 2023. Further, to improve manufacturers' access to the necessary support services, Guyana has established agri-business incubators and provided product development training and business facilitation services. Notably, through these efforts, the number of new value-added products (in the Guyana Shop) increased from 37 in 2015 to 214 in 2022. Some of the new and innovative products included sweet potato cake mix, sweet potato flour, banana flour, coconut flour, fruits and vegetables, flavoured wines, fruit flavoured barbecue sauces and dips, baked coconut chips and ready-to-eat cook-up and pepper pot, among other products. There is also ongoing research on the production of rice value-added products such as rice snacks and the use of rice flour in the production of breads and pastries (SDG Target 9.3 and 9.4).

In further support of MSMEs, two (2) business incubators have been established in Regions 6 and 9, marking the first of such facilities directly targeting MSMEs access to manufacturing and business development. The business incubator located in Region 6 began operations in October 2022, having processed approximately 7,725 lbs of raw products to yield 2,711 lbs of finished products with expansion plans in place. In line with the principle of inclusivity and leaving no one behind, a similar business incubator was established in the hinterland, in Region 9. This incubator is equipped with advanced agro-processing facilities capable of producing items such as farine, dried fruits, ground pepper, achars and tea bags. To complement these efforts and facilitate the marketing of these products, the business incubators will provide direct and indirect services such as business spaces for rental at both locations, training facilities and shopfront pods for small businesses to sell their goods and services. This is expected to boost outputs and increase revenues.

*Teabag Packaging Machine (Belvedere) (Photo by Department of Public Information)*

*Sorrel fruit being inserted heat pump dehydrator machine (Lethem) (Photo by Trudy Williams)*

**Figures 23 and 24:** Industrial Machines at Lethem and Belvedere

## Retrofitting Industries

Guyana currently has two active industrial estates which are located in Region 4 – Eccles and Coldingen, with a 91 per cent occupancy rate, engaging in manufacturing, food processing, and construction activities. Recently, two new industrial estates were re-established, one in Belvedere in Region 6 in 2022 and the other in Lethem in Region 9 in 2020, covering a total capacity of 104 plots and 82 acres of land (3,571,920 square feet). The Belvedere estate was constructed in 2020 with a capacity of 12 plots covering 522,720 square feet, while eight (8) plots have been allocated representing an occupancy rate of 67 percent. The main outputs of this estate are wheat and its by-products, cement, and water purification. The Lethem estate, located in the hinterland, was constructed in 2019 and is one of the largest estates with a total capacity of 92 plots and 70 acres of land (3, 049,200 square feet). Allocation of plots has commenced, and the estate is expected to commence operations in 2023 engaging in heavy to medium industrial activities such as pharmaceutical manufacturing, wood and plastic products manufacturing, mineral-based product production, tile, and bricks manufacturing, among others (SDG Target 9.4)

Overall, 118 out of 224 plots are occupied, representing a 52 percent occupancy rate for all industrial estates across Guyana. Efforts are underway to fill the remaining plots through advertising and inviting expressions of interest. Moreover, two (2) additional industrial estates are targeted to be completed by the end of 2023, in Essequibo – Region 2 and Linden in Region 10, at a total cost of $327.8 million. The completion of these estates will increase the size of the estates to 249 acres (10,846,440 square feet) and add 102 plots, bringing the total plots to 326, which will be dedicated to enhancing manufacturing and value-added production. Collectively these facilities are intended to enhance MSME productivity and value chain expansion. (SDG Target 9.3 and 9.4

**Figure 25:** Lethem (Region 9) Industrial Estate inclusive of the Lethem Business Incubators (Photo by MINTIC)

Further, efforts have been made to enhance the skills and techniques of local manufacturers, promote technology transfer, development of standards and marketing of local products. To support this, the New Guyana Marketing Corporation provided technical support to 635 agro-processors and other manufacturers to improve their production processes and expand their markets by offering cold storage and packaging facilities, as well as assistance with quality control, product certification, and logistics between 2020 and 2022 (SDG Target 9.4).

These initiatives were supplemented by the Guyana National Bureau of Standards (GNBS), which provided a wide range of training between 2019 to 2022 to over 2,200 persons inclusive of producers and exporters in ISO certifications, specifically in the areas of Quality Management Systems, Food Safety Management Systems, and Internal Auditing Management Systems. Additionally, Guyana adopted nine (9) new ISO standards, adding to the already existing 121, bringing the total to 130 standards, aimed at improving the quality of produced goods and services (SDG Target 9.4).

**Figure 26:** Businesses receiving Training in Standard Development, March 2023: Photo Credit: GNBS

Importantly, in 2021, Guyana launched the Made in Guyana certificate which provides recognition to locally manufactured products, as the "Made in Guyana" mark symbolises a product's origin as well as the comprehensive framework that is in place for the establishment of high-quality systems within our local content. This initiative is expected to propel Guyanese businesses to the forefront of quality on a national, regional, and international level by creating creates a culture of excellence, inspiring businesses to continuously improve their processes, products, and services. As a result, Guyanese businesses can gain a competitive edge in the marketplace by offering exceptional quality that meets or exceeds both national and international standards. To date, 28 businesses have received this certification with seven (7) being women-owned businesses (SDG Target 9.4).

Moreover, the completion of the National Quality Infrastructure project by 2025 is expected to improve Guyana's National Quality Infrastructure through the construction of a metrology laboratory for the GNBS, to support the development, adoption, and compliance of standards for promoting product quality. Additionally, an Electronic Single Window System for Trade which is slated for implementation by 2024, is expected to enhance trade facilitation capabilities, attract investment, and promote international trade. The system will help to create a more seamless and efficient trading environment by automating processes, reducing transaction costs, and improving the overall competitiveness of Guyanese businesses (SDG Target 9.4).


**Figure 27:** Manufacturing Company Dixie receiving Made in Guyana Certificate. Photo Credit: GNBS

## Incentives and Innovation for Industrial Diversification

The private sector plays a crucial role in developing a resilient, modern, competitive, and progressive economy, and the Guyana Manufacturing and Services Association (GMSA) has been pivotal in driving the expansion of value-added industries in Guyana. To date, there are 136 manufacturers registered with the Association. Through investment in research and development, marketing, and training, the GMSA has promoted innovation and improved the quality of locally produced goods to meet international standards. The 1,000 modular homes initiative, which is a collaboration of stakeholders along the forestry value chain comprising small and medium scale logging concessions and millers is one notable achievement arising from the efforts of the GMSA (SDG Target 9.b).

The GMSA has also actively participated in regional and international expositions, as well as hosting local expos such as UNCAPPED, to encourage small agro processors to improve their packaging and marketing, and create more business opportunities and partnerships, by accessing new markets. UNCAPPED is a local, annual event hosted by the GMSA aimed at promoting products and services offered by some of Guyana's small agro processors. Their efforts are complemented by Guyana's policies and incentives to stimulate the growth of the sector. Incentives introduced since 2020 have included removing Value Added Tax (VAT) on key inputs such as water, electricity, and construction materials. Duties were also removed on machinery and equipment to allow for the recapitalisation of key sectors such as mining, forestry, agriculture, and manufacturing. In 2020, tax concessions were granted for mining, forestry, manufacturing, and agriculture while land lease fees were reversed to pre 2015 rates. Collectively, both private sector and government are expected to intensify efforts to meet the SDG Targets by 2030 (SDG Target 9.b).

The Small Business Bureau (SBB) has been instrumental in promoting local environmentally sustainable, creative, and innovative businesses through the Green Tech Fund Programme, which has provided support to 32 businesses between 2019 and 2022, with an allocated amount of $32 million.


**Figure 28:** Guyana Participation in Barbados Agrofest 2022. Photo by GMSA

**Box 5:** Green Tech Fund Beneficiary – Ride Along GY

Ride Along GY is Guyana's first and only bicycle rental and tour service provider, offering its services to Guyanese and international tourists. This unique enterprise enables tourists to create fun memories while learning about Guyana's history, enjoying scenic sites, and promoting health and fitness. The company's objective is to help visitors understand the beauty of Guyana through the use of an eco-friendly mode of transportation.

Ride Along GY was created in 2021 after receiving $1 million in funding in December 2020, through the SBB's Green Technology Fund. The funding procured the main inputs for the business venture - a laptop, trackers, and 12 bicycles branded with the Ride Along GY logo. In 2022, the business was recognised and awarded the Tourism, Leisure, and Hospitality Award at the SBB's Annual Awards.

Since its launch, Ride Along GY has expanded in size and scope - introducing a hub in central Georgetown; diversifying its services to include specialised packages such as bridal shower rides, picnics for couples and tours for corporate groups; increased the number of employees from two (2) to six (6); increased the number of bicycles from 12 to 22; and created a social media presence through its website and platforms. It also launched a mobile application that allows its guests to make bookings and follow the business from their mobile devices.

## Affordable Financing for Business Development

In addition to industries, small businesses have been a key driver of economic growth in Guyana. According to the Caribbean Development Bank MSMEs make up between 70 and 85 percent of Caribbean firms and contribute between 60 and 70 percent of the region's GDP[17]. Majority of businesses in Guyana are SME's [18]and generate a significant share of employment for inclusive of vulnerable groups such as women, youth, people with disabilities, and hinterland communities. However, the COVID-19 pandemic has had a significant impact on Guyana's SMEs, resulting in reduced revenue and disrupted supply chains. In response, the Small Business Act was amended in 2021 to expand the categories of small businesses that can access loans and grants, and the grant ceiling amount issued by the SBB of Guyana was increased from $200,000 to $500,000. Since this policy change, loan and grant applications for small business assistance have increased rapidly, with a 44 percent increase in 2020 to a 104 percent increase in 2021 (SDG Target 9.3).

As a result of the increased grant and loan applications, more businesses have been able to access financing through the SBB, with 2,864 businesses receiving loans and grants valued at $539. 5 million and $745. 8 million respectively over the past four years. Notably, 60 percent of women-owned businesses have been able to access financing through the SBB. (SDG 5). The increase in access to finance has led to an estimated 4,503 jobs being created. The increase in grant and loan applications has also aided in expanding the formal business sector, as more businesses sought to meet the qualifying criteria for accessing financing by completing the necessary business registration and compliance processes.

**Table 6:** Jobs Created through SBB Financing

| Jobs by Sector 2019 to 2022 | | |
|---|---|---|
| **Sector** | **Sector Code** | **Jobs** |
| Fruits and Vegetables - Farming and Processing | 1 | 238 |
| Apiculture | 2 | 1 |
| Aquaculture | 3 | 68 |
| Arts & Crafts | 4 | 51 |
| Internet & Computer-Based Services | 5 | 37 |
| Sustainable Mining | 6 | 6 |
| Low Carbon Agriculture & Agro-Processing (excluding livestock) | 7 | 760 |
| Eco-Tourism | 8 | 33 |
| Energy-Efficient Transportation & Logistics | 9 | 0 |
| Professional & Business Services | 10 | 2914 |

17 Caribbean Development Bank 2019. State of the MSME Sector in CARICOM - Prospects for the Future. https://www.caribank.org/newsroom/news-and-events/speeches/state-msme-sector-caricom-prospects-future

18 Wenner, Mark D.; Bollers, Elton; Clarke, Dillon; Pasha, Sukrishnalall 2018. Small Business Survival in Guyana: Insights and Implications: https://publications.iadb.org/en/small-business-survival-guyana-insights-and-implications

| | | |
|---|---|---|
| Sustainable Forestry & Wood Processing | 11 | 62 |
| Business Process Outsourcing | 12 | 0 |
| Bioethanol | 13 | 0 |
| Low Carbon Energy Production and/or Distribution | 14 | 0 |
| Low Carbon Manufacturing Activities | 15 | 137 |
| Publishing & Printing | 16 | 40 |
| Entertainment, Music & Performing Arts | 17 | 20 |
| Livestock | 18 | 84 |
| Transportation Services, whether by car, van, bus, truck or boat (includes Vehicle Rental) | 19 | 52 |
| Source: SBB | **Total** | **4503** |

Additionally, the SBB has provided entrepreneurship training to thousands of small businesses annually, with a total of 4,863 businesses trained over the past four years in areas such as financial management, record keeping, and the use of digital tools such as Whatsapp for Business to accommodate the changing needs of the business environment. To further enhance accessibility to financing options, the SBB Loan Guarantee Programme has been extended from 2027 for an additional 15 years until 2042. The extension enables small and medium-sized enterprises (SMEs) to access loans with extended repayment periods, leading to reduced monthly repayment fees. Furthermore, it serves as an incentive for commercial banks to actively participate in the Small Business Guarantee Programme, aligning with SDG Target 9.3, which aims to increase access to financial services for SMEs.

In 2021, Guyana launched the Women's Innovation and Investment Network, which seeks to empower women and girls and help them become financially independent by starting and expanding their businesses. To date, approximately 7,000 women have benefited from vocational and technical training (SDG 5). Additionally, a female-centric business incubator was launched to support and advertise women-owned businesses in Guyana. Further, both women and youth continue to be targeted through the Sustainable Livelihood Entrepreneurial Development programme which provides funding to individual persons or organisations to support entrepreneurial activities, particularly in the areas of agriculture and livestock, inclusive of value-added production.

## Technology for Businesses Development

The adoption of technology is essential for the sustainability of MSMEs. Concerted efforts to promote the adoption of digital technologies to enhance the productivity and competitiveness of MSMEs has included the introduction of the National Payment Systems Act 2018. This Act provides for a robust, safe, efficient, and inclusive financial infrastructure, which meets the current and future needs of the economy. It is intended to support financial activity and financial sector development, advance the use of electronic payments, and contribute to financial risk mitigation to achieve compatibility with international systems, while adhering to the relevant international standards, guidelines, and codes (SDG Target 9.b).

Further, in November 2020, Guyana completed a national e-commerce study, titled the Guyana National Research Study on Electronic Commerce. The main findings emanating from this study pointed to a lack of government initiative, and dialogue on the issues as well as a lack of knowledge of the regulatory framework. Recommendations from this study included the need for significant investment in infrastructure

that underpins the digital economy, including telecommunications, payment systems and e-governance (SDG Target 9.b).

Additionally, a draft E-Commerce Strategy was completed in 2022 which seeks to boost domestic trade, promote exports, provide a more efficient channel for consumers and producers to interlink, and create employment opportunities and innovation. Additionally, in 2022, Guyana commenced the roll-out of the "Digital in Motion" programme, which seeks to help business to digitise and adopt technologies in their business processes. To date, over 150 businesses have been trained through this programme, which has focused on the adoption of mobile money services such as Mobile Money Guyana and point-of-sale transactions offered by several commercial banks (SDG Target 9.b).

### Box 6: Digital in Motion Programme

The Digital in Motion Programme is a collaboration between Guyana's Ministry of Tourism, Industry and Commerce and United Nations Development Programme (UNDP) Guyana specifically designed to assist small businesses to transition to a new normal by supporting Micro, Small and Medium Enterprises (MSMEs) response and recovery from the pandemic through the adaptation and use of technology to help grow their businesses. It a component of the Business Adaptation programme by the UNDP, which aims to support governments, national institutions and the private sector including MSMEs with adapting and responding to the changing needs of a new tourism demand. A business toolkit was developed with an 8 step by step guide, featuring practical tips and simple tools to help businesses re-tool and discover new ways to reach customers and are aligned to Guyana's context. https://mintic.gov.gy/digital-in-motion/

## Challenges, Emerging Issues and Addressing the Way Forward

### COVID-19 Pandemic

A survey conducted in 2020 by the Ministry of Business to assess the impact of COVID-19 on business operations revealed that some businesses experienced decreased revenue, inability to meet financial obligations, loss of employees due to the incapacity to retain staff, closure of businesses, supply chain disruptions, and limited access to markets both locally and overseas. In response to these challenges, Guyana launched a COVID-19 Relief Grant programme in 2020, aimed at supporting the reopening, strengthening, and diversification of small businesses as they adapt and recover from the pandemic's impacts. The programme targeted the most impacted and vulnerable groups by requiring applicants to complete an online small business survey to determine the intensity of the impact of COVID-19 on their business operations. A total of 201 businesses benefited from this programme in the form of grants valued at G$40,000,000, with 112 women being among the beneficiaries. The programme received more financing applications from MSMEs than anticipated, and measures were put in place to deal with the increase, including increasing staff, working from home, working outside normal working hours and days, and greater collaboration among stakeholders.

### Transportation and Energy Sector

Guyana's heavy reliance on imported fossil fuels for electricity generation has resulted in high electricity costs, which in turn makes it difficult for businesses to achieve and maintain competitiveness and profitability. To reduce energy costs, Guyana decreased the excise tax on fuel from 50 percent to 35 percent in February 2021; then from 35 percent to 20 percent in October 2021. It was further reduced from 20 percent to 10 percent in 20 in January 2022 and then from 10 percent to 0 percent in March 2022, in response to the global increase in fuel prices that were further exacerbated by the Russian invasion of Ukraine.

High cost of fuel has also led to a focus on reducing energy costs through the development

of hydropower, the promotion of solar energy, and the recently launched Gas-to-Energy project. These efforts aim to reduce the country's reliance on imported fossil fuels, lower energy costs, and reduce greenhouse gas emissions.

In the transportation sector, Guyana has made considerable effort to reduce transportation costs for industries and consumers. Investments have been made in transportation infrastructure such as roads, bridges, and ports to improve connectivity and reduce transportation costs. For instance, the four-lane expansion project of the East Bank Demerara has improved traffic flow and reduced travel time between Georgetown and the East Bank Demerara. The ongoing expansion of the Cheddi Jagan International Airport , and significant private investments in port infrastructure improvements are expected to remove some of the inefficiencies in port operations.

## Reducing CO2 Emissions

The business sector is actively encouraged to minimise the use of fossil fuels in their production processes. This is achieved through various measures, including the promotion of energy efficiency in industries. To support these efforts, the government and relevant agencies implement awareness campaigns, offer financial incentives, and establish regulations that encourage the adoption of energy-efficient technologies and practices. One particular opportunity for businesses with solar installation systems is the ability to tie in with the national grid launched in 2022. This means that any excess energy generated by these businesses can be exported to the national grid, benefiting both the businesses and the overall energy supply. To further incentivise businesses, if the energy delivered to the National Grid by a business exceeds the energy received from the Grid, the business can receive appropriate credits. These credits can then be utilised to offset or reduce the net energy charges on their electricity bill. In essence, businesses can use the excess energy they generate to offset their energy consumption, resulting in cost savings. It is important to note that any unused credits at the end of a twelve-month period are not lost. Instead, businesses are entitled to receive payment for the remaining credits. The payment is calculated at a rate of 90 percent of the prevailing tariff at that time, providing an additional financial benefit for businesses engaged in solar energy generation.

(SDG Target 9.4)

## Market Access

Goods produced in Guyana have continued to encounter challenges in accessing markets regionally, and internationally. These challenges are related to trade barriers, logistics, sanitary and phytosanitary measures, packaging and labelling, and technology adaptation, which limit their ability to enter new markets.

Packaging and labelling cost are significant for local manufacturers and can account for up to 20 percent of the production costs. To alleviate cost of packaging the GMSA has encouraged group purchases of such items as bottles and boxes, especially amongst its SME members for agro-processing.

The COVID-19 pandemic exacerbated conditions, as travel and trade restrictions have caused supply chain disruptions and hindered access to markets. In 1997, Guyana established the National Advisory Committee on External Negotiations (NACEN) to address barriers to trade and these issues have had its attention. Its most recent meeting was August 2022. NACEN is responsible for addressing trade-related issues at the national level and coordinating national positions on trade and economic negotiations at the regional, hemispheric, and global levels.

## Access to Alternative Finance and Other Inputs

Limited capital market alternatives and institutions in Guyana compared to other major Caribbean economies restrict Guyanese business to traditional debt finance. Guyana lacks a bond market and a vibrant Stock Exchange.

Notwithstanding, one new merchant banking licence was issued and has commenced operations. Additionally, Government has been encouraging the private sector arms of multilateral financial institutions and regional development banks to ramp up their financing to the domestic private sector. Several transactions have been completed over the past three (3) years. Government has also been encouraging these institutions to intermediate through domestic financial institutions and three domestic commercial banks have secured trade

facilitation lines of credit from these international lenders. The banks in turn on-lend to the domestic private sector.

There is room for improvement in the adequacy and reliability of supply of critical inputs into manufacturing , particularly into subsector such as agro-processing. Factors explaining this include reduced agriculture output due to adverse weather as well as competing demand for fresh fruits (inputs) due to offshore operations of the oil and gas sector. More importantly, the lack of formal business practices among some farmers makes it increasingly difficult for manufacturers, who must meet international standards for their inputs.

To address some of these issues there have been initiatives to establish a national entrepreneurship and innovation body that will serve as a platform for transformation and innovation for MSMEs in Guyana.

Further, a draft Electronic Communication and Transaction Bill was completed in 2021. The enactment of this legislation will provide for the facilitation and regulation of secure electronic communications and transactions. Further, it will ensure legal recognition of transactions and the development of necessary legal and business infrastructure to implement secure electronic commerce; and enhance efficient delivery of governance through reliable electronic records and filing of documents (SDG Target 9.b).

## Lessons Learned

### Formalising Business Sectors

Small businesses in Guyana have faced difficulties in accessing loans and grants due to the prerequisites of Guyana Revenue Authority (GRA) and National Insurance Scheme (NIS) compliances. To address these challenges, the SBB has been working closely with GRA, NIS and commercial banks to increase the success rate of loan applicants. While this has been challenging, the mandatory requirement of GRA and NIS compliances and business registration for accessing financing has led to many small businesses becoming formalised. A key takeaway from this experience is that businesses require incentives to formalise. Many small businesses in Guyana operate in the informal sector due to the perceived benefits, such as reduced regulatory burden, lower tax liabilities, and greater flexibility. However, informal businesses often face difficulties in accessing finance, markets, and other resources that can hinder their growth and sustainability. Thus, work is ongoing to support small businesses in the formalisation process so that they can benefit from accessing government contracts, protecting property rights, and improving credibility with customers and suppliers.

### A Need to Embrace Digitisation

The COVID-19 pandemic has emphasised the need for individuals, businesses, and governments to embrace technology. Digitisation provides numerous benefits such as enhanced efficiency, productivity, and competitiveness, improved customer engagement, and wider market access. Notwithstanding the limitations in digital infrastructure and internet services, there is increasing recognition of the significance of digitisation in Guyana's business environment. Guyana acknowledges the gaps in its digital infrastructure and capacity requirements. To promote the country's digital economy, Guyana is improving its regulatory and physical infrastructure. Furthermore, Guyana is committed to providing training and capacity development to equip individuals and businesses with the necessary skills to participate in the digital economy. This proactive approach will enable Guyana to leverage technology's potential for business growth and economic development, ultimately contributing to the country's overall progress.. Additionally, steps taken to liberalise the telecommunications sector are discussed subsequently in the report.

### Improved Collaboration

An essential lesson that we have learned is the need for collaboration among various entities such as Government Ministries and Agencies, the private sector, civil society, and academia to advance the development agenda. Collaboration among these groups, each with their unique strengths, resources, and perspectives, is essential to minimise the duplication of effort, optimise the use of limited resources, and increase the effectiveness of collective development efforts. Considering the limited resources available and the complementary capabilities of each entity,

collaboration becomes even more critical. Such collaboration among these entities can also help facilitate the sharing of best practices, promote innovation, and foster greater accountability and transparency, all of which are necessary to achieve the SDGs.

## Financing Key Initiatives

For 2023, over 1,100 business are slated to benefit from an allocation of $525 million for the disbursement of loans and grants to support small business development, while $1.5 billion is the projected support to be offered to small businesses in the next two (2) years. This is part of the national commitment to fostering industrial development, supporting small businesses, and facilitating economic growth in Guyana.

## Data Systems Strengthening

Efforts to enhance data systems have included the provision of training in monitoring and evaluation (M&E) systems to staff members across businesses, departments, and agencies at different levels. Follow-up through ongoing engagement with the trainees enabled the capturing of training outcomes by monitoring the progress of businesses that had accessed grants. This mechanism was necessary after the disbursement of grants to support beneficiaries to leverage their funds effectively. Further, the reporting process has been simplified through the utilisation of software applications to efficiently store and report on data. The implementation of a digitised system has significantly minimized information duplication and created faster and more efficient ways of accessing data. These initiatives collectively strengthened the data systems, enabling efficient M&E of programmes.

## Research and Development (R&D) in Agriculture Context and Key Achievements

Guyana's leadership on the CARICOM "25 by 2025 Initiative" aimed at reducing extra-regional agri-food import bill by 25 percent by 2025 is evidence that food security and agriculture are not only considered to be a mainstay of our economy but also for the wider CARICOM region. A key focus area is the integration of new technologies for farm operations by adopting policies related to digital and ICT agriculture-related technologies to increase resiliency in agricultural production, strengthen value chain, improve soil health, and reduce dependency on fossil-based agricultural inputs. Research and Development is viewed as crucial to fostering increased productivity and by extension achieving the goal of 25 by 2025 (SDG Target 9.5).

