SDG Impact

UNDP

BELIZE
SDG INVESTOR MAP
INVESTMENT OPPORTUNITY AREAS
ANNUAL REPORT 2021

UNITED NATIONS DEVELOPMENT PROGRAMME

TABLE OF CONTENT

Honourable Christopher Coye

MESSAGE FROM MINISTER OF STATE — FINANCE, ECONOMIC DEVELOPMENT AND INVESTMENT

The Government of Belize is pleased to showcase the first edition of the Sustainable Development Goals Investment Opportunity Areas (IOAs) with the support of the United Nations Development Program (UNDP). The IOAs highlights 16 investment opportunities for both local and international investors in areas that are aligned to sustainable development and aimed at diversifying the economy while providing investors with an attractive profit margin.

As we celebrate our 40th year of independence, we assuredly say that Belize is open for business! Amidst the global economic challenges, Belize provides a safe haven for investment offering numerous investment opportunities. Belize continues to enjoy stark competitive advantages for investment given our long standing peaceful democracy, our English common law based legal system that protects property rights, our strategic location near important and thriving markets supported by preferential trade agreements, a highly skilled young vibrant English-speaking workforce, and attractive investment incentive programs.

The completion of the IOAs therefore comes at a felicitous moment and marks the Government of Belize's commitment to accelerating investment growth aligned with the sustainable development goals and a more resilient economy.

Mrs. Denise Antonio

MESSAGE FROM UNDP RESIDENT REPRESENTATIVE

The United Nations Development Programme (UNDP) in Belize is pleased to present the first edition of the Sustainable Development Goals (SDGs) Investor Map for Belize. The SDG Map is a UNDP initiative developed to provide investors with market intelligence about tangible investment opportunities and business models that can advance the SDGs while providing resilient and inclusive growth opportunities for Belize. This tool was first piloted in 2019 and later utilized in several countries in Asia, Africa, Latin America in 2020.

The mapping process identified Investment Opportunity Areas (IOAs) and business models that responds to national development priorities. The IOAs are designed to connect national, regional and international investors to actionable investment opportunities supported by market analysis and are aimed to advance progress towards the achievement of Belize's SDGs while providing investors with favourable profit margins.

The process is rooted in the national development priorities and at a time when more than ever, a sustainable, inclusive and transformative approach to economic development is required. In this first edition we have identified 16 IOAs spanning the sectors of Agriculture, Education, Finance, Health, Infrastructure, Renewal Resources including Alternative Energy and Transportation. The launch of Belize's IOAs has been realized through the partnership, leadership and engagement of the Government of Belize and the private sector partners. We are grateful for the guidance and ownership from the Ministry of Finance, Economic Development and Investment and the Office of the Prime Minister. The application of the UNDP developed technical planning tool was supported by resources made available by UNDP's Regional Bureau for Latin America and the Caribbean and UNDP's Finance Sector Hub in its New York Headquarters. UNDP expresses its appreciation to the UN Resident Coordinator's Office who also assisted in leveraging additional financial support for the process from the UN COVID-19 Response and Recovery Multi-Partner Trust Fund and partnered in the technical peer review process.

The national consultancy team, operating under the banner of PPF Capital have demonstrated the innovation, commitment and expertise along with the necessary knowledge of local circumstance to translate this methodology to the Belizean reality. Lastly, my team in the UNDP Belize Country Office were wholly committed to this initiative, recognising that this has the potential to be a transformational process for the country.

LIST OF FIGURES

LIST OF TABLES

LIST OF BOXES

ABBREVIATIONS

ATM	Automated Teller Machines
BACTE	Belize Association for Career and Technical Education
BEL	Belize Electricity Limited
BECOL	Belize Electric Company Limited
BELTRAIDE	Belize Trade and Investment Development Service
BHIS	Belize Health Information System
BOOST	Building Opportunities for Our Social Transformation
BTL	Belize Telemedia Limited
BWS	Belize Water Services Limited
CAGR	Compounded Annual Growth Rate
CARDI	Caribbean Agricultural Research and Development Institute
CARICOM	Caribbean Community
CBB	Central Bank of Belize
CBD	Convention on Biological Diversity
CEO	Chief Executive Officer
CFE	Comisión Federal de Energía
CO	Country Office
DFC	Development Finance Corporation
EV	Electric Vehicles
GOB	Government of Belize
GPM	Gross Profit Margin
GSDS	Belize's Growth and Development Sustainable Strategy
GWh	Gigawatt Hours
ICZM	Integrated Coastal Zone Management
IICA	Inter-American Institute for Cooperation on Agriculture
IOA	Investment Opportunity Areas
IPP	Independent Power Producers
IRR	Internal Rate of Return
ITVET	Institute of Technical and Vocational Training

KHMH	Karl Heusner Memorial Hospital
LPG	Liquified Petroleum Gas
MA	Managed Access
MOH	Ministry of Health
MOHW	Ministry of Health and Wellness
MSDCF	Multi-Country Sustainable Development Cooperation Framework
MSME	Micro, Small and Medium Enterprise
NCTVET	National Council for Technical Vocational and Educational Training
NDC	Nationally Determined Contributions
NFIS	Belize's National Financial Inclusion Strategy
NHI	National Health Insurance
NPAS	National Protected Areas System
NPASP	National Protected Areas System Plan
OECD	Organisation for Economic Co-operation and Development
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
OSIPP	Office of the Supervisor of Insurance and Private Pension
PAs	Protected Area
PSA	Partial Scope Agreement
PUC	Public Utilities Commission
PV	Photovoltaics
REAP	Rural Education Agriculture Program
ROI	Return on Investment
RRD	Revenue Replacement Duty
SDG	Sustainable Development Goal
SEIPAC	Central American Electrical Interconnection System
SICA	Central American Integration System
SSB	Social Security Board
UB	University of Belize
UNDP	United Nations Development Programme
WASA	Water and Sewerage Authority

1.0 EXECUTIVE SUMMARY

Belize's SDG Investor Map 2021 is a tool developed by the United Nations Development Programme (UNDP) Belize Country Office and UNDP SDG Impact, a global programme tasked with developing resources and solutions to facilitate investment towards achieving the Sustainable Development Goals (SDGs) by 2030. This report has been written in close collaboration with the Government of Belize and multiple stakeholders within the identified priority sectors. The SDG Investor Map provides investors with insights into local markets and opportunities that both advance SDG goals and generate financial returns for investors.

Belize's SDG investor Map identifies 16 investment opportunity areas, obtained through close collaboration and consultations with stakeholders and by review of existing policy documents and development priorities. Investment Opportunity Areas (IOAs) were identified in the following key sectors which are industries classified under the SASB[1] taxonomy: Education, Financial, Infrastructure, Transportation, Healthcare, Food and Beverages, Renewable Resources and Energy and Services. The map is written in strong alignment with the Plan Belize (2020-2025) strategy, Belize's Growth and Sustainable Development Strategy, Horizon 2030, Belize's Nationally Determined Contributions, the Economic Recovery Strategy (developed in response to COVID-19), and the United Nations Belize Common Country Analysis 2021.

The overview of the investment opportunity areas is documented in this report, with specific data points key to investment highlighted within its maps. Investments that aim to achieve Sustainable Development Goals (SDGs) is gaining momentum in Belize as most policies and studies reference the need for and importance of creating projects that are in line with the sustainable and environmental goals.

Belize's SDG Investor Map 2021 is a result of extensive literature reviews and interviews with key stakeholders from different sectors. A Project Steering Committee (PSC), along with a SDG Investor Map Specialist provided guidance in terms of the research process, methodology to carry out the project and inputs into specific findings relating to the identified investment opportunities.

The COVID-19 Pandemic exacerbated the need for many of these identified projects. These projects aim to increase access to basic services for the Belizean population, particularly those in marginalized communities. Sustainable investing continues to attract investors as many want to contribute to positive change, which aligns with their Environmental Social Governance (ESG) practices. This report represents efforts by the UNDP Belize to mobilize suitable financing for the fulfillment of the SDGs in Belize.

1 Sustainability Accounting Standards Board

2.0 INTRODUCTION

To address world-wide challenges, the Sustainable Development Goals (SDG) provide a blueprint to achieve a more sustainable and resilient future. The SDG Map provides investors with market intelligence (data, analysis and evidence) about investment opportunities and business models that could advance the SDGs in a specific context. The Map also allows for identification of Investment Opportunity Areas (IOAs) and business models that respond to both SDG needs and policy priorities to guide domestic and foreign investor decision-making. By connecting investors to market specific investment opportunities backed by accurate and actionable information, SDG Investor Maps advance progress towards the achievement of Belize's SDGs. Through discussions and stakeholder consultations, opportunities and bottlenecks in the policy and regulatory environment were identified that can guide United Nations Development Programme (UNDP) support to governments. As a public good that can inform and forge collective action, the SDG Investor Maps are a significant step towards achieving national priorities in education, financial inclusion, renewable energy, and poverty reduction, amongst others.