Guyana is investing in the R&D of climate resilient varieties of seeds and planting material. The National Agricultural Research and Extension Institute (NAREI), the Guyana Rice Development Board (GRDB), the Guyana Livestock Development Authority, the Guyana Sugar Corporation (GUYSUCO) and the Satyadeow Sawh Aquaculture Station are some of the institutions that have mandates for research and development in the agriculture sector in Guyana. Of note, the number of researchers across these institutions has increased from 79 in 2018 to 108 in 2022, while investments in R&D have increased from $612.3 million to $1.2 billion for the same period. Major outputs of these investments have included the introduction of new, improved and high yielding rice varieties, commissioning of National Gene Bank and Soil Tissue Laboratory, better management of rice germplasm through improved storage and safeguards of rice varieties and genotypes, introduction of new practices such as shade houses, greenhouses, hydroponics and the adoption of new crop varieties for local production inclusive of coconut, coffee and cocoa and development of potting mix (bio-stimulant) for crop production in marginal soils, formulation of locally produced fish feed and generic improvements in breeding stock for small ruminants, swine and cattle (SDG Target 9.5).

More specifically within the rice sector – a major export of Guyana, R&D has sought to improve yields, identify, and implement alternatives to insecticides, control paddy bugs and introduce new bio-fortified rice varieties. There has also been increased investments in research for the commercialisation of import commodities such as broccoli, cauliflower, onions, corn, soya, wheat, black pepper, onions, coffee, roses, and nutmeg. Guyana's Institute for Applied Science

and Technology also has a pivotal role in advancing R&D through the implementation of technologies to aid farmers to improve production and the quality of their products, especially in the processing of agricultural products which use solar drying technology. The Institute has a prominent presence in Guyana's hinterland, particularly Regions 8 and 9, and has developed technologies to create value added to products such as rice cereal, tomato ketchup and purple potato drink (SDG Target 9.5).

Advancing R&D is a multisectoral responsibility and within the education sector this is occurring at different levels. At the level of technical and vocational education training there is greater focus on the development and expansion of new vocational programmes which integrate technology into traditional skill areas. Further, at the primary and secondary levels, the new curriculum focuses on experiential learning in the areas of science and technology – robotics has been included at both levels, while there has been expansion of single science across secondary schools.

## Challenges, Emerging Issues and Addressing the Way Forward

Climate change and unprecedented weather conditions – that is increased rainfall has led to flooding thereby continuing to extend the timeline to breed a sugarcane variety using the traditional breeding method. This has led to loss of production and disruption of field trials. Further, increased incidences of pests such as rodents and termites have also affected sugar-cane breeding and production. In response, Guyana has developed and implemented, adaptation and mitigation strategies for climate change such as shade houses and hydroponics.

Further, Guyana has also developed high-yielding, pest-resistant and climate-resilient crop varieties while conducting ongoing seedling emergence studies to determine flood tolerant varieties. In addition, farmers have been trained on climate smart practices, while proactive and integrated Pest and Weed Management Systems have been implemented. Guyana has also sought to promote the integration of modern technology such as drones into research, development, and farm management while at the same time creating technological packages to promote technology transfer and adoption for distribution to farmers. Rice farmers in Region 5 have begun utilising drones in their cultivation and GUYSUCO is utilising drones in fertiliser distribution while the GRDB, Agriculture Sector Development Unit, Fisheries Department and NAREI's Mangrove Department are also utilising drones. More importantly, Guyana has sought to encourage and facilitate youth involvement in agriculture to sustain our farmer population through the implementation of a youth economic empowerment programmes. Through this initiative, , young people are involved in various activities such as rice breeding, agronomy, pest and disease management, feed production and the use of climate-adaptive agricultural techniques such as hydroponics and shade house cultivation.

## Lessons Learned

Integrating science and technology is essential to leapfrogging development gaps, catching up with the time loss as a result of COVID -19 and advancing a low carbon development trajectory.

## Information and Communications Technology (ICT) Context and Key Achievements

Guyana's telecommunications sector was restricted by a 30-year monopoly, which hindered the progress of businesses' modernisation for a significant time. However, with the commencement orders issued in October 2020, the Telecommunications Act (2016) and the Public Utilities Commission Act (2016) were fully brought into force. The Telecommunication Act provides for an "open, liberalised and competitive sector" and "specifically addresses the expansion of telecommunications networks and services to unserved and underserved areas via the

implementation of a universal service access/ universal services programme."[19] Through this legislative advancement, Guyana has attracted a new entrant, and has moved from a de facto monopoly in fixed telephony and a de facto duopoly in mobile telephony to a liberalised sector of at least three (3) providers in the mobile network (SDG Target 9.c).

Based on reports of the major services providers, Guyana has an area coverage of 90 percent and 98 percent nationwide (2020). Further, Guyana's telephone density rate as of December 31, 2022, was 15.3 per 100 inhabitants for fixed line and 92.7 per 100 inhabitants for mobile. Fixed broadband is provided through digital subscriber line and fibre; while 2G, 3G and 4G LTE mobile technologies are being used and 5G is being introduced (SDG Target 9.c). [20]

Guyana is also implementing several initiatives aimed at improving national ICT access including access to the internet. One such initiative is the US$17 million ICT Access and eServices for Hinterland, Poor and Remote Communities Project which aims to *"provide the necessary infrastructure, equipment, hardware, and software necessary to enable access to high quality ICT, training and e-services in all parts of Guyana, with particular attention given to vulnerable groups and remote communities who might otherwise be excluded. It is visualised that the project will provide the supporting capacity to create linkages to generate inter-sectoral benefits in areas such as education, health and business. The goals of the project include the development of a digital knowledge-based society, enhancement of national efficiency and competitiveness and the promotion of inclusive and sustainable growth and development."* [21] In addition, Guyana has rolled out WiFiGY, a programme to establish free public hotspots throughout Guyana and to date, over 600 WiFiGY hotspots have been established, with over 250,000 residents benefitting from same. Public internet access is also provided at schools and other educational facilities, health facilities, police stations, hospitals and other government agencies (SDG Target 9.c).

In the hinterland, internet access and Internet Protocol phones have been provided to remote communities at no charge. To date, 75 hinterland communities with a total population of approximately 32,000 have benefitted from the ability to make free phone calls to any landline or cellular number. Additionally, internet service at speeds of 5 Mbps, 10 Mbps and 30 Mbps depending on the geographical location, has been provided to 161 hinterland and remote communities with a total population of over 60,000 residents (SDG Target 9.c).

Guyana recognises that there is a deficit of highly skilled personnel in its technology fields which can affect industries willingness to adopt technology as well as their overall diversification. In keeping with the need to foster technology innovations and creativity, Guyana has sought to promote the development of technology-driven products, more precisely software solutions and applications. As such, Guyana's Telecommunication and Innovations Programme has organised incubator initiatives such as Hackathons and Innovation Challenge which provide a platform for software developers to conceptualize and create novel software solutions that are directed at solving social and economic problems, while at the same time fostering an environment that can promote technology development, innovation, and research. Box 7 provides more details on this initiative.

19 Source: Public Utilities Commission

20 https://www.wto.org/english/tratop_e/tpr_e/s422_e.pdf

21 Source: https://guyanareddfund.org/index.php/grif-projects/ict-access-and-e-services

Box 7: Innovation Challenge / Hackathons

**Innovation Challenge or Hackathons**

In 2022, Guyana launched Innovation Challenge which replaced Hackathons and provides a platform for software developers to showcase their skills through the development of software applications suitable for Guyana's development needs. In 2020, the event focused on "School Records Management System" and six (6) software applications were developed to manage school records, while in 2022 the focus was the "Environment" and five (5) software applications were developed covering various aspects of the environment. The applications were in the areas of Virtual Tourism (Augmented Reality), Environmental Conservation, Tracking Deforestation using Artificial Intelligence (AI), Drainage and Irrigation Management System and Natural Resource Asset Management System.

*Innovation Challenge / Hackathon, 2022*

Further, capacity building initiatives including basic information technology (IT) training, innovation camps focused on introducing children to the different thematic areas of IT, basic coding and advanced training in ICT areas such as web development and programming have been implemented in communities across Guyana. Over the past two (2) years, approximately 2,700 persons have been trained. These initiatives have also targeted girls, young women, and persons with disabilities (PWDs) in anticipation that they will take roles in high-tech industries. See Box 8 on Guyanese Girls Code Programme for further details.

Looking ahead, Guyana intends to further investments in ICT development as part of national commitment to bridging the digital divide that exists within Guyana, and between Guyana and the rest of the World.

**Figures 29:** Community Level ICT training.

**Box 8:** Guyanese Girls Code

Generally, girls and females are under-represented in science, technology, engineering and mathematics, which has also been observed in Guyana. Therefore, in order to bridge this gap and strategically address inequalities that exist for girls and women in the area of ICT, the Guyanese Girls Code Programme was launched in 2021. The aim of this initiative is empowering young girls between the ages of **10 and 16** by increasing their competency in IT. This will all for their productive usage of information technology platforms, equipment and programming toolkits and languages and encourage their exploration of ICTs and awareness building of the application of technology in various domains. Since 2021, some **268** girls from Regions 2, 3, 4, 5, 6 and 10 have been trained in coding/programming under the Programme. In 2021, the coding event was held under the theme "Connected Girls Creating Brighter Futures" and 70 girls were trained in block-based programming, flow charts, problem solving and design thinking, using micro bits and robotics. The girls produced scratch coding, games and animated scenarios. In 2022, 198 girls participated in the coding event which focused on "Access and Safety for Girls".

**Figure 30:** Girls in ICT Awardees, 2022

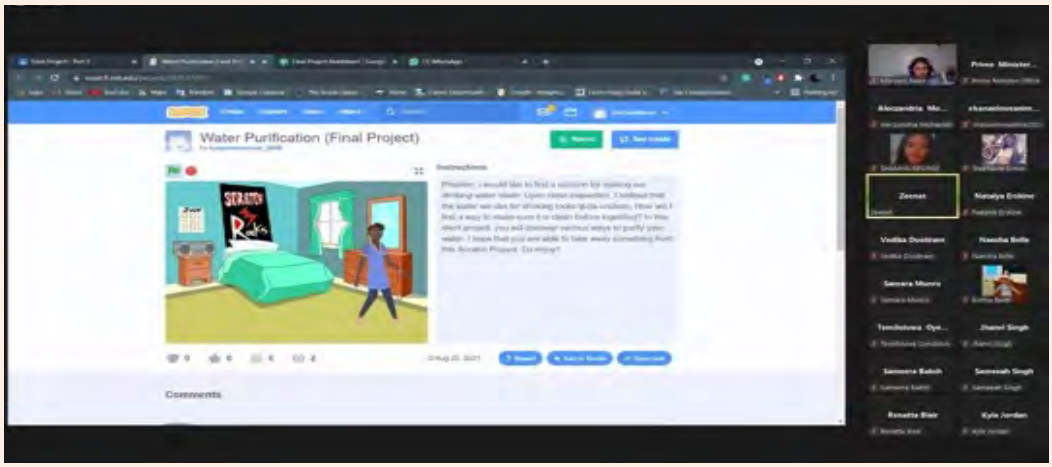



**Figure 31:** Example of Guyanese Girls Code Programme Mini Project

## Challenges, Emerging Issues and Addressing the Way Forward

As expansion of ICT continues in Guyana, there are still challenges that must be addressed. Guyana requires a culture shift, to ensure greater incorporation of ICT across all spheres of society thereby promoting the functional utilisation of ICT. However, this is hinged on human capacity skills in ICT in Guyana, which are still relatively low. This has affected the overall technology adoption rate, which is also low, particularly in SMEs. Notwithstanding, there has been interest by young people who are incorporating ICT into their entrepreneurial ventures and providing a much-needed push for ICT in Guyana, however, to advance ICT, financing, skills development, and greater exposure to more cutting-edge technology is urgently needed.

Guyana's ICT sector is evolving and the need for more innovators and creators is a prerequisite for our continuous development. Therefore, Guyana is looking to create a pool of innovators and developers that will drive technology innovation and creativity. Young Guyanese will form the core of this pool and will become the ICT creative minds that Guyana so urgently needs. To this end, capacity building initiatives including basic information technology (IT) training, innovation camps focused the different thematic areas of IT, basic coding and advanced training in ICT areas such as web development and programming will continue to be implemented, and target Guyanese of different age groups.

## Lessons Learned

The COVID-19 pandemic increased the demand for ICT exponentially and presented an opportunity for several Guyanese businesses to introduce online platforms to reach customers during the lock-down periods. This increase in demand for ICT also increased the demand for ICT training and has reinforced the necessity of ICT for accelerating Guyana's development and resilience.

## Financing Key Initiatives

In order to transform Guyana's ICT landscape, Guyana is seeking to construct a Technology Incubation Centre at a cost of $200 million. The Centre will provide a space for aspiring technology entrepreneurs, creators and innovators to start and effectively scale their technology ventures. It will feature a number of incubation services and

programmes specifically designed to transform creative technology ideas into income generating ventures and advance the growth of early-stage technology companies. It is envisaged that through this investment, Guyana will increase the number of ICT products and services, as well as the number tech entrepreneurs and businesses, and thereby the overall growth of the technology sector in Guyana.




# GOAL 11:

Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable

## Sustainable Housing Settlements Context and Key Achievements

Guyana has recorded substantial accomplishments towards urban development, through the expansion of the country's housing programmes in recent years. Guyana is focused on increasing access to safe housing solutions while at the same time making sure that housing is more affordable for the population.

The sector's plans are aligned with the SDGs and the United Nations New Urban Agenda and encompasses both the Government's and citizen's collaboration to foster development. The country's national urbanisation plans are implemented under the LCDS 2030, in building sustainable cities and towns, as the country is embarking upon transformation in the housing and infrastructure sectors. Under the LCDS 2030, planning for developing sustainable communities is formed through consultations with inter-governmental agencies, civil society, private sector and other key stakeholders for greater inclusivity, especially for the vulnerable population (SDG Target 11.3).

### Plans and Policies and Legislative and Institutional Frameworks

The Town and Country Planning Act 1946, Housing Act 1946 and Housing Development Act of Guyana 1970 are the overarching legal frameworks for the housing sector of Guyana. Further, revisions are being made to the 2022 Draft National Housing Strategy, based on a housing profile that was completed with the support of UN-Habitat. This strategy when implemented, will address land use and urbanisation master plans that embrace growth, infrastructure, and sustainability; strengthening of land administration systems; affordable and resilient housing solutions; regularisation of existing informal or squatter settlements; fiscally sustainable government interventions into the housing market, among other interventions (SDG Target 11.3).

Additionally, the draft of the Guyana Strategy for Informal Settlements Upgrading and Prevention (GISSUP) is being developed. This strategy seeks to addresses the regularisation of informal settlements specifically with strategic priorities and actionable policy proposals that aim to reduce informal settlements, facilitate settlement regularisation, and relocation from zero tolerance areas. The recent passage of the Condominium Act of 2022 now provides a structured and clear policy framework to guide the ownership and management of town houses and condominiums, a vital step in implementing effective urban management systems. Further, Guyana has also presented to its Parliament legislation for the Planning and Development Single Window System Bill of 2022, which establishes a single window electronic processing system linked across the key agencies for development permits. The single window system is expected to considerably reduce the timeframe for approval of these permits (SDG Target 11.3).

The Central Housing and Planning Authority (CH&PA) is the country's only agency which provides affordable, modern, sustainable housing and commercial developments in a coordinated framework. The Agency also functions as regulatory body for upgrading of informal settlements, as well as granting security of tenure. In addition, the CH&PA provides the necessary infrastructural networks and other services for housing areas such as access roads, water distribution networks, electricity and streetlights (SDG Target 11.1). Further, the CH&PA also collaborates with Regional and local authorities, other agencies such as GWI, GLSC,

GUYSUCO, National Industrial and Commercial Investments Limited (NICIL), EPA, and the Guyana Land Registry, among others, for planning and development of sustainable communities, both urban, peri-urban and rural. (SDG 11.3)

## Access to Adequate, Safe Housing and Green Spaces

The implementation of several key interventions has contributed to significant progress being realised towards achieving sustainable housing settlements. These have included subsidy programmes aimed at promoting affordable housing construction, facilitating affordable home financing solutions such as Mortgage Interest Relief (MIR) on loans up to $30 million, informal settlers' regularisation initiatives and removal of taxes from several construction materials.

Guyana aims to allocate 10,000 house lots annually, and 50,000 house lots by 2025, in order to address the backlog of housing applications and meet growing urbanisation demand as Guyana has experienced urban population growth within recent years due to economic activities being centred in urban and peri urban areas, migration and the emerging oil and gas sector. As such, Guyana has accelerated its housing programme by allocating over 24,000 house lots, during the period 2019-2022, primarily to low- and middle-income households. Between 2020 and 2022, approximately 20,240 or 83 percent of house lots were allocated to low- and middle-income earners. Notably, there was also increased focus on allocating to female headed households, and at a subsidised cost. Allocations to female headed household in 2022 stood at 45 percent, up from 42 percent in 2021. Further, in 2021, allocations to men only stood at 35 percent and fell to 27 percent in 2022, while allocations to joint applications increased from 23 percent in 2021 to 28 percent in 2022 (SDG Target 11.1).

**Figure 32:** Low income 2-bedroom homes in Ordinance Fortlands, Berbice Region 6, 2022

**Figure 33 and 34:** One Storey (38 × 35 sq ft) Young Professional Homes, Prospect Region 4 ,2022 and Two Storey (45 × 43 sq ft) Young Professional Home, Providence, Region 4 (2022,) CH&PA Photos

Additionally, Guyana is implementing the Squatter Regularisation and Relocation Programme, which resulted in 825 settlers being allocated lots and 6 (six) informal communities being regularised, over the past four (4) years. There has been continued work towards expanding community engagement activities and as such 176 local democratic organs were engaged in project activities and planning, 146 community leaders were trained and 22 community projects such as training workshops, clean up exercises, hamper distribution were implemented, in an inclusive and participatory manner. These interventions have helped Guyana to target segments of the population that would be considered furthest left behind (SDG Target 11.1 and 11.3).

**Figure 35:** Engaging Parika Seadam residents (informal settlers) on relocation plans

Guyana has recorded a 62 percent occupancy rate in established communities in 2022, up from 55 percent in 2020. This is mainly attributed to increased focus on the completion of infrastructural programmes after the establishment of new housing schemes, which created access to lots, enabling construction. The infrastructural programmes included the installation of LED streetlights, electrical infrastructure, and water transmission networks towards equipping communities with the basic services for occupancy. For 2019 through 2022, 2,200 streetlights were installed in 30 communities across Regions 2, 3, 4, 5 and 6. Additionally, in excess of 30,000 households benefited from the installation of electrical infrastructure across 31 communities in Regions 2, 3, 4, 5 and 6 (SDG Target 11.1).

Importantly, green, and public spaces and recreational facilities were planned and established for all residents in the new urban housing schemes that have been developed. At the community level, for every 1,000 persons, there is a public/green space of at least 0.5 acre in size, planned. For the period 2020 to 2022, 11 additional recreational facilities and playgrounds were instituted in urban towns, including Lethem and Mabaruma (SDG Target 11.7).

**Figure 36:** Playground being developed in new Housing scheme for green space, CH&PA Photo

## Affordable Housing Initiatives

In order to reduce the cost of home ownership, Guyana has since 2020 progressively removed the VAT on basic building and construction materials. Additionally, the ceiling on loans eligible for Mortgage Interest Relief was doubled from $15 million to $30 million, making interest paid on housing loans up to $30 million tax deductible for first-time homeowners. Further, the ceiling on low-income housing loans granted by commercial banks was progressively increased from $8 million in 2020 to $20 million in 2023. Under this initiative, the interest income earned by commercial banks on low-income housing loans granted under this programme is free of corporate income tax, thereby enabling banks to lend at a lower interest rate. Similarly, the ceiling on loans granted by the New Building Society was increased over the same period from $12 million to $20 million, also enabling borrowers to access lower cost financing for home ownership (SDG Target 11.1). See Table 7 below for more breakdown of mortgages and interest rates.[22]

22 https://newsroom.gy/2022/08/31/nbs-further-slashes-mortgage-rates-announces-countrywide-expansion/

**Table 7:** New Building Society New Mortgage Interest Rates[23]

| No. | Mortgage Range | New Interest Rate | Old Interest Rate |
|---|---|---|---|
| 1 | $1 million to $4 million | 3.50 percent | 4 percent |
| 2 | $4 million to $9 million | 3.75 percent | 5.95 percent |
| 3 | $9 million to $20 million | 5.70 percent | 5.95 percent |

For the period 2019 to 2022, over 760 homes were constructed under the home construction programme and 1,162 units are in progress, in both the hinterland and coastland regions of Guyana, as seen in the table below. Further, housing incentives such as subsidies for repairs to homes as well as full home subsidies were disbursed between 2021 and 2022. A total of 379 home improvement subsidies were disbursed during this period (SDG Target 11.1).

**Table 8:** Construction of Housing Units 2019 – 2022, CH&PA

| Housing Units Constructed from 2019 to 2022 | Completed | In Progress |
|---|---|---|
| Number of housing units constructed in rural and urban communities | 763 | 1,162 |

Guyana also established a Home Construction Assistance Facility (HCAF) in 2022, further enabling affordable homeownership by providing a number of housing solutions to meet the needs of households from varying income brackets by providing easier access to home financing. This programme aims to promote home ownership and home construction, and to increase occupancy of house lots allocated by the Government of Guyana or privately acquired. Further, it is expected to reduce dependency on rental and result in an increase of activities in the construction sector. Applications for the Facility are available online, making it easier for the population to access and apply (SDG Target 11.1).

The following projects fall under the purview of the HCAF:

- **Home Construction Assistance Programme (HCAP)** – which allows for the collaboration of the CH&PA with the banks to facilitate access to lending institutions for the construction of three main housing designs across all regions. A total number of 450 persons applied for this programme.
- **Bartica Housing Project (BHP)** – that will see the construction and allocation of 500 moderate income – 3- bedroom housing units in Region 7.

**Figure 37:** Clearing of 120 acres of land for Bartica Housing Project

- **Lethem Housing Subsidy (LHS)** –as a direct intervention with the Guyana Bank for Trade and Industry and NBS, 600 low-income homeowners will receive a grant of $1 million from the Ministry of Housing and Water, while the homeowner will finance the remaining $2 million to $3 million, as required to build their house, at an interest rate of 3.5 percent, without the need for collateral or a job

23 https://www.stabroeknews.com/2022/08/31/news/guyana/nbs-slashes-mortgage-interest-rates/

letter. This is the lowest rate in the country and homeowners would only have to repay $14,000 each month but under the condition of the material and labour being procured locally. A such, the 600 low- income homes are being constructed utilising local timber and clay bricks. A total of 423 or 70.5 percent of the targeted number of persons have registered as of December 2022. (SDG Target 11.1 and 11.c)

**Figure 38:** Lethem Housing Support – More than 130 acres of land for Lethem Housing development and houses under construction

- **Housing Subsidy Programme (HSP)** – steel and cement subsidies are bring provided to potential homeowners and private home developers across Guyana in two categories. Estimated construction cost of less than or equal to $6 million will be given one (1) sling of cement and steel for the foundation and estimated construction cost of more than $6 million but less than or equal to $25 million will be given two (2) slings of cement. The total persons registered for this programme as of December 2022 is 667 (SDG Target 11.1).

**Figure 39:** Distribution of Housing Subsidies

## Safe and Accessible Transport Systems

Guyana has implemented several interventions towards the expansion of its transport system, particularly the construction of major highways and community roads, in order to increase access to transport, reduce travel and congestion time and provide economic and social benefits for all citizens. Investment in the expansion of major road networks commenced with the construction of the Mandela Avenue to Eccles Four Lane Highway which was commissioned in April 2022 while the construction of the Eccles to Great Diamond Four Lane Highway is scheduled for completion by the end of 2023. Additionally, two (2) other major four lane highways from Schoonord to Crane and Meer Zoorgen to Crane are being constructed on the West Coast of Demerara and are scheduled for completion by 2024. The completion of these new highways on the coastal Regions 3 and 4 will create additional commercial hubs and link new communities. In total, 19.55 km of highways will be achieved with the completion of these four highways (SDG Target 11.2).

**Figure 40:** Overview of the Mandela to Eccles Highway and roundabout

**Figure 41:** Overview of the Eccles to Diamond roundabout and highway

In addition to the investments in infrastructure previously mentioned in Goal 9, Guyana has also continued to improve transport systems at the community level through the construction and upgrade of community roads across various regions. Community roads were upgraded in approximately 20 communities across Regions 2, 3, 4, 5 and 6. Over 20,000 households benefitted from the establishment of new housing areas during the period 2019 through 2022, in over 40 communities across Regions 2, 3, 4, 5, 6, 9 and 10 (SDG Target 11.2), reinforcing the importance of transport systems in housing settlements.

**Figure 42:** Overview of Eccles to Great Diamond, East Bank Demerara Interlink Road

## Challenges, Emerging Issues and Addressing the Way Forward

### Effects of COVID-19 and 2020 Elections on SDG 11

The COVID-19 pandemic had an adverse effect on Guyana's housing sector, as much of the work in this sector is field-related and requires face-to-face interaction. As a result of the infectious nature of the disease and the need for physical distancing, the workforce and developmental projects were most affected. Housing services offered by the Government were severely disrupted resulting in a substantial decline in the level of productivity as the pandemic affected the processing of customer transactions since many departments

were operating at a 50 percent capacity due to social distancing measures. Significant decreases in revenue collections and thus reduction in the housing fund reserves resulted.

Mitigation of these challenges included a number of measures to guarantee the safety of officers and members of the public who chose to transact business with the CH&PA, within its limited operational capacity. A Business Continuity Plan was drafted to guide daily operations within all departments of the CH&PA. Additionally, online platforms and work from home solutions were utilised for meetings and information sharing. Interviews of applicants were also done through an online platform; online query portals were expanded and payments for land were only accepted on specific days.

Further, routine activities such as, allocation of house lots in the new developments and acceptance of building applications ceased, field work (monitoring and supervision, surveys, inspections, investigations) were either suspended or reduced. This was preceded by the 2020 General and Regional Elections having a prolonged 5-month delay in delivering the electoral result. This led to the annual budget being laid in Parliament until September 2020, thereby reducing the funding and time available for the implementation of housing services and infrastructural projects.

Many projects were halted and resumed at a later date. This was mainly due to the reduced manpower on projects. Labour force decreased in areas where key projects were located, since these were identified as epicentres for COVID-19 by the Ministry of Health. Out of concern for workers' safety operations were downscaled in order to safeguard against overcrowding, which increased the risk of contracting COVID-19. Further, project execution time slowed down significantly, thereby causing delays and disruptions on a number of projects. For instance, with respect to CH&PA funded projects, 16.7 percent of total projects were not able to meet the contract completion date Similarly, as it relates to the Government of Guyana (GoG) funded projects, 26.7 percent of road upgrading projects, 100 percent of playground upgrading projects, 25 percent of LED streetlamp installation projects, 33.4 percent of recreational facilities upgrading projects, 63.6 percent of infrastructure works projects, and 100 percent of community facilities upgrading projects experienced delays with respect to their completion.

Another major challenge that was brought about by the pandemic which delayed the deliverables of projects was the shortage of construction materials and ensuing increase in prices. Prolonged shipping-related delays continue to affect the flow of commodities and the progress of major development work in Guyana. There were also steady increases in the prices for construction materials such as sand, asphaltic concrete, and greenheart piles. This was influenced by increased activity in the construction sector, global demand and supply, as well as increases in freight and distribution prices. Annual price analysis of construction materials noted that in 2022, prices increased 44 percent compared with a 29 percent increase in 2020.

## Climate Related Challenges including the 2021 floods

Climate related challenges in relation to the irregular weather patterns have impacted the new and existing infrastructure and housing projects. However, steps have been taken to carefully manage project activities, so as to maximise the use of the time when the weather is favourable. Contract timelines have been adjusted to cater for the time lost due to inclement weather.

High levels of precipitation have resulted in flooding, which is the major climate related challenge for Guyana. Particularly the 2021 floods, delayed the construction and upgrading of roads, culverts and bridges for new and existing housing areas. The floods further weakened infrastructure such as the asphaltic surface of roads and erosion of road shoulders, resulting in cracks, deformations and potholes. In response, Guyana is now focused on the development of climate resilient infrastructure as such road infrastructure which are designed with appropriate run off to avoid water accumulation on the roadways. All new roads, since 2018 are being designed and constructed with a two (2) percent slope on the surface of the road to facilitate the runoff of surface water. In addition, new roads are elevated between 0.75 to 0.9 metres on average, above land levels to prevent flooding of roads during the heavy rainfall. Further to this, the clay shoulders of roadways have a greater slope of four (4) percent to prevent water from accumulating at the edges

of the road and flowing directly into the roadside drains.

For housing construction, the increased rainfall levels have led to increased height standard of 1.2 metres above the ground compared to previous 0.9 metres. Rainwater harvesting initiatives are being applied through the use of gutters while downpipes are affixed on all the homes constructed through the country's housing programmes.

### Other challenges

Guyana has experienced urban population growth due to economic activities being centred in urban and peri urban areas, migration, and the emerging oil and gas sector. Growing demands for affordable and climate resilient settlements in both urban and hinterland areas continue to be a priority call on existing fiscal space.

Funding for i. land development for home construction, ii. construction of housing units, iii. infrastructural upgrades and iv. transport networks are critically needed to offset the demand for housing which has grown exponentially in the recent years, where there is a housing deficit of 20,000 homes for low-income families. [24] For example, the cost of financing the 7.35 km four-lane highway from Schoonord to Crane and Meer Zoorgen to Crane is $15 billion.

Financing is also a challenge in establishing renewable and cheaper sources of energy for these new communities. The varied topography of the hinterland regions of Guyana, which accounts for 145,353km2 or approximately two-thirds (67.6 percent) or[25] of the land area of the country, leads to relatively higher cost of the hinterland housing programme, due to the higher cost of transporting construction materials from the coast to the hinterland. As such, sourcing local materials is being promoted where possible. In one (1) hinterland Region homes are being built using local timber and clay materials from surrounding villages, which promotes sustainable communities (SDG Target 11.c).

Guyana has been experiencing an increase in informal settlements, especially around urban areas, which is linked to an increase in the migrant population and is working closely with these settlers to regularise and relocate them by providing new house lots and furthering their integration into communities.

## Lessons Learned

Incorporation of the National Housing Strategy and the Informal Settlement Strategy is critical in planning for national housing programmes, both in the urban and rural areas, to ensure that the future housing developments are aligned with the UN Urban Agenda. Moreover, greater collaboration among national agencies as well as synergies in their policies and strategies will ensure coherence in policy planning and implementation for future urban developments, while improving forecasting and estimations.

Consultation with communities, local area authorities and the private sector is pivotal for developing sustainable and resilient communities and has resulted in integrated communities being established.

24 https://www.imf.org/en/Publications/WP/Issues/2020/01/31/Guyana-Housing-Market-and-Implications-for-Macroprudential-Policies-48948

25 https://statisticsguyana.gov.gy/wp-content/uploads/2019/10/2012_Preliminary_Report.pdf

## Financing Key Initiatives

The establishment of Guyana's secondary city – Silica City will require substantial resources to complete the housing and infrastructural works, as well as for the establishment of social amenities such as schools, recreational centres, hospitals, and renewable sources of energy. See Box 9 below for further details.

**Box 9:** Overview of Silica City

### Silica City

Guyana has embarked on a transformative project – development of Guyana's first climate-smart city, Silica City. Silica City was conceptualised since 2013 and is envisaged to tackle the issue of non-coastal urban settlement development and the challenges of climate change and sea-level rise. The idea of Silica City is primarily born out of the need for Guyana to have an urban centre that is complementary to the existing capital city of Georgetown.

The vision for Silica City is the creation of "A vibrant, sustainable, resilient and modern city", which is in keeping with the Low Carbon Development Strategy, Guyana's international commitments (Paris Agreement and UNFCC) and SDG 11. The "smart city" approach is proposed for creating the new city that is compact, (agglomeration of land uses); pedestrian-oriented (walkable); energy-efficient, interconnected, and sustainable, comfortable, attractive, and secure. A key area of focus is the preservation and enhancement of the valuable, natural, and cultural resources of the area. (SDG Target 11.4)

For the development of this new city, land has already been identified, which is located within the vicinity of the Kuru Kururu area, along the Linden-Soesdyke highway, approximately 40 km from Georgetown and 45 km from Linden. It is envisaged that over the next 20 years, the projected population for this new city will be approximately 50,000 (12,500 households) in light of employment creation and accommodating new households within a non-coastal settlement.

The Government has commenced the first phase of the housing development, whereby approximately 109.865 acres (Tract B Kuru Kururu) were cleared, surveyed and the execution of development works have begun. This initial block of land within Silica City will be developed as a Young Professional Scheme. The design yields a total of 300 lots, that are appropriately apportioned to facilitate the placement of young professional houses, commercial lots, mixed-use development, apartments, and condos as well as provisions for reserve spaces for institutional and community use.

The key sustainable and smart city principles that were the basis for in conceptualising the layout, include a unique sense of place, a community to live, work and play, incorporation of the concept of mix-use development, enhancement of natural attributes, multi-functional open space and provision of employment centres, community facilities and services. (SDG Target 11.b)


**Figure 43:** Phase 1 – Layout of Silica City Housing Development

**Figure 43:** Site for Silica City, Kuru Kururu New Town – 109.865 acre

## Data Systems Strengthening

The CH&PA has incorporated greater data collection into its community engagements and expanded the number of data collection tools used to capture data about applicants and beneficiaries of house lots and homes. Further, since 2021, there has been continuous data collection capturing gender related data, which has proven essential in policy planning. This has been especially for new initiatives to incorporate gender mainstreaming into the housing programmes.

**Figure 45:** Women's safety audit workshop-community engagement

## Strengthen, Protect and Safeguard Cultural and Natural Heritage

## CULTURAL HERITAGE

## Context and Key Achievements

Guyana recognises that one of the more important pillars of a resilient society is a strong cultural awareness and defined cultural identity. Guyana consistently invests in the preservation of its valuable, tangible and intangible cultural heritage. Guyana's built heritage and related resources constitute an integral part of the country's national identity. The LCDS 2030 commits to focusing on preserving cultural assets, including heritage sites and buildings and fostering the inclusion of national heritage management agencies such as the National Trust of Guyana, national and other museums and related public and private cultural institutions.

### Legislative and Institutional Frameworks

In 1977, Guyana became a signatory to the 1972 United Nations Educational, Scientific and Cultural Organisation (UNESCO) Convention Concerning the Protection of the World Cultural and Natural Heritage. Other UNESCO conventions were signed subsequently for increased heritage protection by the State Party including the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions in 2009 and the 2001 Convention on the Protection of Underwater Cultural Heritage, in 2014. The National Trust of Guyana which falls under the Ministry of Culture, Youth and Sport (MCYS), is responsible for cultural preservation.

### Multi-Cultural Heritage

Historically, Guyana has celebrated a diverse range of multi-ethnic festivals and embraced a rich mix of cultures, customs, and traditions, born out of the country's diverse population. National festivals such as Mashramani – commemoration of Guyana's Republican Anniversary on the 23rd of February 1970, the annual Independence Flag Raising Ceremony – commemoration of Guyana's Independence gained on the 26th of May 1966, and more recently the Guyana Cricket Carnival which commenced in September 2022, are platforms for the celebration and promotion of our national culture (SDG Target 11.4).

**Figure 46:** Collage of Cultural Images

Phagwah, Easter, Eid al-Adha, Youma Nabi, Diwali, and Christmas are religious, cultural and national holidays enjoyed by all citizens. Further, the recognition of Amerindian Heritage Month, Emancipation of African slaves, and Arrival Day for the Portuguese, Chinese and East Indian communities celebrate the multi-ethnic origins of the Guyanese society.

Recognition of the diversity of the nation's heritage was augmented with the creation of three new monuments, completed in 2021 and honouring aspects of Guyana's shared and collective past. These are i. the Chinese Arrival Monument, ii. the 1823 Demerara Revolt Memorial and iii. the 1924 Ruimveldt Massacre Memorial.

In addition, conservation works were completed on several historic places of worship – churches and temples, in the city and across communities. Restoration and rehabilitation works were carried out at specific national heritage sites including Enmore Martyrs, Rose Hall, 1763 Monument, Fort Zeelandia Court of Policy Hall, Fort Nassau, and the Hog Island Sugar Windmill site, ensuring long term preservation, protection, public access, and enjoyment. Not only were historic sites upgraded with new infrastructure that conforms to public safety standards and allows for the inclusion of persons with physical disabilities and visual impairment, but the materials used were sourced locally with a view to ensuring sustainability for the benefit of present and future generations. Additionally, efforts to digitise some of the collections within the national museums, archives and the National Gallery of Art have begun (SDG Target 11.4 and 11.c).

## Investing in Culture to Foster Cultural Awareness and Support Sustainable Tourism

Resilience also proceeds from a society's own agency in its development and progress. The creative industries sector, which is linked to the cultural sector, provides employment for an ever-increasing number of Guyanese of all ethnicities and economic stratification. Government continues to link cultural heritage preservation work to new development initiatives occurring throughout Guyana.

Guyana offers support to various communities through annual Cultural and Creative Industries Grants, aimed at supporting the promotion and development of our culture. Between 2019 and 2023, $80 million was disbursed to the creative class in Guyana to offset costs associated with improving local cultural products and services and to promote the development of new cultural offerings. Each grant is valued at an average of $1 million, and between 2019 and 2022, approximately 65 persons have benefited. Among the projects awarded are the production and marketing of Indigenous products, support of the construction and furnishing of recording studios, training for young artistes in the music industry and the development of community tourism. Consideration is always given to ensuring that the grants are distributed equally among the ten Administrative Regions. In addition to the grants, the Government provides training in the creative arts industry to support the creation of small businesses and to allow for improved standards across the industry (SDG Target 11.4).

**Figure 47:** Disbursement of the Culture and Creative Industries Grant 2021

In 2022, Guyana introduced Youth Culture Camps, which exposes youths to heritage awareness, education, and training opportunities in the industry. Heritage – tangible and intangible, cultural, and natural, visual art, music and dance components were integrated in the programme in an effort to offer a holistic exposure to various aspects of culture and heritage to the young people of Guyana. The camps were held in eight (8) locations across six (6) Administrative Regions. Approximately 240 participants gained skills in playing musical instruments, creating art, learning about monuments and sites through field trips (geared at enhancing interpretation, care and management, and archaeology) and developing dance techniques (SDG Target 11.4).

**Figure 48:** Learning to play African, and Indian drums, Youth Culture Camp Berbice 2022

Guyana's diverse cultural assets offer heritage-tourism opportunities while serving as rich repositories for living histories and ensuring that communities remain resilient, sustainable, and liveable. All public heritage sites offer free access and usage to the public in addition to museums and other cultural institutions thus aiding in empowering citizens and communities in relation to cultural heritage and its role in fostering a safer, unified, and resilient society. Heritage above all, is seen as a key component to sustainable national economic growth (SDG Target 11.4).

**Figure 49:** Storytelling, Guyana Prize for Literature Festival 2022

## Challenges, Emerging Issues and Addressing the Way Forward

One of the major challenges in the period of review was the impact of the COVID-19 pandemic on the sector. Cultural workers across the industry lost income and struggled to provide for their daily living. Guyana provided support through artiste engagement for national events. These events were held virtually. Emerging out of the crisis is the need for the establishment of a disaster recovery fund that could offer financial assistance to cultural workers who are affected by similar challenges.

Maintaining Guyana's cultural heritage is not without its challenges which include the contentious issue of the preservation of privately-owned historic buildings, lack of public awareness of the value of existing heritage and the replacement of local traditions with non-Guyanese ones. To address some of these challenges and imminent issues require updated legislation. As such, the MCYS has undertaken in 2023 to commence the process for updating the National Trust Act in an effort to improve heritage protection and preservation moving forward with Guyana's new development trajectory.

The theme of migration and Guyanese culture is under-explored and expected to be thoroughly addressed during consultations for the development of Guyana's National Cultural Policy.

Guyana will, very shortly, launch the 'Guyana Cultural Registry' intended to advance current efforts by directing attention to the wealth of talent within the local sector and allow for meaningful linkages with local and international vendors and consumers, thereby increasing the economic opportunities for Guyanese. This is particularly important for the support to the LCDS Micro and Small Enterprise Development (MSED) Project initiatives for entrepreneurs from Amerindian communities.

Recognising that cultural sites and artifacts are susceptible to natural disasters including fires, floods, and unstable environmental conditions, the Government is currently working with the Guyana National Commission for UNESCO on the development of a disaster risk plan for the culture in Guyana. Disaster Risk Management is an important aspect of heritage preservation, and the plan is expected to include an assessment of the value of the country's holdings, the development of a robust plan for protecting sites under the aegis of the National Trust, the Museum collections and the holdings of the National Gallery of Art and by facilitating training in risk management procedures for staff in the industry.

Moreover, the National Trust will continue to facilitate the rehabilitation of sites of significant historical importance within the capital city of Georgetown (established 1812) as part of the Guyana's urban renewal focus and planning.

## Lessons Learned

Diverse cultural assets offer heritage-tourism opportunities while serving as rich repositories for living history and continued community improvements. All public heritage sites offer free access and usage to the public, in addition to museums and other cultural institutions thus aiding in empowering citizens and communities in relation to culture, heritage and its role in fostering a safer, unified, and resilient society. Heritage above all, is seen as a key component to national and sustainable economic growth.

Public engagements to promote heritage education and awareness allowed society the opportunity to be aware of the diverse cultural resources and aided in them having access to information and heritage materials particularly during the COVID-19 global pandemic as physical access to some of the places was challenged.

Observances such as International Day for Monuments and Sites and International Museums Day through open public activities including thematic exhibitions, tours, lectures and school outreaches help to further advocate for protection and preservation of cultural and natural heritage at sites or museums.

Further, in relation to heritage protection, Guyana's Government has added to the list of national monuments new site designations in the capital city (Walter Rodney Memorials) as provided for under the National Trust Act. This national response to protection of cultural heritage reflects a leadership that is cognizant of the country's legacy, diversity and need to honour and promote same.

## Financing Key Initiatives

During the period 2019 to 2022, $570 million was spent on conservation of Guyana's cultural heritage particularly built heritage and in order to further our efforts in preservation, protection and conservation, another $1 billion will be required to finance key initiatives required safeguard, improve and protect our cultural heritage by 2030 (SDG Target 11.4).

# NATURAL HERITAGE

## Context and Key Achievements

Guyana is part of the Guiana Shield, a distinct eco-region of the larger Amazon Basin and the world's largest remaining tract of tropical rainforest, which hosts about 18 percent of the world's tropical forest carbon and 20 percent of the world's freshwater. Guyana is centrally positioned within the Guiana Shield, containing much of its representative ecosystems and biodiversity, while still featuring many endangered Amazonian species. Approximately 80 percent of all mammal and bird species, 61 percent of reptile species and 50 percent of amphibian species occurring in the Guiana Shield are found in Guyana. Of these, 260 species are on the Convention on International Trade in Endangered Species of Wild Fauna and Flora list and approximately six (6) percent of its mammals and fish, three (3) to four (4) percent of its amphibians and reptiles, and one (1) percent of its bird species are globally threatened. Guyana is also ranked as the country with the second highest forest cover (>80 percent forest), with very low deforestation rate. This rich natural heritage is of great local, regional, and global importance.

LCDS 2030 also acknowledges and recognises Guyana's rich biodiversity and diverse ecosystem of goods and services and has committed to ensure unprecedented investment in the infrastructure required to protect against climate change and biodiversity loss.

In an effort to safeguard and effectively manage these unique ecosystems, Guyana has made significant strides over the past 80 years in developing a National Protected Areas System

(NPAS), beginning with the creation of the Kaieteur National Park (KNP) in 1929. At that time, Guyana boasted the first national park in the Amazon region and was one of only three countries in South America to have a protected area (PA). Since then, Guyana has taken a measured approach to PA development, with the country's second oldest PA, the Iwokrama Rainforest Reserve, being formally established in 1996 (SDG Target 11.4).

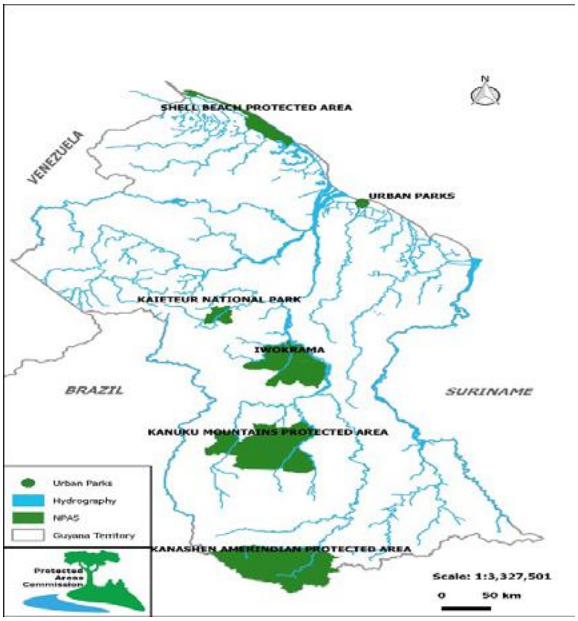



**Figure 50:** Map Showing Guyana's Protected Areas.

## Plans and Policies and Legislative and Institutional Frameworks

In 2011, the PA Act was made law and provided for the (i) protection and conservation of Guyana's natural heritage and natural capital, (ii) the creation, management, and financing of a national system of protected areas and (iii) the maintenance of ecosystem services of national and global importance including climate regulation. Shortly thereafter, two new protected areas, the Kanuku Mountains Protected Area (KMPA) and Shell Beach Protected Area (SBPA) were declared, following decades of preparatory work with local communities and other stakeholders. The largest and first ever indigenous owned PA, Kanashen Amerindian Protected Area (KAPA) was added to the NPAS in 2017. Also included in the system are four (4) urban parks: the Botanical Gardens, Zoological Park, National Park, and Joe Vieira Park. The PAs together with the urban parks, accounts for approximately 8.4 percent of the country's land area (SDG Target 11.4 and 11.7).

The PA Act of 2011 also established the Protected Areas Commission (PAC) as a body corporate, governed by a Board of Directors, with a mandate to ***establish, manage, maintain, promote, and expand*** the NPAS. The Commission directly manages SBPA, KNP, KMPA and the Urban Parks. Iwokrama is governed under the Iwokrama Act and an International Board of Directors. Kanashen Village Council is the management authority for the KAPA and is responsible for its management. The PAC provides technical support to both Iwokrama and KAPA.

In keeping with the requirements of the PA Act, a System Plan was developed in 2013 and a PA Strategic Plan for the period 2016 – 2022. Over the past ten years the PAC has continuously worked with local and indigenous communities and other key partners to improve participation and decision making in the management of protected areas. Some key achievements include:

- Enhancement and upgrading of the Urban Park Facilities (Botanical Gardens, Zoo and National Park) through the Three Parks Initiative
- Establishing a Site Level presence in SBPA, KNP and KMPA. All sites now have a Ranger Team with supporting Technical Staff.
- Addition of Guyana first Indigenous Protected area to the NPAS.
- Preparation and implementation of the PAC Strategic Plan and Management Plans for KMPA, SBPA and KNP.
- Successful implementation of the Management Effectiveness Tracking Tool across the NPAS. Results have shown that all site values have improved significantly since 2015.
- Provided strong support to local governance structures and initiatives, and where possible, ensured benefits accrue to local and indigenous communities.
- Supported the Government of Guyana and the EPA in meeting obligations under Multilateral Environmental Agreements.

The PAC has been promoting the NPAS nationally and internationally through research, education and awareness programmes and nature camps with schools and communities as we aim to build the awareness and consciousness of all Guyanese towards love and stewardship of our natural patrimony (SDG Target 11.4).

## Challenges, Emerging Issues and Addressing the Way Forward

Guyana's ecosystems and biodiversity are generally well preserved; however, its natural resources are under increasing pressure from extractive industries, the wild meat trade and overfishing of inland rivers. While these activities are economically important, the country's resources must be used sustainably in order to achieve long term prosperity.

During the COVID-19 pandemic management of the NPAS was severely affected due to travel restrictions and infrequent monitoring activities. Illegal extraction spiked in some protected areas, however as travel restrictions were relaxed the PAC was able to work along with key stakeholder agencies and local communities to effectively end these activities. Currently, an inter-agency monitoring enforcement response team has been established to quickly address future activities of this nature.

Climate change negatively affects biodiversity, livelihoods and natural processes at a global level. Its impacts are particularly evident in developing countries such as Guyana, where populations are often heavily dependent on natural resources. At the Shell Beach Protected Areas four (4) of the world's seven (7) sea turtle species nest every year. Over the past four (4) years erosion of the beaches has accelerated which has resulted in the movement of infrastructure further inland. More importantly, this phenomenon has affected turtle monitoring programme. Data has shown that hundreds of eggs are washed off the beach even before they can be re-located by rangers. The PAC has implemented several measures to address this issue – including extending the monitoring period to September, relocating eggs, moving infrastructure further inland and conducting research to map and investigate beach morphology.

In the hinterland PAs, indigenous and local communities have reported of increased fires during extended drought season. This has affected local farms and wildlife generally. Stakeholders are coming together to implement a fire management plan in and around PAs and other areas of high biodiversity and diverse ecosystems.

Guyana's natural heritage is still being comprehensively defined. As such a next step is to regionally review, identify and document natural heritage assets.

Looking ahead, Guyana will be focusing on the safeguarding its natural heritage through the following actions:

- Development of a new Strategic and Management Plans for the PAC: This will be one of the key initiatives undertaken by the Commission in 2023, as all of the management plans and guiding documents have expired. Following reviews of these documents, the Commission will plan the process of collecting the needed information to develop these new plans through a participatory consultation process with key stakeholders.
- Transformation of the Urban Parks: The PAC's board and management have put together potential plans for projects and other infrastructure developments that will transform the Urban parks and make them more user friendly, while showcasing Guyana's flora and fauna to the visiting public.
- Joe Vieira Park: Major development is expected for this urban park to develop the green space in Region 3 into a premier urban space with bilateral partner support.
- Hinterland Protected Areas Infrastructure: To improve the overall management of the hinterland PAs, there are major infrastructure development works/projects that are to be completed/finalised in order to commence. These infrastructure projects include construction and or upgrading of administrative buildings, ranger stations and outpost, staff quarters etc.
- Commencement of work to increase terrestrial Protected Area coverage to 17 percent: The

Commission has the task of overseeing an increase of our protected areas coverage to 30 percent by 2030, which is in keeping with our national development strategy the LCDS 2030. As a shorter-term goal, the Commission has to begin work to get to 17 percent by 2025, which is a challenging but achievable goal and would require the doubling of our current coverage which stands at about 8.4 percent.