Investing to promote sustainable economic, social, and environmental development has gained significant momentum as the Government seeks to push an impact driven strategy. The map is being developed through close collaboration with the UNDP Country Office (CO) Team and both public and private stakeholders to ensure relevance and reflect development needs. This was done by analyzing new data on 1) changes in private sector strategies and 2) emerging SDG-related priorities in the context of COVID-19 to identify business models and critical investment opportunities areas. Unfortunately, because of the Covid-19 pandemic, achieving the targeted number of SDGs has been challenged once again. The ongoing economic fallout caused by the pandemic threatens the decades of progress and efforts made towards SDG-aligned development across different countries. Financing and investment, which play a critical role in achieving the SDGs by channeling capital towards solutions within the priority sectors in the economy, have been strained.

Achieving the 17 SDGs set forth in the UN's 2030 Agenda for Sustainable Development will take between US$5 trillion and $7 trillion per year. However, the current level of investment by governments, development agencies, and other actors is not enough to meet these ambitious targets, which aim to reduce poverty and inequality and improve health and economic opportunity by 2030, while mitigating the harmful effects of climate change. The investment gap in developing countries stands at about $2.5 trillion per year[2].

2 United Nations Conference of Trade and Development (UNCTAD)

Shaping outcomes in line with the SDGs will require sustained and collective effort from all private and public sector stakeholders. In Belize, the need for enhanced private sector engagement is particularly important given that roughly 70% of jobs are created through Micro, Small and Medium Enterprises (MSMEs).[3] SDG Investor Maps for Belize can help guide potential investors to capitalize on viable investment opportunities that would advance SDG goals and create synergies between local and international entrepreneurs and investors that provide sustainable returns. While there is potential for private investments, developing countries, like Belize are unable to attract high levels of investments due to limited data and lack of insights into possible investment opportunities that may exist within the country.

The remainder of this document is structured in four (4) sections:

1. **Methodology:**

This section describes the steps and actions taken to develop the SDG Investor Map Report. The methodology follows a four (4) step process as guided by the UNDP SDG Investor Mapping Methodology.

2. **Development Needs and Policy Momentum:**

This section identifies, assesses and analyzes the existing national priorities and data sources- specifically public and private sources of secondary research including government documents, public legislation, regulatory guidance around sustainable development, national investment plans, and sector maps, investment reports and other research from relevant institutions which pertain to national and local investment needs to identify critical areas of challenges and where there is current policy support.

3. **Priority Sectors:**

This section provides an overview of the prioritized sectors along with support development needs, bottlenecks, areas of policy support and the potential Investment Opportunity Areas (IOAs).

4. **Conclusion:**

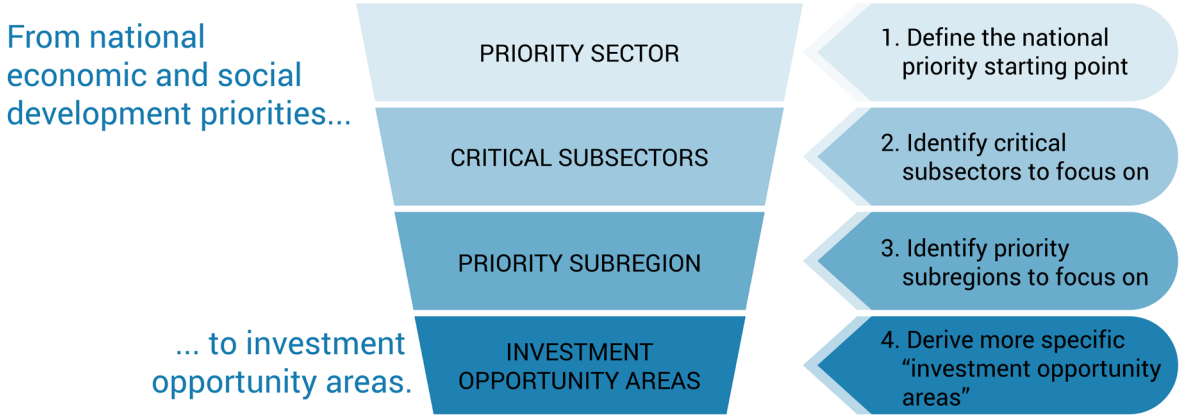
This section provides a summary of the SDG Investor Map Report and the main findings from the project analysis (to be developed based on feedback from the UNDP Team)