## Lessons Learned

The NPAS plays a critical role in ensuring Guyana's natural heritage and its social- ecological service values remain for future generations. Protected Areas in essence ensues conservation of natural resources and populations of globally important species, helping climate change mitigation and adaptation, and providing benefits and alternative livelihoods for present and future generations. Many of the areas adjacent to protected areas are titled Amerindian (indigenous) lands comprising six out of nine of Guyana's indigenous groups (45 communities). There is a long history and culture of resource use by communities in the country's protected areas, including hunting, fishing, farming, and gathering. Many of these areas are therefore extremely important features in the livelihoods and long-term developmental aspirations of local communities. The management of the NPAS is therefore defined by a "Parks for People" approach with community participation and enhanced local benefits being fundamental to the work of the PAC.

In Guyana, these communities have traditionally used PAs and their resources sustainably and have deep cultural and spiritual connections to these areas. It has been proven, particularly during the COVID-19 pandemic period that strong and fruitful partnership with indigenous communities and other stakeholders are necessary for the preservation and effective management of Guyana's natural heritage.

Equally important is the acknowledgement, promotion and fostering of local and indigenous traditional cultures that have contributed to the conservation of Guyana's forest and ecosystems for centuries. The PAC over the past five years has been promoting traditional knowledge and way of life, supporting the use of local languages and customs.

Finally, communities and other stakeholders close to conservation areas must see benefits and services flowing to their constituents. One area of focus is improving eco-tourism products that are linked to communities. The development of Guyana's protected areas system will directly contribute to the growth of the country's tourism sector, through the protection of important landmarks, landscapes and biodiversity, tourism marketing, and the development of tourism-compatible infrastructure. At the centre of this tourism/protected area partnership is Kaieteur National Park, which is Guyana's primary tourist destination. Visitation within Guyana's urban parks is also significant and growing. This makes the urban parks an extremely valuable platform, not just for marketing tourism to a domestic market, but also for improving awareness, education, and support among Guyanese for the conservation of Guyana's biodiversity.

## Financing Key Initiatives

This national strategy identifies biodiversity and ecosystem services as central to Guyana's economic growth, sustainable development and human well-being and as assets to support livelihoods. Consequently, it outlines Guyana's vision for the expansion and effective management of the NPAS. To support the implementation of these plans, Guyana's Government has committed to providing specific funding for the NPAS through the Protected Areas Trust Fund (PATF).

The PATF was also established under the Protected Areas Act 2011, as a corporate body, governed by a Board of Trustees to manage a Trust Fund which was set up to provide financing for the NPAS. The Trust Fund functions as an endowment fund to preserve capital while investing globally to earn annual returns of approximately five (5) percent. Revenues generated are used to support projects that contribute to, or promote, the conservation and preservation of biological diversity and maintenance of the ecosystem services of the protected areas. Funds from the PATF are used to co-finance the implementation of protected areas management plans, strengthen monitoring and enforcement in protected areas, support sustainable community enterprises, biodiversity conservation, and environmental education and awareness.

In addition to funds provided through the PATF, Guyana's Government provides an annual subvention for the management of the NPAS. During 2015 – 2022 a total of $3.8 billion was disbursed by the Government to the PAC for the management of the NPAS.

A third Guyana Protected Areas System (GPAS) project is currently underway with the support of the Government of Germany through the German Development Bank (Kfw). This project will conclude in July 2023 and covers critical infrastructure and equipment needs and capacity building, for PAC, local communities, Government agencies and other partners. For the period of 2020 to 2022 a total of $250 million has been spent.

Other international NGO's who partner with the PAC continue to provide annual financing such as Frankfurt Zoological Society for KMPA activities (2015 to 2022 financing – $324 million), World wildlife (WWF) (2015 to 2022 financing – $87 million) for SBPA turtle monitoring and Conservation International, who have earmarked funds for KMPA and Kanashen in the PATF and also provide ad hoc funds for individual projects or activities. Lastly, several small grants from a variety of donors are requested/received on an ad hoc basis for specific activities.

## Data Systems Strengthening

Guyana has implemented a €4.8 million GPAS III Project funded by a bilateral development partner to improve infrastructure and effective monitoring of the NPAS.

# DISASTERS AND DISASTER RISK MANAGEMENT

## Context and Key Achievements

Guyana is becoming increasingly vulnerable to the disasterous effects of climate change which Guyana's Vice President Dr. Bharrat Jagdeo has described as an existential crisis. Guyana is located on the northern coast of the continent of South America, with parts of its coastal plain being about 2 metres below mean high tide. With rising sea levels and the growing frequency and scale of extreme weather events such as floods and droughts, the impacts of climate change continue to be felt across the entire country. Strengthening resilience, through climate adaptation, mitigation, disaster preparedness, management and response have become part of the common vernacular, because of their critical importance to combatting the effects of climate change as a SIDS. This was evidenced by the damage caused by the 2021 floods, which affected all of the 10 Administrative Regions and caused impacts, on a scale only reminiscent of the 2005 floods. See Table i below for rainfall data for May 2021. Estimates suggest that, by 2030, Guyana could lose US$150 million per year in flood-related losses, whereas an event similar to the 2005 flooding might lead to US$0.8 billion in losses and affect more than 320,000 people[26] (SDG Target 11.5).

**Figure 51:** Aerial View of 2021 Flooding in Kwakwani, Region 10

26 Ministry of Public Works: Climate Resilient Investment Programme for the Road Transport Sector in Guyana, May 2021, pgs. 11 – 12

**Table 9:** Highest Recorded Rainfall for the May Since 1981 (Hydrometeorological Services)

| Ranking | Year | Country Avg. (mm) | Ranking | Year | Country Avg. (mm) | Ranking | Year | Country Avg. (mm) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2004 | 658.4 | 15 | 2018 | 520.9 | 29 | 1984 | 440.8 |
| 2 | 2021 | 607.7 | 16 | 2015 | 520 | 30 | 1985 | 439.8 |
| 3 | 2010 | 607.7 | 17 | 2016 | 511.2 | 31 | 1983 | 434.6 |
| 4 | 1996 | 590.8 | 18 | 1998 | 510.9 | 32 | 1987 | 433 |
| 5 | 1981 | 565.3 | 19 | 2002 | 503.8 | 33 | 1995 | 429.6 |
| 6 | 2000 | 558.8 | 20 | 2017 | 503.1 | 34 | 1986 | 421.4 |
| 7 | 2019 | 549.7 | 21 | 2008 | 498 | 35 | 1989 | 415.4 |
| 8 | 2003 | 545.3 | 22 | 1994 | 493.9 | 36 | 1988 | 403.2 |
| 9 | 2007 | 545.2 | 23 | 1982 | 491.3 | 37 | 1992 | 398.7 |
| 10 | 2013 | 545.2 | 24 | 1993 | 487.5 | 38 | 1999 | 383 |
| 11 | 2012 | 538.5 | 25 | 1997 | 487 | 39 | 1991 | 362.5 |
| 12 | 2006 | 536.4 | 26 | 2020 | 474.5 | 40 | 2014 | 358 |
| 13 | 2011 | 532.6 | 27 | 1990 | 473.2 | 41 | 2009 | 270.2 |
| 14 | 2005 | 521 | 28 | 2001 | 465.2 | | | |

## Plans and Policies and Legislative and Institutional Frameworks

Disaster preparedness, management and response in Guyana is coordinated by the CDC which is guided by the National Disaster Risk Management Policy (2013). The policy sets out to establish the guiding principles and architecture for disaster risk management (DRM) and also seeks to provide an overarching framework for decision-making and coordination across DRM sectors and stakeholders, inclusive of government, civil society, private sector, and the international community. Other hazard specific plans and standard operating procedures include the Health Emergency Response Plan, Oil Spill Response Plan, and the National Shelter Management Policy (SDG Target 11.b).

Disaster Risk Management in Guyana is organised across three levels: National, Regional and Municipal/ Community based. The national Disaster Risk Management Policy (2013) is implemented through the 2021-2025 Comprehensive Disaster Management (CDM) Country Work Programme (CWP). This results-based, climate-smart CWP provides Guyana with a systematic way to address CDM and Disaster Risk Reduction (DRR) at the country level, while fulfilling Guyana's commitments to the regional – Caribbean Disaster Emergency Management Agency's (CDEMA) CDM Strategy 2014 – 2024, and the international Sendai Framework for Disaster Risk Reduction (SFDRR) 2015 – 2030 and SDGs. It is intended to guide the implementation of CDM programmes across all sectors in Guyana (SDG Target 11.b).

Regional Disaster Risk Management Systems (RDRMS) and Community Based Disaster Risk Management (CBDRM) aim to mainstream CDM by building local capacity to reduce risk. The programmes target Regional officials, members of democratic organs and residents. RDRMS and CBDRM have been implemented at all levels of Regional and Local Government – that is in nine (9) or 90 percent of Guyana's Administrative Regions, and in four (4) or 4.6 percent of Neighbourhood Democratic Councils (NDCs), six (6) or 60 percent of municipalities, and 38 or less than 3 percent of communities across Guyana (SDG Target 11.b).

The overall aim of the RDRMS is to detail the arrangements to cope with the effects of natural and/or man-made disaster impacting each of the 10 Administrative Regions. It seeks to assign roles

and responsibilities and to provide coordination in response to emergencies and disasters for stakeholders such as civil society, the news media, and public and private sectors. The RDRMS incorporates all DRM activities from preparedness to response and brings together a full range of regional capabilities to prepare for and manage emergencies and disasters (SDG Target 11.b).

Further, CBDRM involves at-risk communities that are actively engaged in the identification, analysis, treatment, monitoring, and evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities. The aim is to create resilient people living within resilient communities within resilient environments within resilient countries." CBDRM aims to bridge the gap between Regional and local level disaster management. Incorporated into to the CDC, is a Volunteer Corps (CDC VC) which focuses on supporting the functioning and initiatives of the CDC, particularly at a community level. The CDC VC is an invaluable body comprising a growing resource pool of more than 200 registered volunteers. Volunteers range from military personnel, students, nurses, teachers to doctors who have been trained in areas such as search and rescue, DRM, community mobilisation, first aid, damage assessment and conflict resolution (SDG Target 11.b).

Through the RDRMS and CBDRM, multi-hazard preparedness and response plans were developed in-keeping with the CWP and national DRM strategy and plan. Additionally, DRM committees were established at the Regional and community levels, capacity building by way of DRM training was provided, and emergency response equipment and gears were supplied through these programmes (SDG Target 11.b).

In 2018, Guyana conducted a CDM audit. The audit utilised a consultative, multi-sectoral process among 16 national agencies, with the support from CDEMA. The audit process followed the guidelines for CDEMA Participating States in alignment with the SFDRR and examined all four (4) phases of disaster management – mitigation, preparedness, response, and recovery – (SDG Target 11.b). The results of these assessments have been instrumental in Guyana's strengthening of its DRM systems, especially in light of the recent disasters it has had to address, that is, the COVID-19 pandemic and the 2021 flood. Box 10 below provides a synopsis of Guyana's 2021 floods.

**Figure 52:** 2021 Floods in Kwakwani, Region 10

**Box 10:** The 2021 Floods in Guyana

### Water-related Disasters

Guyana's most recent water-related disaster was the 2021 floods. The widespread effects of the 2021 flood resulted in it being declared a national disaster by His Excellency Dr. Mohamed Irfaan Ali in June 2021. The economic losses attributed to the 2021 floods were estimated at 12 percent of GDP. Fortunately, there were no recorded direct deaths or missing persons associated with the floods. However, the severe impact of flood on the agriculture sector resulted in Guyana's Government having to distribute flood relief grants to 55,667 farmers between 2021 and 2022 at total cost of $7.8 billion (SDG Target 11.5). Below are extracts from the Ministry of Finance 2021 Mid-Year Report which presents a summary of the socio-economic impacts of the 2021 floods on the people of Guyana.

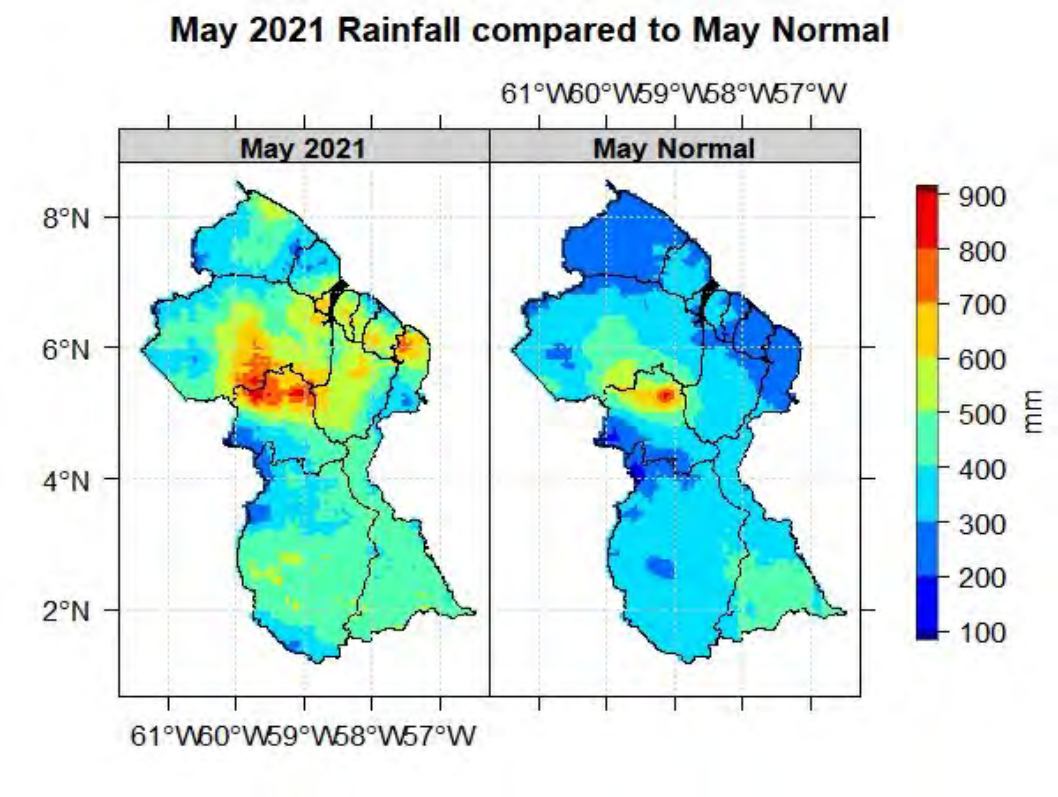



**Figure 53:** Rainfall in May 2021 vs Normal

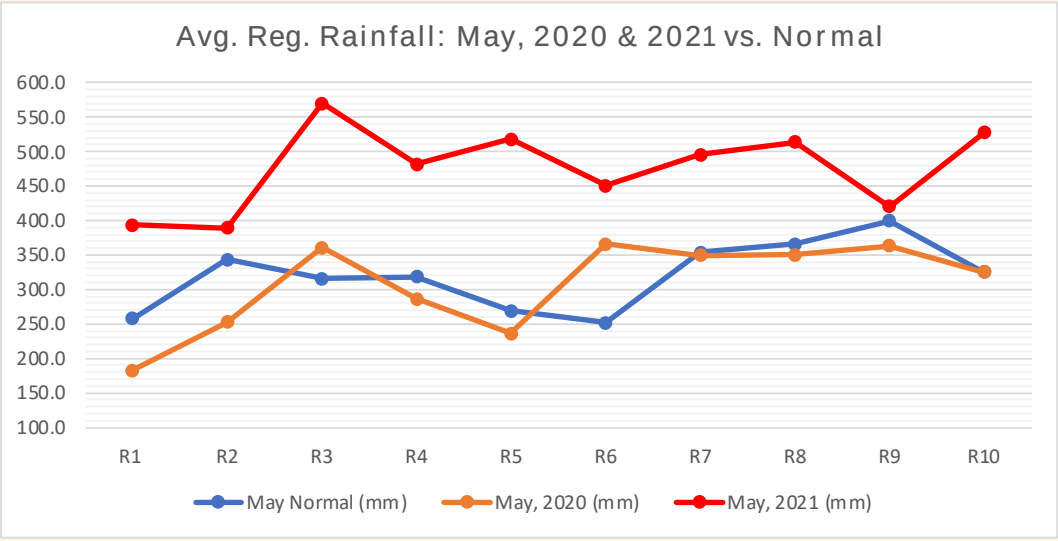



**Figure 54:** Graph Showing Avg. Reg. Rainfall: May 2020 and 2021 vs Normal for 10 Administrative Regions

The national Hydrometeorological Services reported May 2021 as having the second highest recorded rainfall since 1981 at a level of 607.7mm. The intensity of the rainfall in May 2021 coupled with pre-existing soil saturation conditions that resulted from above normal rainfall for the period January to April 2021 led to extreme conditions in many regions. Notably, in May 2020 Regions 3 and 6 recorded above normal rainfall; however, in 2021 all regions recorded above normal rainfall for the month. Further, an increasing scale of inhabitation along the riverain areas and riverbanks contributed to the expanded scale of impact. The above normal rains resulted in flooding across all Administrative Regions of Guyana with some areas experiencing flood water levels that covered homes, businesses and farmlands. His Excellency Dr. Mohamed Irfaan Ali declared the floods a disaster on June 9, 2021 and Government moved swiftly to secure a supplemental budget allocation of $10 billion which was approved by the National Assembly on June 14, 2021. As of June 18, 2021, hundreds of persons were housed in shelters with an undetermined number of displaced people housed at friends and families. It is estimated that almost 52,000 households were directly affected. Preliminary estimates recorded over 33,000 farmers and over 90,000 acres of farm and farmlands affected. Almost 4,000 livestock farms and over 17,000 acres of commercial crops were lost, the latter substantially higher than the 4,440 acres lost in the 2005 floods.

**Figure 55:** Collage of Images of 2021 Floods Across Guyana

Government took immediate action to support the affected communities by delivering food hampers and sanitising supplies and other flood relief interventions. On July 31, His Excellency announced that financial grants will be disbursed to affected households. President Ali noted that "government is making several direct transfers to allow farmers to "return to some level of normalcy in their homes" while supporting the agriculture sector to return to productive capacity, so as to mitigate against potential food shortages." Grants will be distributed to homestead farmers, kitchen garden owners and households without homesteads or kitchen gardens. Large scale farmers, particularly of rice and poultry, will receive assistance of no more than $10 million each, while small, medium and large-scale livestock farmers also stand to benefit from assistance in excess of $600 million.

The 2021 growth forecast was revised downwards, attributed partly to the above normal rainfall that affected the achievement of production targets in several key sectors including agriculture, forestry, and mining and quarrying sectors. Notably, the floods in 2005 contributed to 2 percent decline in GDP and damages estimated at 60 percent of GDP .

Coordination of the national response to the 2021 floods was led by the CDC, and involved a multi-stakeholder approach, due to the magnitude of the disaster. Responding to the floods and the COVID-19 pandemic placed immense strain on the country and is a testament to the need for investing in DRM, as the frequency and impact of disasters continue to increase.

**Figure 56:** 2021 Flood Response Coordination by CDC

## Challenges, Emerging Issues and Addressing the Way Forward

As Guyana continues to establish the key elements of an effective DRM system across the country, there are several areas which still require further strengthening. Within the country, there is limited key technical skills and capabilities available as well as resources for Damage Assessment and Needs Analysis (DANA) systems. In response, there should be scaling up of National DANA systems and Regional Damage and Loss Assessment. Further, there is need for increased coordination to ensure that Guyana's early warning systems function effectively.

**Figure 57:** 2021 Flood Assessment Pomeroon River – Detail Damage Sector Assessment (DDSA) Teams

At the regional level, there are also resource limitations, including human resources to support the implementation of RDRMS and the scaling up of CBDRM. To address this, there is need for the recruitment of Regional Disaster Management personnel at each Regional Democratic Council. Further, there needs to be budgetary allocations for preparedness, and response at Regional, municipal and NDC levels.

Additionally, the absence of an enacted legislative framework to provide the legal environment for the implementation of DRR in Guyana is a challenge that needs to be addressed.

## Lessons Learned

Effective DRM in Guyana requires scaling up of the CBDRM programme across the country as well as increasing the number of volunteers in Regions 1, 2, 7, 8, 9 and 10. In addition, capacity building at the Regional and local administrations is necessary for effective mainstreaming of DRM plans. This includes, staffing, facilities, training, among others. Importantly, capacity building in M&E of DRM at both national and regional levels requires strengthening.

Preparation for unknown hazards should be considered in planning and budgeting, taking COVID- 19 as an example and given the escalating threat of the myriad of negative impacts of climate change. Further, support is needed in improving and scaling up assessment teams for disaster response to better inform response activities and reporting. Scaling up GIS systems and personnel to better inform on spatial dynamics for effective use and deployment of resources also requires strengthening.

### Partnerships

Partnerships have proven to be critical to Guyana's DRM progress. Use of the DRM Platform which comprises government ministries and agencies, National Oil Spill Committee, Regional Disaster Risk Management System, civil society, the Joint Services, the Civil Defence Commission Volunteer Corps, the CDEMA, Pacific Disaster Center, the United Nations and bilateral partners has aided this progress.

## Data Systems Strengthening

Data systems strengthening is required for DRM in Guyana. M&E personnel, an M&E Plan for DRM, software and tools are key inputs which are urgently needed to advance the data system, all of which require resource allocations. There is also need for a data management platform to improve access to quality data.

Importantly, in 2021, Guyana conducted a National Disaster Preparedness Baseline Assessment (NDPBA) – with the support of the Pacific Disaster Center. The NDPBA aimed to establish a national baseline for priority hazards and vulnerable communities/populations with requisite mapping and analysis that aims to strengthen DRM across all sectors. This process resulted in the provision of a final report on Guyana's Disaster preparedness and access to the Disaster Aware Platform. This is a GIS tool which aids in planning and response for DRM and can be accessed across different devices including mobile phones.

# ENVIRONMENTAL IMPACTS OF CITIES: SOLID WASTE MANAGEMENT

## Context and Key Achievements

Guyana has pursued a number of strategic interventions to enhance solid waste management (SWM) across all local democratic organs (LDOs). These interventions are captured within the national SWM programme and are guided by the LCDS 2030 which also integrates the SDGs. Guyana's SWM programme is designed to enhance the infrastructure supporting the collection, disposal, and storage of solid waste throughout the local government system in a safe and sustainable manner. Its primary focus is curbing the practice of open dumping of solid waste within communities, development of controlled sites to encourage safe disposal of municipal solid waste, protection of public health and the environment and overall promotion of sustainable environmental practices. In the medium to long term, the aim is to develop at least one (1) controlled solid waste disposal facility in each of the ten (10) Administrative

Regions. These controlled waste disposal sites will be incrementally upgraded to satisfy the conditions of a sanitary waste management facility (SDG Target 11.6).

The Haags Bosch Sanitary Landfill (HBSL), which has been in operation for approximately 11 years, remains the only sanitary landfill. Ongoing upgrades include the construction of a passive gas collection system, storm water sedimentation and control ponds. The addition of the leachate treatment facility and the storm water sedimentation ponds are significant upgrades to the HBSL, which will significantly reduce the harmful contaminants of the effluent discharge and protect the surrounding waterways (SDG Target 11.6).

Guyana currently has 16 disposal sites across the country, however there are still uncontrolled disposal sites which are not commensurate to a sanitary landfill. All 16 sites were upgraded to controlled facilities, which has allowed for an increase in the available capacity for disposal of solid waste. The upgraded sites now operating as controlled landfills service the municipalities of Anna Regina, Rose Hall, Corriverton, New Amsterdam, Bartica, and Lethem (SDG Target 11.6).

Collaboration among key actors is critical to encouraging safe disposal of waste within the Regions. More recently, the local organs, EPA, GLSC, GUYSUCO, NICIL, the Mahaica Mahaicony Abary - Agricultural Development Authority worked together to identify suitable lands for waste management which resulted in three (3) sites currently being developed at Blairmont, Zorg-en-Vlygt and Bartica into sanitary landfill facilities inclusive of all-weather roads, culverts, bridges, cells and drainage networks (SDG Target 11.6).

## Challenges, Emerging Issues and Addressing the Way Forward

Guyana is rapidly increasing the number of housing developments which is dispersing the population thereby creating an increased demand for solid waste collection coverage for the local organs. This has heightened the need for collection equipment and the development of the planned solid waste facilities across the regions. In this regard, Guyana is pursuing multi- agency planning, focused on housing developments projections to improve its planning for solid waste infrastructure and services. The collection coverage is compounded by the availability of lands in the various Regions where housing developments are occurring. These developments are increasing the demand for disposal facilities which must be met with urgency as Guyana seeks to reduce the negative environmental and health effects of improper waste disposal.

Guyana is currently reviewing and updating the draft Solid Waste Management Bill and consultations with primary stakeholders such as the private sector, public institutions and the LDO, among others have commenced. Upon completion, the legislation is expected to contribute to creating a cleaner environment, improved public health protection as well as strengthened human and institutional capacity. As Guyana seeks to increase its focus on waste management, it acknowledges that waste management must be better incentivised and regulated, in order to promote waste to resource activities, combat climate change and create an enabling environment for business.

### Effects of COVID-19 on the Solid Waste Management Programme

The pandemic significantly affected plans in the sector as it relates to the human resource capacity development within the LDOs. The restriction on in-person gathering affected the training of personnel from 2020 to 2022, as Guyana had intended to train over 50 LDO officials, but was unable to train any, as well as the monitoring of projects, with a total of 51 projects monitored out of 65. These projects related to infrastructure development and operations at landfill sites and were critical to advancing waste management.

Additionally, the disruption of the global supply chain affected the delivery of consumables such as geo-textiles, high density polyethylene pipes, aggregates, among others. Further, machinery, personnel and finances had to be diverted to mitigate the effects of the pandemic. Across almost all sectors, one of the main responses to COVID-19 was the uptake in the use of virtual

platforms to ensure the continuity of service delivery. However, this was a challenge due to poor internet connectivity across Regions, which is another issue Guyana is seeking to address as part of its national development trajectory.

## Lessons Learned

Multistakeholder inclusivity – governments, residents, private sector, partners- is critical to the success of transforming the solid waste sector. There is need for the consistent involvement of all stakeholders. Failure in this regard results in crucial information gaps and low levels of response and cooperation.

There is an urgent need to formalise persons involved in material recovery as a business endeavour. Currently, it is largely undertaken by loosely organised groups of persons (waste pickers). To promote material recovery, and other waste utilisation methods, Guyana will be taking steps to organise material recovery, since the current structure is unsuited to the objective of sustainable management.

## Financing Key Initiatives

Pursuant to the objective of the SWM programme to curb the practice of open dumping of solid waste within communities, and accelerate the development of controlled sites for the safe disposal of municipal solid waste, to protect public health and the environment, and promote sustainable environmental practices over the next three years, critical initiatives to be undertaken include:

**Table 10:** Key SWM Initiatives for the Medium -Term

| No. | Initiative | Estimated Cost |
|---|---|---|
| 1 | Controlled landfill facility in each of the 10 Regions | US$ 6 - 8 million per facility |
| 2 | Waste transfer stations in at minimum 2 Administrative Regions - 5 and 6 | US$ 2 million for each station |
| 3 | Waste Separation Facilities in each of the 10 Administration Regions | US$ 3 - 5 million for each facility |
| 4 | Pilot Recycling facility – tyres for road building | US$ 3 million |
| 5 | Acquisition of collection vehicles and related equipment | US$ 5 million |

Source: MLRGD

## AIR QUALITY MANAGEMENT Context and Key Achievements

The Government of Guyana recognizing its unprecedented development over the past few years and its commitment to preventing air pollution and ensuring clean air, as enshrined in the Environmental Protection (Air Quality) Regulations, 2000 (SDG Target 11.6), embarked on building its capacity and developing a programme to detect and monitor its national air quality.

In 2022, with support from IQ Air [27]five (5) air quality monitoring stations were strategically placed in Regions 2, 4, 6 and 10 (Figure x) based on potential impacts to air from industrial activities within these Regions,. These Air Quality Sensors provide remote real time measurement of Particulate Matter ( PM 2.5 and PM 10) concentration at any given time..


**Figure 58:** Map Showing the Location of Air Quality monitoring stations

27 IQAir is a Swiss air quality technology company, specializing in protection against airborne pollutants, developing air quality monitoring and air cleaning products. IQAir also operates AirVisual, a real-time air quality information platform. http://www.iqair.com

## Legislative and Institutional Framework

The Environmental Protection Act Cap 20:05 and supporting Regulations such as the Environmental Protection (Air Quality) Regulations, 2000 are the main pieces of legislation governing air quality management in Guyana. The Environmental Protection Act Cap 20:05 also established the Environmental Protection Agency with key functions reflected in its authorisation process, complaint investigation, compliance monitoring and assistance, education and awareness as well as enforcement, which aid in preventing and managing public exposure to potential harmful levels of particulate matter.

Through the authorisation process, the Agency can identify, and evaluate the direct and indirect effects of proposed developmental projects on the environment including air and climatic factors. Through its screening process, the Agency determines whether an Environmental Impact Assessment (EIA) is required for the proposed developmental activity. An EIA often requires extensive baseline collection including the ambient air quality conditions in the proposed project area as well as its area of influence.

The EPA, through its environmental permits, mandates developers to implement Best Available Technology (BAT) and practices to reduce and/ or prevent air pollution. According to the measures outlined in the permits, the EPA conducts routine compliance audits and inspections to assess compliance with the permit conditions. One such permit condition is compliance with the WHO Standard for PM2.5 and PM10 per 24 hours. Non-compliances are followed up with assistance to improve practices and recommendation on technology and other measures to mitigate and manage any potential impacts. Persistent noncompliance and emissions above permissible levels can result in legal action being taken against the operator in accordance with the Environmental Protection Act and Regulations. The Air Quality, Regulations, empowers the EPA to curtail the operation of sources of air pollution which may be contributing to increased air pollution and resultant high levels of Air Quality Index (AQI). The Regulations stipulate that any person who is guilty of the offense of operating sources resulting in an air pollution episode shall be liable on summary conviction to a fine of not less than $70,000 nor more than $300,000 and imprisonment for three months.

## Air Quality Monitoring

In 2021, Government of Guyana procured four (4) Hazdust air quality monitoring equipment at the cost of $2 million, to boost its air quality monitoring capability. The Hazdust allows the Agency to conduct onsite, real-time monitoring of facilities that emit particulate matter into the air. These devices are used to determine whether ambient concentrations of particulate matter are within the required WHO limits. Findings that indicate concentrations are above the required limits result in the Agency taking action to ensure that facilities implement best practices and technology to reduce emissions into the air. Common sources of particulate matter from operations in Guyana include sawmilling, rice milling, furniture workshops, road construction, and auto body workshops (SDG Target 11.6).

**Figure 59:** Onsite Monitoring of Particulate Matter, EPA Photo

The EPA works closely with key partners and sister agencies in its air quality monitoring programme. In May 2022, the EPA in collaboration with the Hydrometeorological Service issued a first and only joint public advisory regarding increased concentrations of particulate matter (PM2.5) which had exceeded the WHO standard in several regions across Guyana. The increase in concentrations of particulate matter at that time was due to significant amounts of dust traveling across the northern tropical Atlantic to the Caribbean from the Sahara region, commonly known as the Sahara Dust Phenomenon (SDG Target 11.6).

**Figure 60:** Air Quality (Sensor) monitoring station mounted at the EPA Office, Georgetown, region 4

Guyana is a well-known carbon sink, renowned for its vast stretches of untouched forests which remove particulate matter and many other air pollutants. Despite expansive construction and infrastructural development, coupled with increased transport across the country, and periodic/ short-term episodes of increased particulate matter concentrations, the air quality in Guyana remains good to moderate overall, with daily AQI ranging from 8-53 .

Episodes of increased particulate matter concentrations were as a result of a combination of construction and infrastructural development, increased vehicular traffic, and natural factors such as the Sahara Dust Phenomena. The EPA continues to work with facilities to implement the best available technology and practices to reduce emissions into the air (SDG Target 11.6).

The Government of Guyana has made progress to maintain its good air quality through robust compliance and enforcement of its the Air Quality Regulations, 2000, and by promoting the best available technology and practices.

As mooted by the EPA, 'the environment is everyone's business'. The EPA is committed to increasing environmental literacy since it is through an understanding of environmental issues that individuals will be equipped to make informed and responsible decisions that safeguard the environment and protect human health. The Agency constantly engages the public through monthly television programmes aired weekly. There are also weekly radio programmes aimed at sensitising individuals on environmental issues such as air quality of particular focus was the open burning of waste which tends to occur at the household level. Best practices to manage operations such as autobody and furniture workshops were also discussed during these engagements. Radio programmes reach people in most Regions of the country including 1, 7, and 10. In 2022, the Agency promoted the celebration of the third International Day of Clean Air for blue skies under the theme 'The Air We Share'. Carpooling was one action encouraged during this time.

**Figure 61:** Individual Engagement in EPA's Monitoring Capability During a Public Outreach, EPA Photo

## Challenges, Emerging Issues and Addressing the Way Forward

As Guyana works to achieve Goal 11 by 2030, it must overcome challenges. The following fishbone analysis outlines the cause-and-effect relationship between their gaps and current reality:

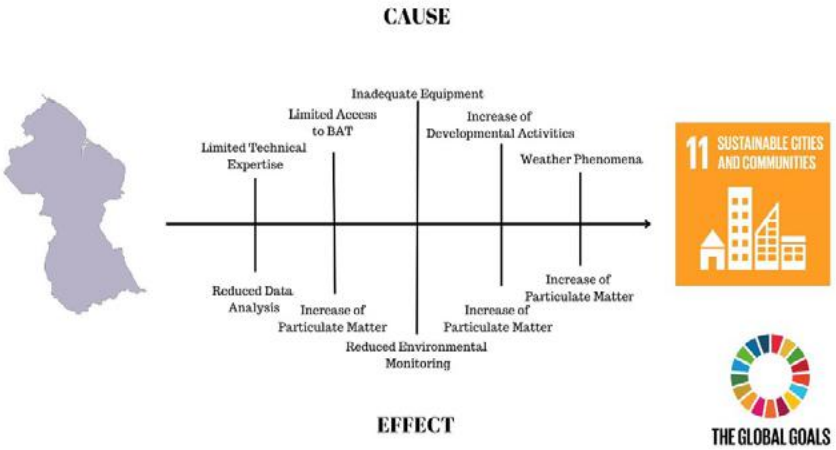



**Figure 62:** Fishbone Analysis of Challenges in Air Quality Management, EPA

While the country currently possesses the capability to monitor particulate matter, there is still a need to increase the current suite of equipment as well as to expand continuous real-time monitoring to other areas, particularly in Regions 3 and 5, to assess the impacts of the expanding oil and gas sector as well rice milling activities. The acquisition of new technology will require training and retraining of personnel to ensure that the data collected is adequate and reliable. Expertise will also be required to manage the data collected as volumes increase to successfully guide decision-making. While the oil and gas sector will continue to propel development in Guyana, which can result in increased emissions of particulate matter, the legislative framework complemented by adequate equipment and trained personnel; emissions can be effectively managed to reduce concentrations of particulate matter in cities and towns locally.

held Local Government Elections on the 12th of June of this year, which provided citizens with an opportunity to elect their local representatives to sit on the Municipal and Neighbourhood Democratic Councils (SDG Target 11.a).

The LCDS has outlined Guyana's policy direction and vision into the long-term. At the local level, regional planning is being guided with the use of Regional Profiles. These profiles were compiled in August 2021 and the data provide a snapshot of the major characteristics and competitive advantages of each Administrative Region. The profiles contain the core data set which can inform the preparation of the regional plans in areas related to demography, geography, economy, health, education, agriculture, among other core areas. This baseline information will be used as an entry point to understand the local context of each region. See examples of Regional Profiles below:

# REGIONAL PLANNING

## Context and Key Achievements

Guyana has ten (10) municipalities, spread across eight of the ten Administrative Regions, with the exception of Regions 3 and 5. Guyana's current focus is on strengthening its municipalities to better manage their resources, take on greater maintenance responsibilities for key infrastructure and to improve the overall quality of service at the local level in the medium term. Moreover, Guyana


**Figure 63:** Regional Profile for Region 1 – Barima/ Waini

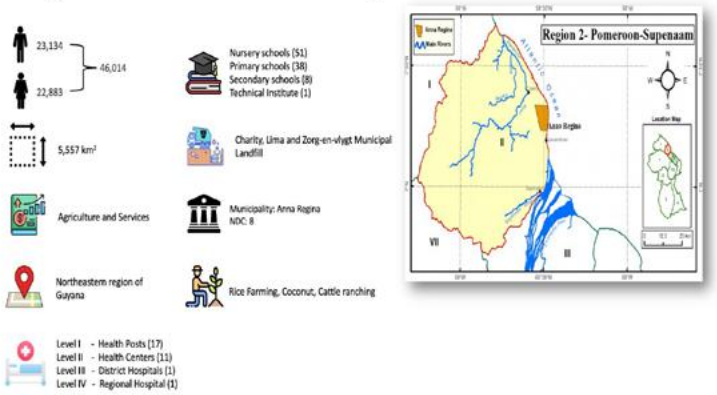



**Figure 64:** Regional Profile for Region 2 – Pomeroon Supenaam

**Box11:** Regional Planning Strategic Objectives (MLGRD)

Regional development is being guided by the following strategic objectives:

- Improve the quality of administrative services to facilitate the effective implementation of local government work programme
- Completion of ten (10) Regional Development Plans
- Provision of institutional and capacity support for human resource and regional economic development
- Strengthen the regional planning framework
- Create a safe, healthy, and professionally enabling work environment
- Capacity building and institutional strengthening of LDOs
- Strengthen management function and accountability systems of LDOs
- Expand entrepreneurial support for Sustainable Community Development
- Improve DRM at the local level
- Enhance awareness on Sanitation and Solid Waste Management across LDOs
- Assessment and infrastructural development of locations to safely manage solid waste
- Increase access to Sanitary Disposal Facilities for LDOs

These objectives are the basis of programmatic guidance to the RDCs and as such, critical works have been undertaken which are designed to diversify the economic and production profile of the Regions. In order to ensure that there is greater access to lands, to increase connectivity and reduce travel time, regional roads have been constructed and maintained. Further, three (3) municipal markets were constructed, thereby creating a safer and more sanitary place for the display of produce and improved access for the residents of the Region. Importantly, entrepreneurship at the regional level has advanced through the provision of financial and capacity building to residents in order to increase production and income while reducing unemployment. To date, over 2,780 persons have benefitted from Regional entrepreneurial grants, of which over 1,722 were women. The grants are provided in cash, in kind, or a combination and not exceeding $250,000 (SDG Target 11.a).

Of note, preparatory work on Regional Economic Development Plans such as concept notes, terms of references and consultations plans were completed. However, due to COVID–19 and other challenges, work on this has not advanced as was initially planned. The pandemic related challenges manifested in the inability to have face-to face multistakeholder consultations, while internet connectivity for virtual consultations was not at the desired level.


# GOAL 17:

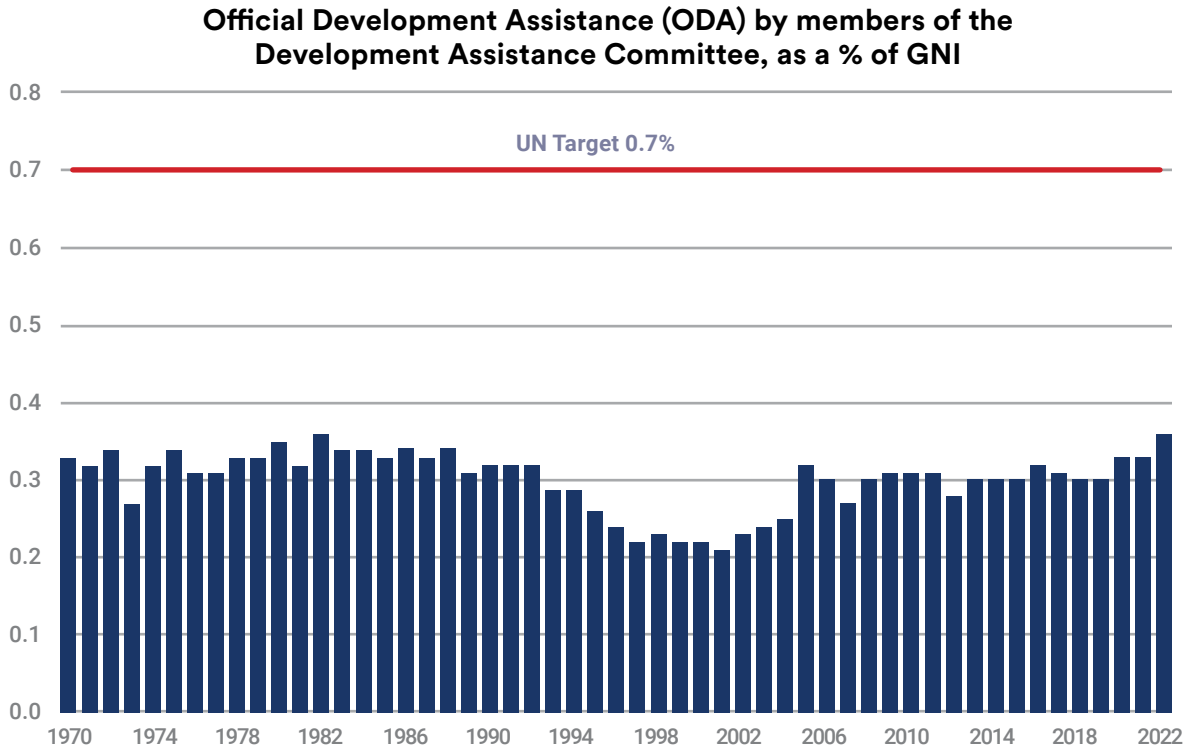
Strengthen the means of Implementation and Revitalize the Global Partnership for Sustainable Development

## Context and Key Achievements

Substantially strengthening the means of implementation and revitalising the global partnership for sustainable development just seven (7) years ahead of our global 2030 deadline is imperative to achieving the SDGs. Many of the disappointments identified with Goal 8 of the Millennium Development Goals have unfortunately transitioned to key components of Goal 17. As a global community committed to the 2030 Agenda, we must tangibly demonstrate and deliver on commitments made in global partnership agreements. Two flagship global partnership agreements unfortunately remain woefully unfulfilled. The 1970 recognition and commitment to delivering annually 0.7 percent GNI has to date only consistently been met by 5 individual countries of 25 countries (SDG Target 17.2). Decades of unfulfilled ODA has slowed developing countries' rate of progress by compromising their ability to scale both basic and catalytic development actions, as well as constrained access to affordable financing. Again in 2009, developed countries committed to mobilise climate financing to the sum of $100 billion by 2020. That also did not fully materialise.

Effective partnerships require trust and predictability of delivery on commitments made. Meaningful commitment to the SDGs requires urgent attention being given to key elements of SDG Target 17.2.

**Figure 65:** DAC Members ODA as % of GNI, OECD




*Source: OECD*

## Domestic Revenue Mobilisation

Guyana's graduation to an upper middle-income country in 2016 as a result of over a decade of consistent progress on key development indicators and maintaining a stable macro-economic environment was both a fillip and a burden. Like many graduated developing countries before Guyana, the reality of rapidly declining access to concessional resources in the face of substantial and growing development needs, against limited fiscal space translated to expanding debt.

Guyana's long-standing strategic support for offshore explorations for petroleum finally bore fruit in 2019. Domestic revenue mobilisation has been shored up with the production of first oil in December 2019 that has seen 216.9 million bbls of oil produced as at end April 2023. The Natural Resource Fund – Guyana's SWF – as at end May 2023 has recorded receipts of US 2.5 billion or 14.4 percent of GDP and according to the NRF Act 2021, withdrawals from the Fund can be made to finance "national development priorities… and essential projects that are directly related to ameliorating the effect of a major national disaster". Withdrawal amounts must be included in Government's annual budget proposal and approved by the National Assembly. In 2021, a total of US$607.6 million was withdrawn from the NRF and transferred to the Consolidated Fund to finance national development initiatives (SDG Target 17.1).

In addition, a long-standing low carbon approach to national development; and the recognition of the important role of Guyana's forests in national development; and in combatting climate change globally has also served to mobilise resources from domestic assets. Guided by the ground-breaking LCDS 2030, Guyana's vision and concerted actions towards monetising the climate and ecosystem services provided by its standing forest, while accelerating the country's economic development along a low carbon trajectory resulted in an additional revenue stream. On December 1, 2022, the Architecture for REDD+ Transactions announced the issuance of US$33.47 million TREES credit to Guyana for the five-year period from 2016 to 2020. The Architecture for REDD+ Transactions (ART) is a global initiative that seeks to incentivise the reducing of emissions from deforestation and forest degradation (REDD), as well as restore forests and protect intact forests (SDG Target 17.1).

**Table 11:** Total Government Revenue as a Proportion of GDP, By Source

| | 2019 | 2020 | 2021 | 2022 | Budget 2023 |
|---|---|---|---|---|---|
| Total Central Government Revenue (G$M) | 240,595 | 227,742 | 267,040 | 429,479 | 578,554 |
| Tax Revenue | 225,993 | 218,330 | 255,086 | 292,337 | 320,110 |
| Non-Tax Revenue | 14,592 | 9,409 | 11,541 | 9,775 | 15,200 |
| Natural Resource Fund Withdrawals | - | - | - | 126,482 | 208,944 |
| Guyana REDD+ Investment Fund (GRIF) inflows | - | - | 406 | 866 | 3,000 |
| Sale of Carbon Credits | - | - | - | - | 31,275 |
| Capital Revenue | 10 | 2 | 8 | 19 | 25 |
| Nominal GDP (G$M) | 1,078,729 | 1,140,757 | 1,676,624 | 3,097,293 | 3,670,100 |
| Non-Oil Nominal GDP (G$M) | 1,060,026 | 960,372 | 1,128,460 | 1,322,789 | 1,450,904 |

| | 2019 | 2020 | 2021 | 2022 | Budget 2023 |
|---|---|---|---|---|---|
| Total Central Government Revenue (G$M) as a % of GDP | 22.3% | 20.0% | 15.9% | 13.9% | 15.8% |
| Tax Revenue as a % of GDP | 20.9% | 19.1% | 15.2% | 9.4% | 8.7% |
| Non-Tax Revenue as a % of GDP | 1.4% | 0.8% | 0.7% | 0.3% | 0.4% |
| Natural Resource Fund Withdrawals as a % of GDP | 0.0% | 0.0% | 0.0% | 4.1% | 5.7% |
| Guyana REDD+ Investment Fund (GRIF) inflows as a % of GDP | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% |
| Sale of Carbon Credits | 0.0% | 0.0% | 0.0% | 0.0% | 0.9% |
| Capital Revenue as a % of GDP | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

| | 2019 | 2020 | 2021 | 2022 | Budget 2023 |
|---|---|---|---|---|---|
| Total Central Government Revenue (G$M) as a % of Non-Oil GDP | 22.7% | 23.7% | 23.7% | 32.5% | 39.9% |
| Tax Revenue as a % of Non-Oil GDP | 21.3% | 22.7% | 22.6% | 22.1% | 22.1% |
| Non-Tax Revenue as a % of Non-Oil GDP | 1.4% | 1.0% | 1.0% | 0.7% | 1.0% |
| Natural Resource Fund Withdrawals as a % of Non-Oil GDP | 0.0% | 0.0% | 0.0% | 9.6% | 14.4% |
| Guyana REDD+ Investment Fund (GRIF) inflows as a % of Non-Oil GDP | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% |
| Sale of Carbon Credits | 0.0% | 0.0% | 0.0% | 0.0% | 2.2% |
| Capital Revenue as a % of Non-Oil GDP | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

*Sources: Bureau of Statistics and Ministry of Finance*

There was no introduction of any new tax measure to impose further tax obligations on taxpayers since 2018. Over the last ten (10) years, an average of approximately 67 percent of the National Budget was financed exclusively by tax revenue. Approximately 88 percent of the total central government revenue in 2015 was derived from taxes, this grew to about 91 percent in 2018 and declined to 68 percent at the end of 2022. This is testimony to the fact in recent years there has been no increase in tax burdens on the taxpaying public even with higher levels of expenditure in National Budgets. The improved contribution of taxes collected to overall government revenue was as a result of the efficiency and effectiveness of tax administration efforts and paradigm shift towards resource utilisation with risk management and promoting voluntary compliance. With the emergence of the oil and gas sector and its significant contribution to GDP, the relativity of total Central Government Revenue to GDP has declined over the last four years as seen in Table 11 (SDG Target 17.1).

During the period 2019 to present, the Guyana Revenue Authority (GRA) welcomed independent objective assessment of its operations by international agencies such as IMF -TADAT and the World Bank to assess the effectiveness and efficiency of its tax administration. In 2020, a group of assessors under the Public Expenditure and Financial Accountability (PEFA) Programme assessed the GRA's tax administration and efficiency efforts on seven (7) specific indicators, ranging from revenue collections to tax service and delivery. While these studies indicated significant improvement in Tax Administration, areas for further improvements were identified. This was given active consideration in drafting strategic and tactical policies to buttress desired operational outcomes (SDG Target 17.1).

The GRA, introduced contemporary software solutions such as ASCUYDA WORLD; a Customs centric software which makes the processing of import and export declaration a seamless procedure in trade facilitation, whilst optimising revenue collections. Similarly, a comprehensive study was initiated to assess the processes from registration and filing to the remittance of taxes for Internal Revenue, with the intent to implement a modern taxation software and to expunge archaic and ineffectual manual driven processes, with risk management as its focus. The other, a nationally developed software, has facilitated all large taxpayers in Guyana filing returns electronically and with the option to remit taxes electronically as well. Additionally, Guyana has introduced E-services which allows for all taxpayers to file their tax return and access their personal tax account to manage and monitor their tax affairs. In addition, License Brokers can now, on behalf of their principals, lodge trade (import and export) declarations from the comfort of their homes or offices (SDG Target 17.1).

As a result of Guyana becoming an oil producing nation, an Oil and Gas Unit was established to effectuate GRA's mandate as the key regulator for tax compliance in the oil and gas sector. Technical training and capacity building were solicited and received from several international agencies to enhance the skillset of the Authority, including the establishment of a Cost Audit Unit tasked with the auditing of cost claims in the oil and gas sector. Further, to better serve taxpayers in regional locations, the GRA expanded both the range and depth of services in the Regional Branches as well as commissioned new Branches in hinterland areas such as Bartica and Mabaruma (SDG Target 17.1).