3 Source: UNDP. 2020. Covid-19 Socioeconomic Impact Assessment - Belize 2020. Belize City.

3.0 METHODOLOGY

SDG Investor Maps are dynamic tools that provide a range of market-specific and SDG-aligned investment opportunities. All SDG Investor Maps are underpinned by a methodology that identifies Investment Opportunity Areas (IOAs) within national economic, environmental, and social development priorities. They are backed by data and evidence gathered through secondary and primary research and are provided as a public good to investors and governments to facilitate productive and SDG- aligned capital deployment. Through the investor maps, countries can enjoy greater mobilization of private sector capital while contributing to national priorities which include SDG attainment. The methodology follows a 'funnel' process that starts with taking into consideration national development needs and policy priorities, investment/ financial momentum by public and private stakeholders, priority sectors, subsectors, and regions with the highest development needs. They are backed by data and evidence gathered through research and are provided as a public good to investors and governments in order to facilitate productive and SDG-aligned capital deployment. The SDG Investor Maps which were piloted in Brazil, have been rolled out in many other countries. As of March 2021, Brazil, China, Colombia, Paraguay, Ghana, India, Jordan, Kenya, Nigeria, Rwanda, South Africa, Turkey, and Uganda have completed the maps and are currently at the stage of implementation.

Figure 2: Mapping Methodology[4]



The methodology consists of a four (4) step process that draws from a combination of in-depth research and focused in-country consultations with key stakeholders from both the public and private sector. Through an iterative research-intensive process, the objective is to identify and validate where there is overlap between development needs and policy priorities, recurring themes of policy areas and thereby refine this opportunity into a specific Investment Opportunity Area (IOA). The approach and methodology consist of the following:

Step 1: DEFINE NATIONAL PRIORITIES

In Step 1, national priority starting points were defined by identifying sectors where there is clear political and/or financial commitment to stimulate development and investment, focusing particularly on those sectors where investment can help contribute directly and indirectly to SDGs. Sectors can include education, health, transportation, and agriculture. Sectoral development through greater private sector capital deployment should be grounded by national policy priorities. PPF will also incorporate the recommendations and best practices outlined in the United Nations Multi-Country Sustainable Development Cooperation Framework (MSDCF) and the UNDP Country Programme Document (CPD 2022-2026) and UN Belize Common Country Analysis 2021 to refine the priority sector list.

4 Source: UNDP SDG Investor Mapping Methodology

Step 2: IDENTIFY CRITICAL SUBSECTORS

In step 2, critical sub sectors will be identified, ensuring that there exists an enabling and supportive policy and investment framework to fulfil development needs. In Belize, particularly because of the Covid-19 pandemic, an emerging subsector is education technology as students of all ages navigate traditional in-person curriculums via distance learning and other mobile solutions. Accessible education technology directly contributes to SDG 4 - Quality Education; SDG 8 - Decent Work and Economic Growth; SDG 9 - Industry, Innovation, and Infrastructure; and SDG 10 - Reduced Inequalities.

Step 3: IDENTIFY PRIORITY SUBREGIONS

In Step 3, priority subregions will be identified, ensuring that an enabling and supportive environment exists for sub sector development. In the case of the education technology subsector, priority sub regions include rural areas in Belize, particularly in the south and southwest, where access to telecommunications (e.g., internet) remains limited. Students living in rural areas are increasingly vulnerable to being left behind as physical classrooms are substituted for virtual spaces that rely on telecommunications infrastructure that may be in their communities.

Step 4: DERIVE INVESTMENT OPPORTUNITY AREAS (IOAs)

In Step 4, Investment Opportunity Areas are derived, outlining impactful business models that can ensure return on investment and contribute to SDG fulfillment. IOAs will be broken down by their scale potential relative to existing benchmarks and addressable markets (if applicable), their market history and projections, their life-cycle stage - emerging or mature, and emerging business models. 'White Spaces', defined as IOAs in need of new business models, will also be identified to motivate innovative and impactful entrepreneurship and investment.

4.0 DEVELOPMENT NEEDS AND POLICY MOMENTUM

The key pillar of the SDG Investor Map is to identify, assess and analyze the existing national priorities and data sources- specifically public and private sources of secondary research including government documents, public legislation, regulatory guidance around sustainable development, national investment plans, and sector maps, investment reports and other research from relevant institutions which pertain to national and local investment needs, which feeds into the development of Belize's SDG Investor Map. The purpose of this is to identify where the financing gap is between investability and the country's development needs.