Guyana continues to finance budgetary commitments to meet needs of its citizens without any additional tax burden to the taxpaying public, on account of the fact that the revenue to GDP ratio is currently 1:6.6 or 15.1 percent of GDP and current policy on overtaxing the economy, is that it must be avoided. Moreover, in response to the COVID-19 pandemic and other destabilising world events, Guyana instituted measures to assuage the impacts of high prices and imported inflation as well as stimulate post COVID-19 recovery (SDG Target 17.1).

## Additional Financial Resources

Guyana's Programme on Low Carbon Development and Carbon Finance has sought to create a model for other forest countries that have maintained their forest, to benefit from payments for services that their forests provide (forest carbon, biodiversity, and the range of ecosystem services). In 2009, Guyana and Norway started a partnership to create the building blocks for a global market-based mechanism for REDD+. Now that Guyana has

moved to the second phase of its work on forest climate finance, through a jurisdictional approach utilising voluntary markets, other high forest cover and low deforestation (HFLD) jurisdictions are also seeking to replicate this model. Payments for Guyana's ART Trees Credits will create part of the funding stream for Guyana's new ecosystem services economy – a global model for how low carbon activity can become more valuable than high carbon activity, creating good jobs, better livelihoods and economic opportunity for local communities and all Guyana's people. In fact, about 30 countries and subnational jurisdictions can be considered HFLD, and all are developing economies. One economic instrument, the carbon market, offers a way to reward forest stewardship by putting a price on the carbon value of standing forests. Incentives to set up agroforestry, sustainable agriculture, ecosystem services, and continued forest conservation can be part of the climate and economic solution for heavily forested countries. A number of other countries are exploring various ways, similar to Guyana, to engage in a market-based mechanism for forest carbon services and are at various stages of advancement (SDG Target 17.3).

## Debt Sustainability

Guyana's primary debt management objective is to ensure that the country's financing needs, and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk. The graduation of Guyana's economy from lower middle-income to upper middle-income status has occasioned a decline in access to the concessional financing. This has necessitated a heightened focus on effective debt management to ensure the financing of Guyana's development initiatives in a manner which simultaneously ensures long term sustainability (SDG Target 17.4).

Despite the income classification, Guyana would draw from past experiences and avoid the debt trap, the government will persevere with the current strategy of maximizing concessional borrowing, which is characterised by low borrowing costs and long maturities. However, as the country progresses further along the development continuum, concessional windows are likely to diminish further, leading to higher borrowing costs and shorter maturities over time. Consequently, the Government intends to supplement traditional but increasingly scarce concessional financing with the increased use of domestic sources, as well as sustainable withdrawals from the country's Natural Resources Fund (SDG Target 17.4).

The International Monetary Fund (IMF), through its most recent Article IV Consultation in 2022, found Guyana to be only at moderate risk of debt distress and enjoys considerable space to absorb macroeconomic shocks without debt sustainability being compromised. With the continued practice of prudent debt management, Guyana enjoys strong debt sustainability fundamentals, even as expanded investments in public infrastructure, social services, and other initiatives are geared at ensuring improved standards of living for all Guyanese (SDG Target 17.4).

The outlook for public debt in Guyana for 2023 and beyond is promising. This outlook is underpinned by strong recent performances and robust growth projections for, the domestic economy, along with impending initiatives geared at improving debt management (SDG Target 17.4).

## Information and Communications Technology (ICT)

Guyana liberalised its telecommunications sector in October 2020 in an effort to increase access and reduce the price of data and bandwidth.

Efforts to expand e-government and increase internet literacy have resulted in Guyana's E-Government Development Index increasing by over 40 percent in six (6) years, from 0.3651 in 2016 to 0.5233 in 2022. Over 40 government services are currently available online. These include mining licensing and renewals, visa applications, income tax processing, and many more. Additionally, over 2,500 persons were trained in digital literacy in the years 2021-2022, while Guyana's cybersecurity awareness activities and training continue with over 1, 000 persons benefitting from cybersecurity training at that time (SDG Target 17.8).

At the end of 2022, over 600 schools were

connected to internet of which 56 were hinterland and/or riverain schools. Further, the creation of ICT hubs and internet hotspots continue. To date, 98 hubs and over 600 WiFiGY hotspots are in place to allow for community connectivity. Over 80 hinterland communities were provided with free Internet Protocol (IP) phones - approximately 34,000 residents of those communities are now benefiting from the ability to make free phone calls to any landline or cellular number. Internet service is also being provided to 171 hinterland and remote communities with over 60,000 residents benefitting from these services (SDG Target 17.8).

Collectively, the National Data Management Authority (NDMA), National Telecommunications Agency (NTA) and the Public Utilities Commission (PUC) each have specific complementary roles in the implementation and monitoring architecture of telecommunications in Guyana. NDMA is on a mission to transform the delivery of government services using the internet and other ICTs. Bridging the digital divide and delivering public service in an effective manner by providing ICT services to government agencies is a priority.

The PUC is responsible for the economic regulation of the telecommunications service providers. Its main functions include the responsibility for fair and competitive pricing in the sector and consumer protection; interconnection and access and monitoring to ensure effective compliance with the licenses issues to operators; and the monitoring the quality-of-service performance indicators and reporting on same. The Commission also holds the responsibility for advising the Minister on policies relating to the sector which includes, but not limited to, interconnection and access, regulation of prices, competition and consumer protection.

Today, mobile technology offered includes 2G, 3G and 4G LTE with over 700,000 subscriptions, while fixed broadband via digital subscribers' line has approximately 124,000 subscriptions. When compared to 2019 this reflects an expansion on 637,130 mobile subscriptions and 73,899 fixed broadband subscriptions. As a result of the expansion in the private sector, business process outsourcing has expanded due to improved connectivity and as of April 2023, the sector employed 4,680 persons of which 1,168 were men and 3,512 were women (SDG Target 17.8).

## National Statistical Capacity

The Bureau of Statistics is the central Statistical Agency in Guyana as well as the pillar of the National Statistical System. This agency is governed by The Statistics Act, Chapter 19:09 which was incorporated into the Laws of Guyana in 1965 (Act 14 of 1965) and the amended Bureau of Statistics Act 1991 (Act No. 25 of 1991) which came into operation on 1st October 1990 (SDG Target 17.18).

Guyana has undertaken to assess the degree to which the national statistical legislation complies with the Fundamental Principles of Official Statistics. The United Nations Fundamental Principles of Official Statistics (UNFPOS) was adopted by the Statistical Commission in 1994 and endorsed by the General Assembly in 2014 and to date there are ten (10) fundamental principles.

As noted, prior, the principal legislation governing official statistics is the Statistics Act, Chapter 19:09 which was incorporated into the Laws of Guyana in 1965 (Act 14 of 1965). It is supported and amended by the Bureau of Statistics Act 1991 (Act No. 25 of 1991). It is noted that while both Acts were effective prior to the adoption and endorsement of the UNFPOS by the General Assembly, Guyana's statistical legislation are generally in compliance with the fundamental principles with few exceptions. The status regarding each principle is explained below (SDG Target 17.18):

Principle 1: Publication of Statistics – Relevance, Impartiality and Equal Access. Guyana is compliant with principle 1 evidenced by the Statistics Act, Chapter 19:09 3 (1)(b) and 6(2) which states that the function of the Bureau of Statistics is "to collect, compile, analyse, abstract and publish statistical information relating to the social, agricultural, mining, commercial, industrial and general activities and conditions of the inhabitants of Guyana" and that "The Chief Statistician shall cause the statistics collected under this Act to be compiled, tabulated and analysed and, subject to this Act, may cause such statistics or abstracts thereof to be published, with or without comments thereon in such a manner as he may determine".

Principle 2: Professional Standard, Scientific Principles and Professional Ethics. While the Principal Act does not state the requirement to adhere to specific standards, principles or

ethics, the Bureau of Statistics strives to abide by international best practices and works with regional counterparts in ensuring that the methods of data collection, such as censuses and surveys, are prepared and executed in accordance with applicable standards, principles, and ethics.

Principle 3: Accountability and transparency: While the Principal Act does not state the requirement to publish relevant information regarding the sources, methods and procedures that are employed for obtaining statistics, the Bureau of Statistics does this as part of its adherence to international best practices.

Principle 4: Prevention of misuse: While the Principal Act does not specify that the Statistical Agency can identify and comment on the misuse of statistics should these be erroneously used or represented, the Bureau of Statistics endeavours to publicly correct any misinterpretations.

Principle 5 - Sources of Official Statistics – The Statistics Act grants the Bureau of Statistics and the Chief Statistician the authority to collect data from all types of sources, whether through statistical surveys or administrative records. This principle is established by The Statistics Act, Chapter 19:09 3(1)(c) and 6(1) which specifies that it is the function of the Bureau of Statistics "to collaborate with departments of the Government in the collection, compilation, analysis and publication of statistical records of administration;" and the Chief Statistician shall, collect, whether in conjunction with any census or not, statistics relating to all or any of the matters set out in the First Schedule either in Guyana generally or in any part thereof". In this regard, the legislation is compliant with Principle 5.

Principal 6 – Confidentiality. The Statistics Act Chapter 19:03 (16)(1) requires every person employed in the execution of any duty under the Statistics Act to make an Oath of Secrecy. This oath makes provision for the non-disclosure and protection against the release of data that could lead to the identification of an individual or entity. In this regard, the Act is compliant with Principal 6.

Principle 7 – Legislation: The Statistics Act which incorporates the mandate of the Bureau is enshrined in the Laws of Guyana and is accessible to the public. All regulations are made public and appropriately published in the official gazette. All measures for the collection and dissemination of data and statistics are also public. Accordingly, the Act is compliant with Principle 7.

Principle 8 – National Coordination: Section 3(1)(c) of the Statistics Act authorizes collaboration with departments of government in the collection, compilation, analysis, and publication of statistical records of administration. However, the current legislation requires review which will allow harmonization with legislations governing other agencies that were enacted since the effective date of the principal legislation. In this regard, the Act is compliant with Principle 8.

Principle 9 – Use of International Standards: While the Statistics Act does not specify adherence to international standards, The Bureau of Statistics uses international standards, concepts, definition, classification and methods for the compilation, analysis and dissemination of official statistics.

Principle 10 – International cooperation: While the Principal Act does not require international cooperation, the Bureau of Statistics works closely with regional and international bodies and counterparts to develop the methods and systems for data collection, compilation, and analysis. The Bureau also shares information with international organizations including the United Nations (UN) and CARICOM.

The National Strategy for the Development of Statistics (NSDS) is under implementation and activities earmarked for 2023 have been fully funded by the Government of Guyana. Initially, 2020 was targeted as the year for implementation of the NSDS, however, the COVID-19 pandemic and other challenges, resulted in delays which were further extended by the commencement of Guyana's National Population and Housing Census in 2022. Later this year the Secretariat for the National Statistical System (NSS) will be established laying the foundation for the building of an integrated and streamlined National Statistical System (SDG Target 17.18).

Guyana executes a National Population and Housing Census every 10 years in keeping with UN recommendations. Guyana's participation in the 2020 World Population and Housing Census Programme saw the execution of the 8th post world war Population and Housing Census in

2022, which is 10 years since the last Census done in 2012 (SDG Target 17.19).

The 2022 census will be a rich source of primary data for the formulation, implementation and monitoring of development policies and programmes. It will supply disaggregated information necessary to measure the progress of the SDGs. Consequently, the 2022 Census was planned and executed based on the following objectives:

Update baseline data for the monitoring and evaluation of changes in the population structure and characteristics.

Provide up-to-date data for the continuous monitoring of the Sustainable Development Goals (SDGs).

Produce an updated sample frame for the execution of future intercensal surveys.

Provide reliable and accurate demographic, social and economic data that can be used as a benchmark to inform development planning.

With these objectives as guiding principles, 15th September 2022 was designated Census Day in accordance with the Statistics Act. The census was conducted in all of the ten (10) Administrative Regions of Guyana. Approximately 3,000 temporary staff were recruited throughout the country, with the primary objective of visiting and interviewing each household located within the geographic boundaries of Guyana. Technological advancement in data capturing played a pivotal role in the execution of the 2022 census. This was the first Census to use the Computer Assisted Personal Interview (CAPI) methodology for data capturing. This methodology was utilised as Guyana works towards the continuous advancement of data collection in adherence to the dimensions of data quality. The CAPI instrument also allowed the capturing of geospatial data to inform future plans and provide more in-depth data for analysis at community level.

The 2022 Census was not without its challenges, including:

Attrition of temporary personnel before, during and after the training and the enumeration process commenced.

Difficult terrain and adverse weather conditions in hinterland regions; and

Difficulty accessing households situated in coastal regions.

Experiences from the fields and preliminary data indicate significant changes in the structure and characteristics of the population, with notable observances in the influx of foreign nationals compared to the 2012 Census. Further, working households proved to be more difficult to enumerate due to time and availability. The granular level data gathered by the 2022 Census will provide a wealth of data that will play a pivotal role in the monitoring of SDG indicators to assess the country's progress towards achieving the 2030 Agenda as well as provide guidance on the types of interventions that may be required to achieve the SDG.

## Challenges, Emerging Issues and Addressing the Way Forward

Strengthening the means of implementation of the SDGs lies at the heart of whether or not we will realise Agenda 2030 as a community of nations. Failure over the decades to achieve flagship annual commitments on 0.7 percent ODA and US$100 billion for climate finance do not augur well for demonstrable actions (SDG 17.1 and 17.2). Leaving no one behind starts here at home in our High-Level UN Family must translate to leaving no country behind.

The external environment remains unhelpful, particularly for developing and vulnerable countries. Developing countries like Guyana have struggled with the perennial triple threat of food security, energy security and climate security and overall susceptibility to global shocks. On top of these the COVID-19 pandemic has served to expose areas where there is need to strengthen resilience.

Accelerated efforts to advance financial and technical resources to ensure climate security is critical. Vulnerability to climate change is particularly heightened for Guyana given our unique geography and existing infrastructure

gaps. Further, Guyana's graduation to upper middle income developing country status has severely constrained access to envelopes of concessional borrowing. The recent proposal of the Bridgetown Initiative once fully adopted will result in mobilising finance for climate vulnerable developing states and widening access to concessional finance.

For developing countries, the ability to fund programmes towards achieving the SDG targets is contingent on accessing affordable financing. A notable example in Guyana would be SDG 17.6 and 17.8 which imply access to internet. The cost of achieving this must consider that delivery of these services over Guyana's highly variable topography is substantial and competing with the need to finance to urgent and more existential needs highlighted earlier.

Partnerships for global development must be strengthened and we must take collective serious and accelerated action to ensure no country is left behind in achieving Agenda 2030.



# 8. NEXT STEPS AND MEDIUM-TERM OUTLOOK

This second VNR process has once again emphasised the need for (i) consistent and broad-based collaboration, (ii) robust data development plans and systems, (iii) effective monitoring of results and (iv) predictable and affordable finance in the face of shocks. The eight priority actions identified in Guyana's first VNR, while important, would on their own, be inadequate in an environment that requires accelerated actions and resilience.

Going forward national priorities will be directed towards:

- Continued substantial investments in infrastructure and public services needed to advance and accelerate within the limits of existing fiscal resources while closely aligning with the Targets of Agenda 2030. This level and scale of investment will be expensive, especially given Guyana's geography and population distribution which contribute to the complexity and cost of reaching remote communities.

- Government's deliberate and consistent advocacy for increased volume of affordable financing for Guyana and other developing countries to meet their most pressing development needs, foremost amongst which would be initiatives aligned to meet the Agenda 2030.

- Protecting the economic system from volatility and building resilience. External shocks to the national system whether they are as a result of climate change, pandemic or global economic shifts have consistently demonstrated a need for resilience building in Guyana. Economic resilience would, importantly, require predictability and affordability in finance streams so as to not compromise Guyana's debt sustainability.

- Exploring and implementing more accessible ways of communicating such Goal-specific VNRs feature in the coming months and years ahead. This VNR has expanded the scale of consultations, but further strengthening is planned. Awareness and ownership of global commitments at both the institutional and the community level is needed.

Volatility in resource availability prevents effective planning and severely limits the scale and timeliness of investments that can be undertaken by any country, community or individual and ultimately compromise achieving development targets including those associated with the SDGs. The immediate collective next step must be to remove this uncertainty with meaningful commitments that serve the greater good that is Agenda 2030.

# 9. CONCLUSION

Recent global conditions have contributed to unforeseen challenges which threatened the pace of the achievement of the 2030 Agenda for sustainable development. The COVID-19 pandemic and the ever-evolving impacts of climate change combined with sluggish availability of concessional global financing for needed actions present a somewhat daunting outlook at the global level. Concerted action now and decisive global leadership are needed to achieve the 2030 Agenda. It is possible.

For Guyana, undertaking this VNR with a detailed focus on Goals 6, 7, 9, 11 and 17 has highlighted a stronger collective awareness of the actions required to achieve these Goals by 2030. Notwithstanding the country's efforts to mobilise new sources of domestic revenue, this has happened against a backdrop of a huge infrastructure gap, expanding social needs, already stretched human capital resource, the middle-income transition trap, along with the additional burden of minimising the effects of resource curse. Indeed, it is not an easy task ahead. Despite these challenges, Guyana remains committed to leaving no one behind on our path to achieving national development goals inclusive of the SDGs.

Going forward we will continue to track progress towards Agenda 2030 annually. We are cognisant of the gains made thus far but acutely aware of the required actions need to accelerate progress in the seven years ahead. The time is relatively short, but the needs of citizens are pressing, and Guyana remains resolute in its resolve to leaving no one behind. Guyana will build on its partnerships with all of its people across the multiethnic and demographic spectrum that is uniquely Guyana. Guyana will build on its regional, bilateral, and multilateral partnerships and count on the UN family of nations to go forward together in united resolve in achieving sustainable development for our planet.

Global solidarity is needed on key issues of expanded financing, recognition of climate vulnerabilities and food and energy security. We must stand together, to collectively champion these issues with one voice to ensure sustainable development. Our People and Planet deserve no less.

# ANNEXES

## Overview

Guyana is presenting its Second **VNR** on its progress towards achieving the SDGs, in keeping with the United Nations 2030 Agenda for Sustainable Development at the 2023 United Nations High-level Political Forum (HLPF). Guyana's Second VNR presents an in-depth focus on the five (5) thematic Goals being reviewed for HLPF 2023. The five (5) Goals being reviewed are:

**Goal 6** – Ensure availability and sustainable management of water and sanitation for all

**Goal 7** – Ensure access to affordable, reliable, sustainable and modern energy for all

**Goal 9** – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

**Goal 11** – Make cities and human settlements inclusive, safe, resilient and sustainable

**Goal 17** – Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

In 2019, Guyana presented its first Voluntary National Review of the 17 SDGs. In 2019, the Global Indicator Framework covered 244 indicators. Since then, the UN has increased the number of indicators to 248 of which 13 indicators are repeated under two (2) or three (3) different targets [28], compared to nine (9) indicators which repeated in 2019.

In fulfilment of Guyana's commitment to report on its progress, a tabular and a graphical presentation of the Goals, targets and indicators under review are highlighted in this Statistical Annex for the period 2015 to 2022. The reviewed Goals cover 50 targets and a total of 68 indicators. The graphs below present the availability of data to report on the indicators of each Goal, as well as the overall availability of data for all indicators. Data is currently available for 32 percent of the Global Indicators – UN SDG indicators, while 27 percent of indicators have no data available or are not applicable to Guyana. Guyana has used national/proxy indicators to highlight progress in achieving the targets, and these account for 41 percent of indicators and supplement the UN SDG Indicators.

**DATA AVAILABILITY FOR INDICATORS UNDER GOALS 6, 7, 9, 11 & 17: GUYANA 2023**

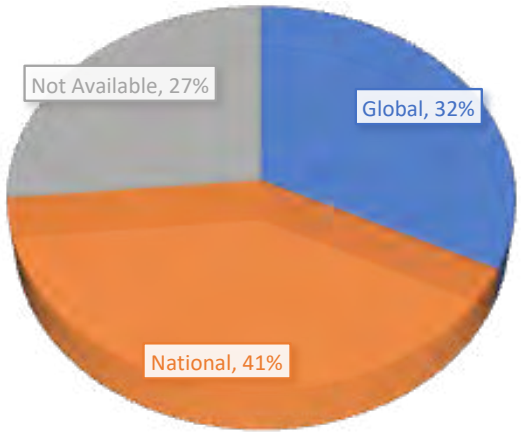



**Figure 1:** Data Availability of UN SDG Indicators: Guyana 2023

28 https://unstats.un.org/sdgs/indicators/indicators-list/#:~:text=The%20global%20indicator%20framework%20includes,of%20SDG%20indicators%20is%20248.

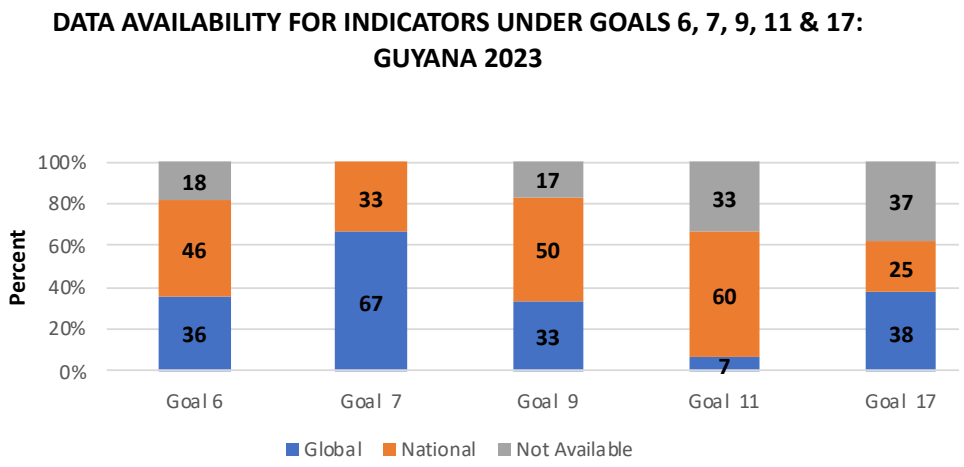



**Figure 2:** Data Availability for UN SDG Indicators by Goal: Guyana 2023

## Guyana's Progress on Reporting on the SDGs since 2019

Guyana has made significant progress in monitoring and reporting on the sustainable Development Goals, specifically the five goals under review. A comparative analysis of the five goals for the reporting periods 2015-2018 (reported in 2019) and 2019-2022 (reported in 2023) was completed to show the progress made since the 2019 VNR presentation. For the reporting period 2019-2022, data was available to monitor 32 percent of the Global Indicators when compared to 2015-2018 which accounted for only 15 percent of these indicators. Due to the unavailability of data to comprehensively monitor the Global Indicators, Guyana utilised alternative metrics that complements the Global Indicators to measure progress towards achieving the relevant Goals and Targets. Consequently, national and / or proxy data accounted for 20 percent of indicators for the period 2015-2018, which increased to 41 percent for 2019-2022 period (See Figures 3 and 4). While strides are being made towards monitoring the indicators, Guyana is still faced with numerous challenges as this is reflected by the unavailability of data for 27 percent of the indictors for the period 2019-2022, compared with 65 percent for the period 2015 to 2018.

The progress towards achieving the Targets of the reviewed Goals is further demonstrated in the graphical illustration of Figures 5 and 6. In Figure 5, it can be observed that for three (3) – Goals (6, 7 and 11) out of the five (5) Goals there was no data available to monitor any of the Global Indicators. Guyana is pleased to report for the period 2019-2022, data is available to monitor 37 percent of the Global Indicators for the Goals under review.

Notably, for SDG 7 the availability of data for Global Indicators rose considerably from 0 percent in 2019 to 67 percent in 2023, while the proportion of indicators with no data available decreased from 33 percent to 0 percent. In addition, progress was also made in reporting on Goal 17, as data availability for Global Indicators rose from 32 percent in 2019 to 38 percent in 2023, while the proportion of indicators with no data available decreased by almost half from 60 percent in 2019 to 37 percent in 2023 (See Figures 5 and 6 below).

**Figure 3:**

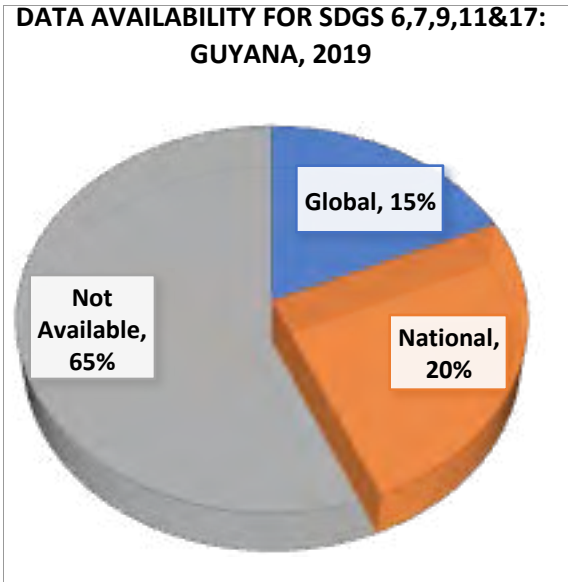



**Figure 4:**

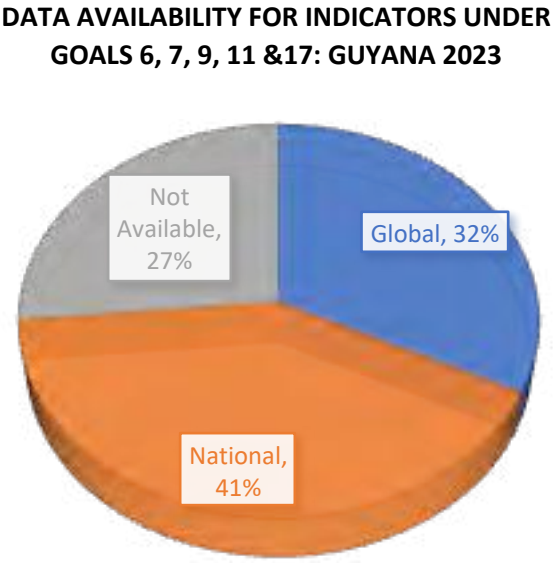



**Figure 5:**

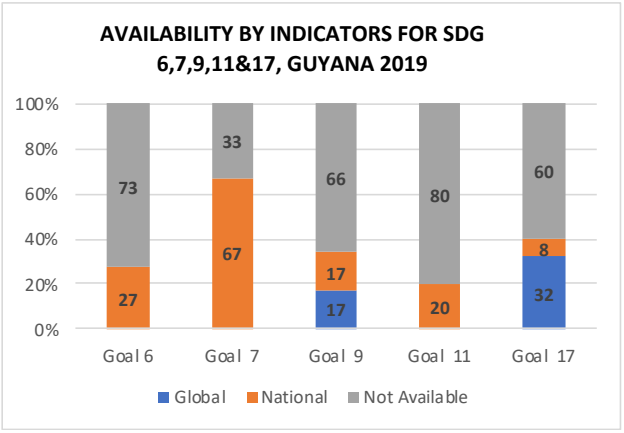
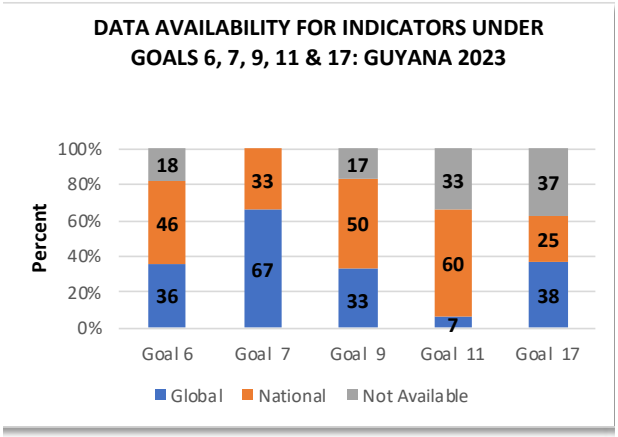



**Figure 6:**




## List of indicators with no data or are not applicable to Guyana.

Of the five (5) Goals under review, the following indicators per thematic area has no data available for the global indicators. Currently, no data is available to supplement as a national indicator/proxy.

Below are the indicators listed by goal:

### Goal 6: Ensure availability and sustainable management of water and sanitation for all

**Target 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

**SDG Indicator 6.3.1:** Proportion of domestic and industrial wastewater flows safely treated

### Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

**Target 11.3:** By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

**SDG Indicator 11.3.1:** Ratio of land consumption rate to population growth rate

**Target 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

**SDG Indicator 11.5.3:** (a) Damage to critical infrastructure and (b) number of disruptions to basic services, attributed to disasters

**Target 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

**SDG Indicator 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

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

**Target 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 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries

**SDG Indicator 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 nation

**Target 17.3:** Mobilize additional financial resources for developing countries from multiple sources

**SDG Indicator 17.3.1:** Additional financial resources mobilized for developing countries from multiple sources

**Target 17.5:** Adopt and implement investment promotion regimes for least developed countries

**SDG Indicator 17.5.1:** Number of countries that adopt and implement investment promotion regimes for least developed countries

**Target 17.8:** Fully operationalize 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

**SDG Indicator 17.8.1:** Proportion of individuals using the Internet

**Target 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

**SDG Indicator 17.9.1:** Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries

**Target 17.15:** Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

**SDG Indicator 17.15.1:** Extent of use of country-owned results frameworks and planning tools by providers of development cooperation

**Target 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

**SDG Indicator 17.16.1:** Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals

**Target 17.17:** Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

**SDG Indicator 17.17.1:** Amount in United States dollars committed to public-private partnerships for infrastructure

# Annex - A:
# TABULAR PRESENTATION

The tabular presentation includes the five (5) thematic Goals of HLPF 2023 and their respective targets and indicators. The Global Indicators measuring Guyana's progress towards achieving the 2030 Agenda are included, as well as the national proxies which supplement the Global Indicators. Indicators for which no data is available are denoted by N/A.

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| Goal 6. Ensure availability and sustainable management of water and sanitation for all | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| UN SDG Indicator | National Indicator | Unit of Measure | Review Period | | | | | | | |
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (Prelim.) |
| **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 population with access to reliable supply of potable water | Percent | 96.4 | 96.7 | 96.7 | 96.8 | 97.0 | 97.0 | 97.0 | 97.0 |
| | Proportion of hinterland population with access to reliable supply of potable water | Percent | N/A | N/A | N/A | 31.4 | 33.8 | 46.0 | 60.0 | 75.0 |
| | Proportion of iron tests carried in the distribution that confirm to WHO guidelines | Percent | N/A | N/A | N/A | N/A | 46.0 | 47.0 | 54.0 | 49.0 |
| | Proportion of total coli form tests carried in the distribution that confirm to WHO guidelines | Percent | N/A | N/A | N/A | N/A | 90.0 | 90.0 | 93.0 | 93.0 |
| | Proportion of coli tests carried in the distribution that confirm to WHO guidelines | Percent | N/A | N/A | N/A | N/A | 98.0 | 95.0 | 93.0 | 91.0 |
| | Proportion of turbidity, pH, apparent colour carried out in the distribution that confirm to WHO guidelines | Percent | N/A | N/A | N/A | N/A | 86.0 | 77.0 | 77.0 | 82.0 |
| | Percent of non-revenue water | Percent | N/A | N/A | N/A | N/A | N/A | 70.0 | 68.6 | 65.2 |
| | No. of meters installed | Number | 7,587 | 4,343 | 9,016 | 11,437 | 5,177 | 2,974 | 15,788 | 20,200 |
| | Proportion of metered customers | Percent | 46.0 | 47.0 | 49.0 | 50.0 | 50.0 | 51.0 | 53.5 | 59.0 |
| | | | | | | | | | | |
| 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 (a) safely managed sanitation services and (b) a hand-washing facility with soap and water | Proportion of population with access to improved sanitation facility | Percent | 85.3 | 85.8 | 85.8 | 85.8 | 85.8 | 86.0 | 86.0 | 86.2 |
| | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 domestic and industrial wastewater flows safely treated | | Percent | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 6.3.2 Proportion of bodies of water with good ambient water quality | | Percent | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 (United States dollars per cubic meter) | | Value (US$) | 2.13 | 2.27 | 2.26 | 2.41 | 2.58 | N/A | N/A | N/A |
| | Proportion of metered customers | Percent | 46.0 | 47.0 | 49.0 | 50.0 | 50.0 | 51.0 | 53.5 | 59.0 |
| 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources | | Percent | N/A | N/A | N/A | N/A | 3.3 | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 (0–100) | | Percent | N/A | N/A | 16 | N/A | N/A | 19 | N/A | N/A |
| 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation | Existence of transboundary arrangements/ initiatives to facilitate water cooperation and management | Amazon Cooperation Act and Amazon Coorperation Strategic Action Program | | | | | | | | |
| | | | | | | | | | | |
| 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 | Number of major aquifer systems | Number | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | Value G$('000) | 752.363 | 316.690 | 1,430.000 | 2,535.211 | 2,804.076 | 1,577.832 | 0.000 | 106.084 |
| | | | | | | | | | | |
| 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 | N/A | N/A | N/A | 0.15 | 0.25 | 0.0 | 0.0 | 0.0 |
| Source: Guyana Water Incorporated: SDG 6.1.1, SDG 6.2.1, Food and Agriculture Organization: SDG 6.4.2, SDG 6.5.1, Hydromet: SDG 6.5.2, SDG 6.6.1, Ministry of Finance: SDG 6.a.1, Ministry of Local Government and Regional Development: SDG 6.b.1<br><br>Note: National Indicators reported for SDG 6.1.1 in the 2019 VNR have been upgraded to reflect specific WHO guidelines.<br>SDG 6.4.2,6.5.1: Data sourced from FAO report Guyana Country Profile, February 2023 | | | | | | | | | | |

| Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| UN SDG Indicator | National Indicator | Unit of Measure | Review Period | | | | | | | |
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (Prelim.) |
| 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services | | | | | | | | | | |
| 7.1.1 Proportion of population with access to electricity | | Percent | 89.8 | 90.1 | 90.4 | 90.8 | 91.1 | 91.2 | 91.4 | 91.8 |
| 7.1.2 Proportion of population with primary reliance on clean fuels and technology | Percentage of households using clean fuels and technology (LPG, electricity, biodigesters, energy efficient and solar cookstoves) for cooking | Percent | 71.9 | 74.3 | 76.7 | 79.1 | 81.5 | 83.9 | 86.2 | 88.6 |
| | | | | | | | | | | |
| 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 | | Percent | 25.0 | 21.7 | 21.8 | 16.6 | 11.4 | 12.2 | 12.1 | 10.6 |
| | Renewable energy share in power generation | Percent | 6.6 | 7.4 | 7.4 | 3.3 | 3.6 | 3.2 | 2.9 | 2.8 |
| | | | | | | | | | | |
| 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 | | Megajoules per dollar GDP in constant 2011 PPP | 4 megajoules per dollar GDP in constant 2011 PPP | 4.14 megajoules per dollar GDP in constant 2011 PPP | 3.95 megajoules per dollar GDP in constant 2011 PPP | 3.86 megajoules per dollar GDP in constant 2011 PPP | 3.98 megajoules per dollar GDP in constant 2011 PPP | 2.65 megajoules per dollar GDP in constant 2011 PPP | N/A | N/A |
| | | | | | | | | | | |
| 7a 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 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems | | Value G$('000) | 692.068 | 477.822 | 2,485.816 | 2,341.065 | 3,630.540 | 1,878.452 | 2,086.670 | 1,058.011 |
| | | | | | | | | | | |
| 7b 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 Installed renewable energy-generating capacity in developing countries (in watts per capita) | GPL's Client Installed renewable energy-generating capacity | Watt per capita | 0.04 | 0.39 | 2.79 | 5.43 | 7.51 | 8.01 | 8.79 | 9.68 |
| | 7.b.i Km of Medium Voltage Network Installed and Upgraded | Km | 116.06 | 50.68 | 58.41 | 82.41 | 142.05 | 164.33 | 31.17 | 66.37 |
| | 7.b.i Km of Low Voltage Network Installed and Upgraded | Km | 697.05 | 59.54 | 44.18 | 264.29 | 209.05 | 435.34 | 104.81 | 37.20 |
| | 7.b.i Km of Service Wire Network Installed and Upgraded | Km | 24.2 | 18.0 | 11.9 | 9.1 | 12.8 | 14.0 | 13.8 | 3.4 |
| | Proportion of installed meters that are AMI-Ready | Percent | 0.39 | 0.64 | 0.93 | 11.15 | 18.97 | 25.87 | 31.61 | 36.86 |
| Source: Guyana Power and Light: SDG 7.1.1, SDG 7.b.1, Guyana Energy Agency: SDG 7.1.1, SDG 7.1.2, SDG 7.2.1, SDG 7.3.1, Ministry of Finance: SDG 7.a.1 (Budget Estimates Vol. 2) | | | | | | | | | | |

| Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **UN SDG Indicator** | **National Indicator** | **Unit of Measure** | **Review Period** | | | | | | | |
| | | | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022 (Prelim.)** |
| 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 | Km of trails upgraded to secondary (hinterland) road | Km | N/A | N/A | N/A | N/A | 94.1 | 625.7 | 364.8 | 603.1 |
| | Average travel time on Linden-Lethem Road measured in hrs | Hours | 10:00 | 14:00 | 13:00 | 12:00 | 10.25 | 10:00 | 10.25 | 10.25 |
| 9.1.2 Passenger and freight volumes, by mode of transport | | Km | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 | 6.6 | 5.3 | 5.2 | 5.1 | 5.6 | 5.5 | 5.5 | 5.1 |
| | Manufacturing value added as a proportion of GDP (Excluding Sugar & Rice) | Percent | 3.3 | 3.0 | 2.9 | 3.0 | 3.3 | 3.2 | 3.7 | 3.4 |
| | Manufacturing per capita | Value (US$) | 370.8 | 306.6 | 304.2 | 309.0 | 349.7 | 318.4 | 335.0 | 348.0 |
| 9.2.2 Manufacturing employment as a proportion of total employment | | Percent | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets | | | | | | | | | | |
| 9.3.1 Proportion of small-scale industries in total industry value added | | Percent | N/A | N/A | N/A | N/A | 60.0 | 73.0 | 57.0 | 60.0 |
| 9.3.2 Proportion of small-scale industries with a loan or line of credit | Value of financing accessed by small-scale industries from the Small Business Bureau | Value G$('000) | 121,238 | 184,067 | 296,746 | 317,746 | 201,653 | 170,180 | 406,056 | 507,351 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| 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 | Annual emissions of carbon dioxide ($CO_2$) measured in tonnes. | Tonnes ('000) | 1,314 | 1,533 | 1,470 | 1,578 | 1,776 | 1,713 | N/A | N/A |
| | | | | | | | | | | |
| 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 | 0.018 | 0.018 | 0.019 | 0.065 | 0.071 | 0.078 | 0.077 | 0.055 |
| 9.5.2 Researchers (in full-time equivalent) per million inhabitants | Researchers (in full-time equivalent) per 100,000 inhabitants (Ministry of Agriculture) | per 100,000 inhabitants | 0.8 | 0.8 | 0.8 | 2.2 | 3.0 | 3.0 | 2.3 | 2.8 |
| | | | | | | | | | | |
| 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 G$ ('000) | 5,878.26 | 10,582.58 | 13,698.89 | 13,750.58 | 8,704.87 | 11,158.25 | 7,737.50 | 12,981.99 |
| | | | | | | | | | | |
| 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 | New value-added products in Guyana Shop | Number | 37 | 32 | 43 | 46 | 116 | 29 | 274 | 214 |
| | | | | | | | | | | |
| 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 2021 | | | | | | | | | | |
| 9.c.1 Proportion of population covered by a mobile network, by technology | Number of mobile subscribers | Number | 553,519 | 559,467 | 616,357 | 622,178 | 637,130 | 652,338 | 698,807 | 745,689 |
| Source: Ministry of Public Works: SDG 9.1.1, Bureau of Statistics: SDG 9.1.2, SDG 9.2.1, SDG 9.2.2, Ministry of Tourism, Industry and Commerce: SDG 9.3.2, Office of the President, Department of Environment and Climate Change: SDG 9.4.1, Ministry of Agriculture: SDG 9.5.1, SDG 9.5.2, SDG 9.b.1, Ministry of Finance: SDG 9.a.1: ( Budget Estimates Vol. 2), Public Utilities Commission: SDG 9.c.1 | | | | | | | | | | |

| Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| UN SDG Indicator | National Indicator | Unit of Measure | Review Period | | | | | | | |
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (Prelim.) |
| 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 | 2.2 | 6.8 | 9.2 | 12.0 |
| | Proportion of informal settlers regularised | Percent | 1.6 | 0.9 | 1.7 | 0.9 | 0.8 | 0.4 | 0.7 | 1.5 |
| | Number of informal settlers regularised | Number | 426 | 221 | 431 | 225 | 197 | 89 | 174 | 359 |
| | | | | | | | | | | |
| 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 | Percentage of motor vessel fleet (passenger and cargo) that is operational | Percent | N/A | N/A | N/A | N/A | N/A | 73.0 | 88.0 | 88.0 |
| | | | | | | | | | | |
| 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 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 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 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11.4.1 Total per capita expenditure on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional, and local/municipal) | Expenditure on cultural heritage | Value G$('000) | 330,530 | 1,005,343 | 847,038 | 1,143,622 | 1,233,793 | 411,661 | 1,403,671 | 1,619,864 |
| | Expenditure on natural heritage | Value G$('000) | 351,414 | 430,187 | 472,779 | 481,073 | 534,427 | 570,195 | 686,750 | 719,520 |
| | | | | | | | | | | |
| 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 directly affected persons attributed to disasters per 100,000 population | Number of deaths attributed to natural hazards (floods, drought, high winds, earthquakes) | Number | 0 | 0 | 0 | 0 | 0 | 0 | 0 | N/A |
| 11.5.2 Direct economic loss attributed to disasters in relation to global gross domestic product (GDP) | Effects (Damages, Losses and Additional Costs) of emergency/ disaster as a percentage of GDP | Percent | N/A | N/A | N/A | N/A | N/A | N/A | 12.0 | N/A |
| 11.5.3 (a) Damage to critical infrastructure and (b) number of disruptions to basic services, attributed to disasters | | Value | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities | Number of Regional Democratic Councils with controlled facilities for solid waste | Number | N/A | N/A | N/A | N/A | N/A | 4 | 1 | 8 |
| | Proportion of urban solid waste collected and adequately disposed for Georgetown | Percent | N/A | 0.7 | 0.7 | 0.8 | N/A | N/A | N/A | N/A |
| 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted) | | µg/m3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 Community green spaces and parks developed | Number | 4 | 4 | 4 | 4 | 3 | 0 | 2 | 3 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space | Existence of Regional budget within the overall budget | Yes/No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | | | | | | | | |
| 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 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 | National - level disaster risk management and / or preparedness plans actively being implemented | Number | N/A | N/A | N/A | N/A | N/A | 1 | 2 | 1 |
| 11.b.2 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies | Number of regional - level disaster risk management and / or preparedness plans activiely being implemented | Number | N/A | N/A | N/A | N/A | N/A | 9 | 9 | 9 |
| | | | | | | | | | | |
| Source: Ministry of Housing and Water: SDG 11.1.1, SDG 11.3.2, SDG 11.7.1, Ministry of Public Works: SDG 11.2.1, Protected Areas Commission: SDG 11.4.1, Civil Defence Commission: SDG 11.5.1, SDG 11.5.2, SDG 11.b.1, SDG 11.b.2, Ministry of Local Government and Regional Development: SDG 11.6.1, Environmental Protection Agency: SDG 11.6.2, Ministry of Finance: SDG 11a.1 | | | | | | | | | | |

| Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| UN SDG Indicator | National Indicator | Unit of Measure | Review Period | | | | | | | |
| | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (Prelim.) |
| 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 | | Percent | 18.4 | 19.2 | 19.9 | 21.8 | 22.3 | 20.0 | 15.9 | 13.9 |
| | Total government revenue as a proportion of Non-Oil GDP | Percent | 18.5 | 19.2 | 20.0 | 22.0 | 22.7 | 23.7 | 32.5 | 39.9 |
| 17.1.2 Proportion of domestic budget funded by domestic taxes | | Percent | 74.4 | 68.5 | 69.3 | 75.3 | 77.5 | 64.8 | 63.0 | 47.5 |
| | | | | | | | | | | |
| 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 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent 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) | | Not Applicable | | | | | | | | |
| | | | | | | | | | | |
| 17.3 Mobilize additional financial resources for developing countries from multiple sources | | | | | | | | | | |
| 17.3.1 Additional financial resources mobilized for developing countries from multiple sources | | Value | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 17.3.2 Volume of remittances (in United States dollars) as a proportion of total GDP | | Percent | 14.3 | 13.2 | 14.3 | 15.8 | 16.0 | 15.5 | 16.8 | 9.3 |
| | | | | | | | | | | |
| 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 | External Debt Service to Exports of Goods and Non-factor services | Percent | 7.63 | 3.37 | 3.77 | 4.96 | 4.37 | 2.75 | 1.75 | 0.73 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | External Debt Service to Non-oil Exports of Goods and Non-factor services | Percent | 7.63 | 3.37 | 3.77 | 4.96 | 4.37 | 4.44 | 4.91 | 5.11 |
| | | | | | | | | | | |
| 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 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 Fixed Internet broadband subscriptions per 100 inhabitants, by speed | Number of fixed internet broadband subscriptions | Number | 51,434 | 55,803 | 57,874 | 70,264 | 73,899 | 79,760 | 100,596 | 123,856 |
| | | | | | | | | | | |
| 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 funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies | | Value US$('000) | N/A | N/A | N/A | N/A | N/A | 5,039 | 121 | 997 |
| | | | | | | | | | | |
| 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology | | | | | | | | | | |
| 17.8.1 Proportion of individuals using the Internet | | Percent | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation | | | | | | | | | | |
| 17.9.1 Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries | | Value (G$M) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 8.3 | 8.9 | 13.5 | N/A | N/A |
| | | | | | | | | | | |
| 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 2021 | | | | | | | | | | |
| 17.11.1 Developing countries' and least developed countries' share of global exports | Guyana's total exports | Value (US$M) | 1,151.26 | 1,434.41 | 1,437.33 | 1,377.14 | 1,567.00 | 2,589.99 | 4,355.91 | 11,299.45 |
| | | | | | | | | | | |
| 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 Weighted average tariffs faced by developing countries, least developed countries and small island developing States | Maximum applied tariffs, average across all products and export markets, including preferences | Percent | 15.5 | 7.8 | 8.5 | 8.2 | 9.5 | 10.3 | N/A | N/A |
| | Average Preferential Tariffs | Percent | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | 10.8 | N/A | N/A |
| | Share of tariff lines that are duty free | Percent | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | N/A | N/A |
| | | | | | | | | | | |
| 17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence | | | | | | | | | | |
| 17.13.1 Macroeconomic Dashboard | National macroeconomic indicators published in Budget Speech and Mid-Year Report to Parliament | Yes/No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | | | | | | | | |
| 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 | Existence of mechanisms in place to enhance policy coherence of sustainable development | Number | N/A | N/A | N/A | N/A | N/A | N/A | LCDS2030 | LCDS2030 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| 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 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 | | | | | | | | | | |
| 17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals | | Number | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 in United States dollars committed to public-private partnerships for infrastructure | | Value (US$) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | |
| 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 Statistical capacity indicator for Sustainable Development Goal monitoring | Indicator currently under review by Inter-Agency and Expert Group (IAEG) | | | | | | | | | |
| 17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics | Existenance of 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 Official Statistics | | | | | | | | |
| 17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding | Fully Funded National statistical plan under implementation, by source of funding | | | | | National Strategy for the Development of Statistics, drafted in 2018 | | | | |
| | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | Annual Budgetary Allocation to the National Statistical Office | Value (G$M) | 326.403 | 477.933 | 624.094 | 786.026 | 790.334 | 663.068 | 704.330 | 2,547.765 |
| 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 per cent birth registration and 80 per cent death registration | Proportion of countries that have conducted at least one population and housing census in the last 10 years; | Population and Housing Census, 2022 | | | | | | | | |
| | Number of births registered | Number | 16,765 | 16,365 | 17,404 | 15,869 | 16,496 | 16,109 | 15,502 | 14,843 |
| | Number of deaths registered | Number | 4,922 | 5,109 | 4,909 | 4,558 | 5,560 | 3,503 | 7,154 | 6,818 |
| Source: Ministry of Finance: SDG 17.1.1, SDG 17.1.2, SDG 17.13.1, SDG 17.14.1, SDG 17.19.1, Bank of Guyana: SDG 17.3.2, Public Utilities Commission: SDG 17.6.1, Office of the President, Department of Environment and Climate Change: SDG 17.7.1, Ministry of Foreign Affairs and International Cooperation: SDG 17.10.1, Bureau of Statistics:SDG 17.1.1, SDG 17.3.2, SDG 17.4.1, SDG 17.18.2, SDG 17.18.3, SDG 17.19.2, General Register Office: SDG 17.19.2 | | | | | | | | | | |

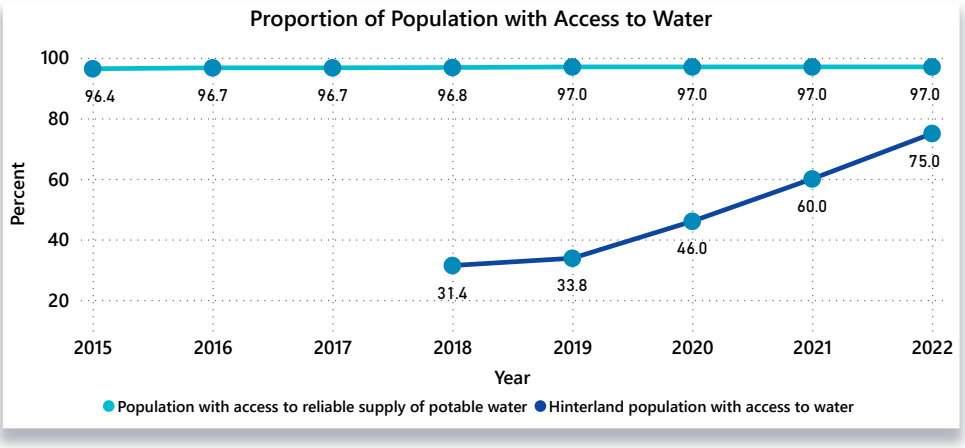
# Annex - B:
# GRAPHICAL PRESENTATION

The Graphical Presentation includes an illustration of selected Global and National Indicators of the five (5) Goals under review for HLPF 2023. It highlights the progress Guyana has made towards the achievement of Agenda 2030.

## GOAL SIX | CLEAN WATER AND SANITATION

Target 6.1 *By 2030, achieve universal and equitable access to safe and affordable drinking water for all*

*SDG 6.1.1 Proportion of population using safely managed drinking water services*

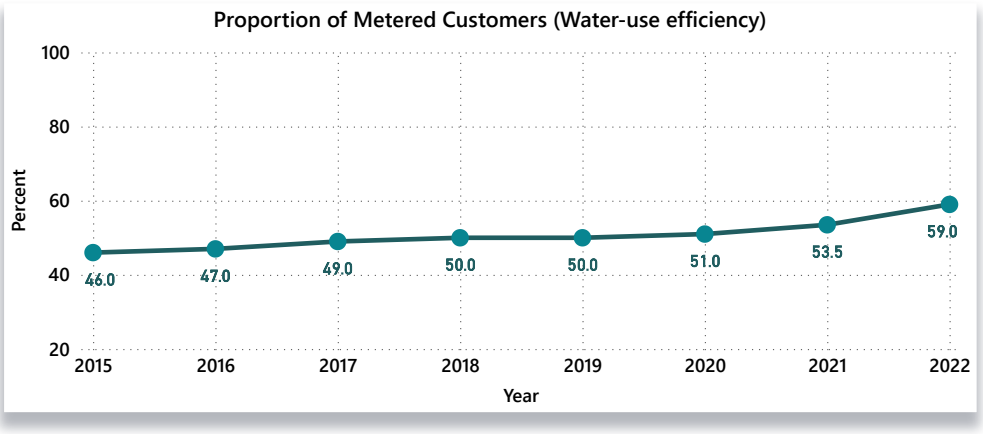



**Source:** Guyana Water Incorporated
**Note:** National Indicator

# GOAL SIX | CLEAN WATER AND SANITATION

*Target 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*

*SDG 6.4.1 Change in water-use efficiency over time (United States dollars per cubic meter)*

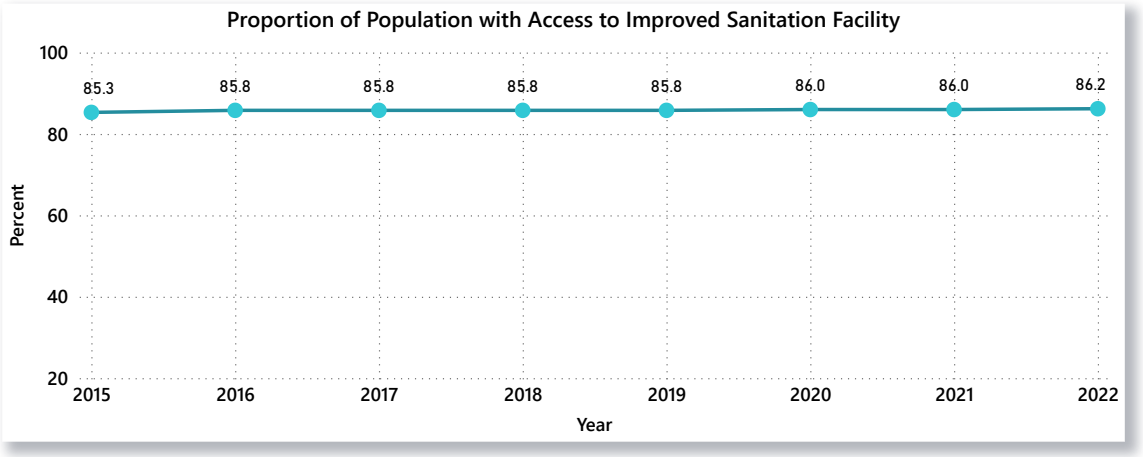



**Source:** Guyana Water Incorporated
**Note:** National Indicator

# GOAL SIX | CLEAN WATER AND SANITATION

Target 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*

*SDG 6.2.1* Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water

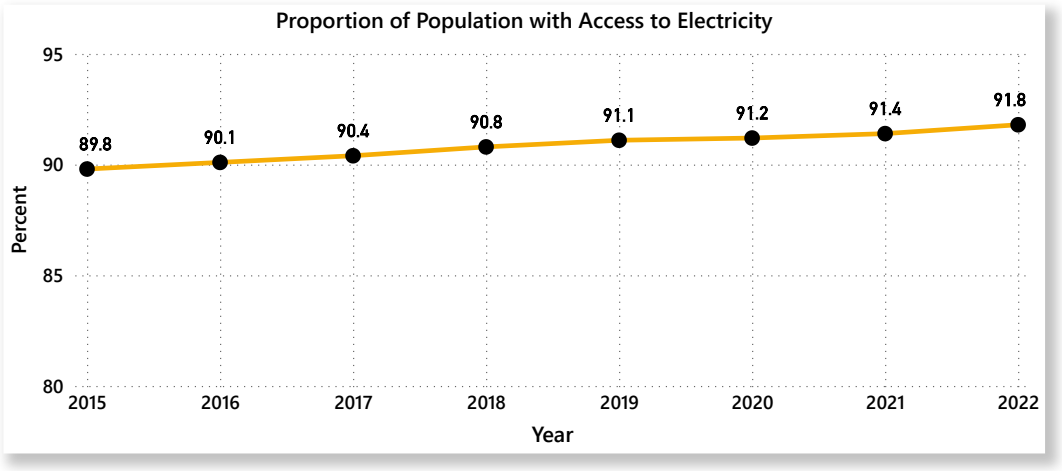



**Source:** Guyana Water Incorporated
**Note:** National Indicator

# GOAL SEVEN | AFFORDABLE AND CLEAN ENERGY

*Target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services*

*SDG 7.1.1 Proportion of population with access to electricity*

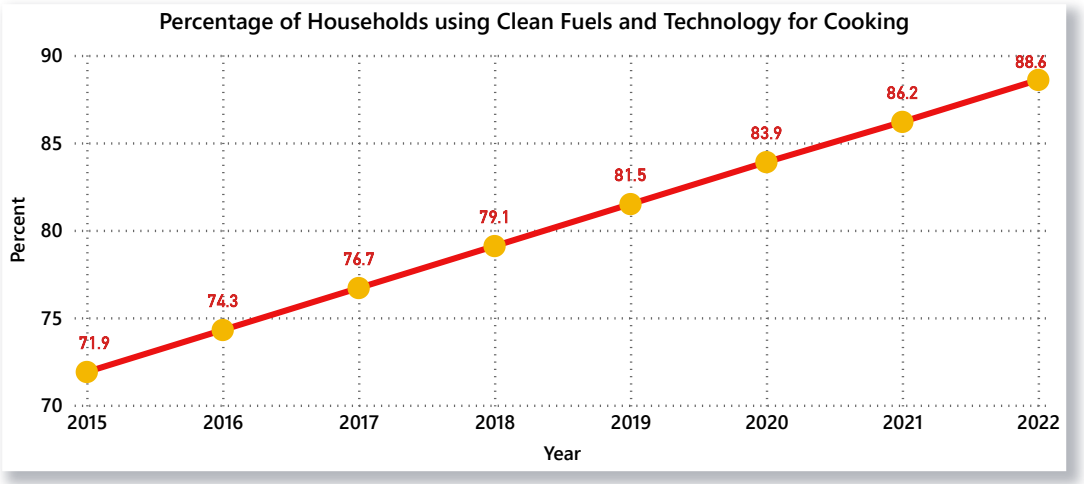



**Source:** Office of the Prime Minister, Guyana Energy Agency, Guyana Power and Light Incorporated


# GOAL SEVEN | AFFORDABLE AND CLEAN ENERGY

*Target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services*


*SDG 7.1.2 Proportion of population with primary reliance on clean fuels and technology*

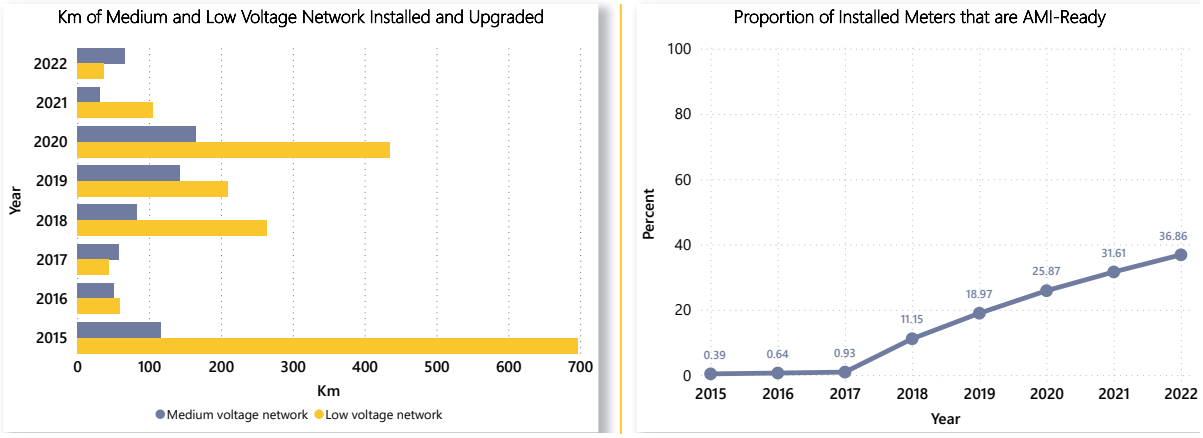



**Source:** Guyana Energy Agency

# GOAL SEVEN| AFFORDABLE AND CLEAN ENERGY

*Target 7b 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*

*SDG7.b.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)*

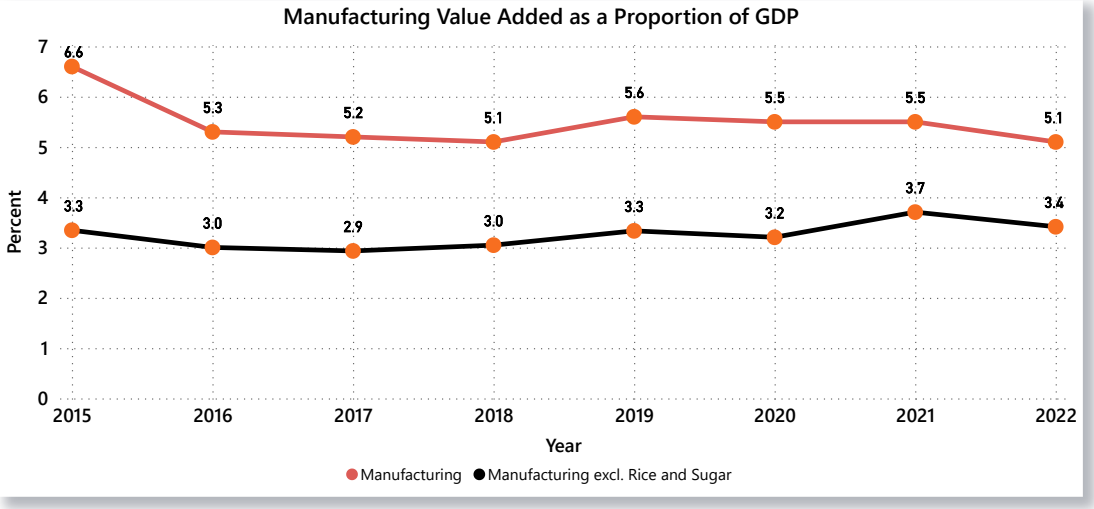



**Source:** Guyana Power and Light Incorporated
**Note:** National Indicator

# GOAL NINE | INDUSTRY INNOVATION AND INFRASTRUCTURE

*Target 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*

***SDG 9.2.1 Manufacturing value added as a proportion of GDP and Per Capita***

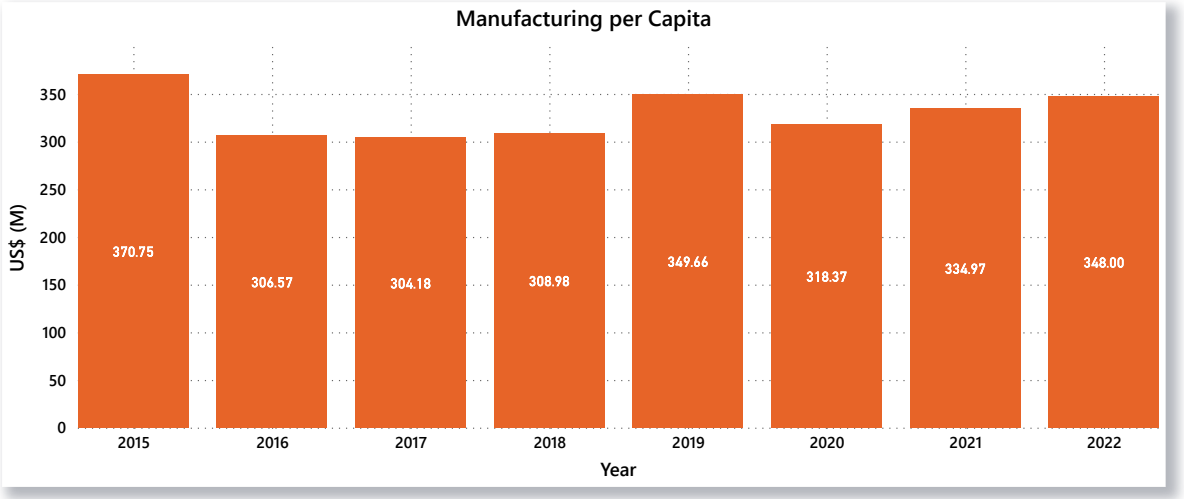



**Source:** Bureau of Statistics
**Note:** Non-Oil GDP at Constant Prices (2012)
GDP was rebased in 2019 to the year 2012


# GOAL NINE | INDUSTRY INNOVATION AND INFRASTRUCTURE

*Target 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*

***SDG 9.2.1 Manufacturing value added as a proportion of GDP and Per Capita***

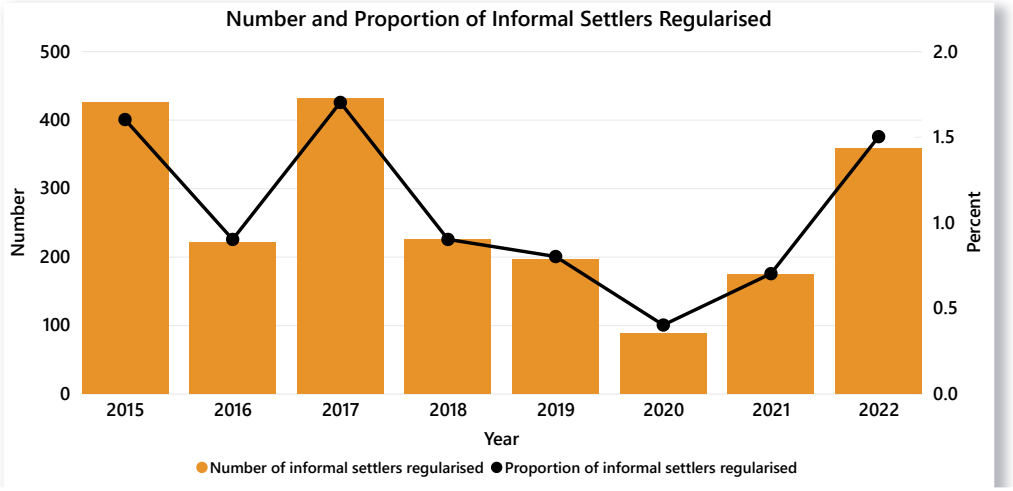




**Source:** Bureau of Statistics

# GOAL ELEVEN | SUSTAINABLE CITIES AND COMMUNITIES

*Target 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums*

*SDG 11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing*

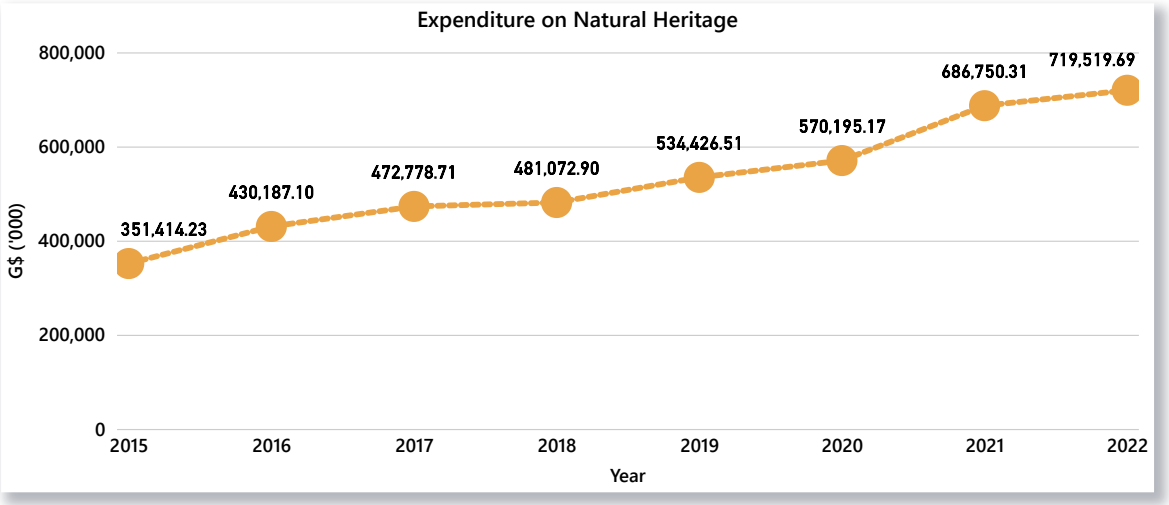



**Source:** Ministry of Housing and Water
**Note:** National Indicator

# GOAL ELEVEN | SUSTAINABLE CITIES AND COMMUNITIES

*Target 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage*

*SDG 11.4.1 Total per capita expenditure on the preservation, protection and conservation of all cultural and natural heritage, by source of funding (public, private), type of heritage (cultural, natural) and level of government (national, regional, and local/municipal)*

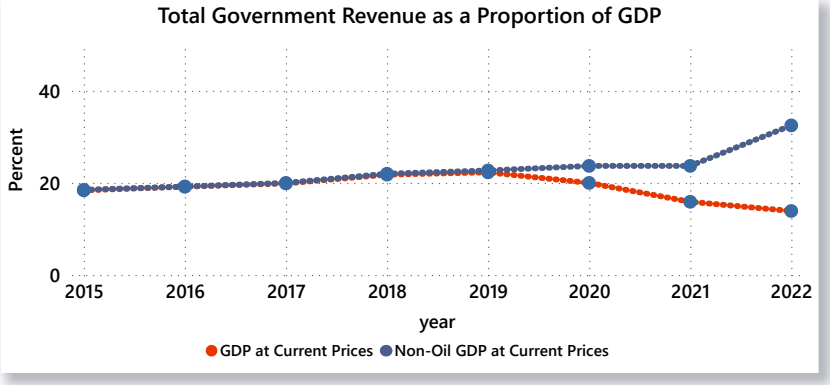



**Source:** Protected Areas Commission

# GOAL SEVENTEEN | PARTNERSHIP FOR THE GOALS

*Target 17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection*

*SDG 17.1.1 Total government revenue as a proportion of GDP, by source*



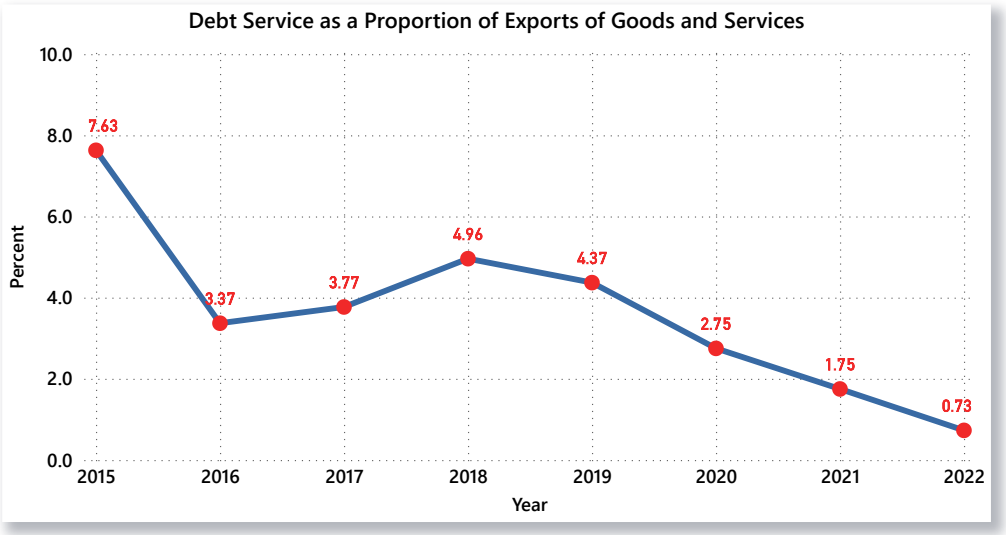

**Method of computation:** $\frac{\textit{Total government revenue}}{\textit{GDP at current basic prices (Oil \& Non-Oil)}} * 100$

**Source:** Bureau of Statistics
**Note:** GDP rebased in 2019 at 2012 base year

# GOAL SEVENTEEN | PARTNERSHIP FOR THE GOALS

*Target 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*

*SDG17.4.1 Debt service as a proportion of exports of goods and services*




**Source:** Ministry of Finance

# GOAL SEVENTEEN | PARTNERSHIP FOR THE GOALS

Target 17.11 *Developing countries' and least developed countries' share of global exports*

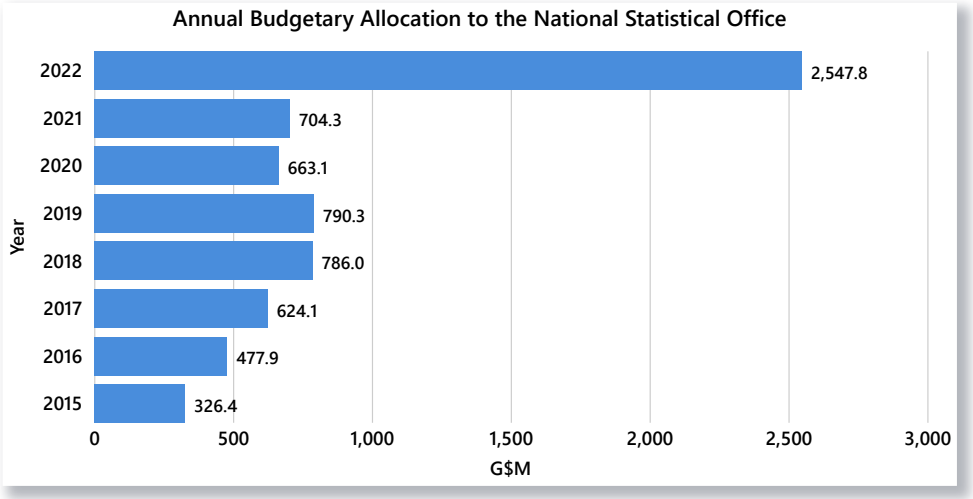
*SDG 17.11.1 Developing countries' and least developed countries' share of global exports*


**Source:** Bureau of Statistics
**Note:** National Indicator

# GOAL SEVENTEEN | PARTNERSHIP FOR THE GOALS

*Target 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*

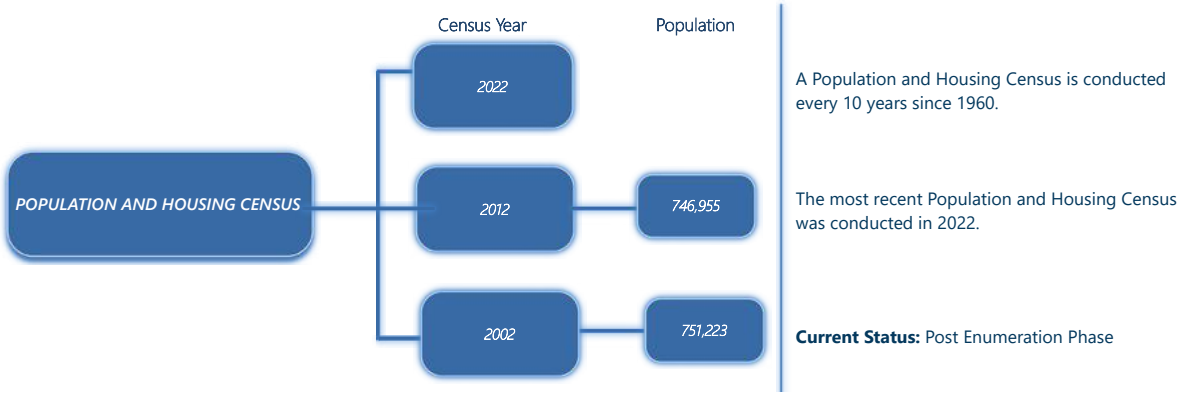
*SDG 17.19.1 Dollar value of all resources made available to strengthen statistical capacity in developing countries*




**Source:** Ministry of Finance
**Note:** National Indicator

*Target 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*

*SDG 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 per cent birth registration and 80 per cent death registration*




**Source:** Bureau of Statistics
**Note:** SDG 17.19.2a


**Ministry of Finance**

49 Main and Urquhart Streets, Georgetown,
Co-operative Republic of Guyana