An extensive review of national policies and development needs as espoused in national strategy documents was conducted, including the Voluntary National Review, GSDS reports, Plan Belize, Economic Recovery Strategy, Horizon 2030 and investor mapping reports amongst others. These reports were used to identify and highlight thematic development needs and policy priority areas. These included agriculture, energy, healthcare, education, citizen security, sustainable environment, infrastructure development, technology, and tourism. Based on this, the most frequent development needs identified were highlighted to match priority sectors. Seven (7) priority sectors were identified which were then discussed and validated by the Project Steering Committee, UNDP Country Office and the Ministry of Finance. In this report, priority sectors are identified as 1) Education, 2) Healthcare, 3) Financial, 4) Renewable Resources and Energy, 5) Food and Beverages, 6) Infrastructure, and 7) Services[5].

Belize has made significant efforts in achieving its strategic priorities as mentioned in the Horizon 2030: National Development Framework for Belize 2010- 2030. The strategic priorities for Belize by the year 2030 include democratic governance for effective public administration and sustainable development, education, economic resilience and a healthy citizenry and environment. To complement this plan and guide the implementation and achievement of the SDGs, the Growth and Sustainable Development Strategy 2016-2020 was adopted. To gauge a perspective of SDG implementation, Belize's SDG Voluntary National Review (2017) is an important document for the development needs and priorities of the country. The Voluntary National Review examined Belize's progress towards SDGs, identifying specifically where performance and progress has been significant or where performance has been stagnant. The specific SDGs prioritized and reviewed can be found in Figure 3.

Figure 3: Voluntary National Review of SDGs: Belize (2017)

5 In line with the Sustainability Accounting Standards Board Sustainable Industry Classification System

Based on this analysis of prioritized SDGs in Belize and the further review of national development policies and plans, sectors with most potential for investment opportunities were identified. The following outlines the top policy areas identified and their contributions to the relevant SDGs for Belize (Voluntary National Review 2017).

GOAL #1 NO POVERTY:

The Government has implemented several programs to protect its poor and most vulnerable groups, however many remain small and poorly targeted. Amongst the Caribbean, Belize reports the highest poverty rate estimated at 52% in 2018 (Pre-COVID 19). The Ministry of Human Development, Social Transformation and Poverty Alleviation, the Government heads this process and launched in 2010, the Building Opportunities for Our Social Transformation (BOOST) scheme. BOOST is a World Bank validated Co-responsibility Cash Transfer programme and the Food Pantry scheme, a subsidized food basket for the working poor that was enabled through a series of institutional reform.

GOAL #3 GOOD HEALTH AND WELL-BEING:

Dependence on health care workers, doctors through international cooperation coupled with the migration of Belizean health care workers contribute to greater human resources challenges. Barriers to accessing health services such as geographical inaccessibility, economical barrier, limited transportation, and lack of confidence in the health system are few of the key issues. Additionally, Belize's healthcare system is heavily reliant on public financing. The MOH[6] was allocated an average of 11.3% of the government budget between 2017 - 2020. For the fiscal year of 2020/21, the MOH was allocated 11.1% of the government budget - approximately USD $77.0 million. The COVID-19 pandemic placed an increased pressure on the healthcare system - with already limited resources.

GOAL #5 GENDER EQUALITY:

The Government of Belize embarked on aligning gender equality policies, plans and other normative frameworks. The Women's Department, the National Committee for Women and Children and the National Women's Commission implements and/or advises the Government on gender-related issues, gender-based violence reduction and ensures gender mainstreaming in all aspects of planning for development, as well as, to ensure compliance with various gender-related international conventions.

GOAL #14 LIFE BELOW WATER:

The Integrated Coastal Zone Management (ICZM) plan was finalized and endorsed in 2016. The aim of the plan was to recommend actions that will ensure sustainable coastal resource use by balancing conservation practices with economic and social needs. Managed Access (MA) was piloted in two marine protected areas, then rolled out across territorial waters in 2016. MA aims to build good stewardship and improve fishing practices by establishing nine fisheries management areas.

In 2020, an assessment was conducted on the social and economic impact of the COVID-19 on Belize, with the purpose of developing impactful and appropriate policy response options. The policy options were aligned with national strategies and plans, and sought to address SDGs that were directly affected or compromised. Some of the SDGs directly impacted include:

Box 1: Progress on SDGs

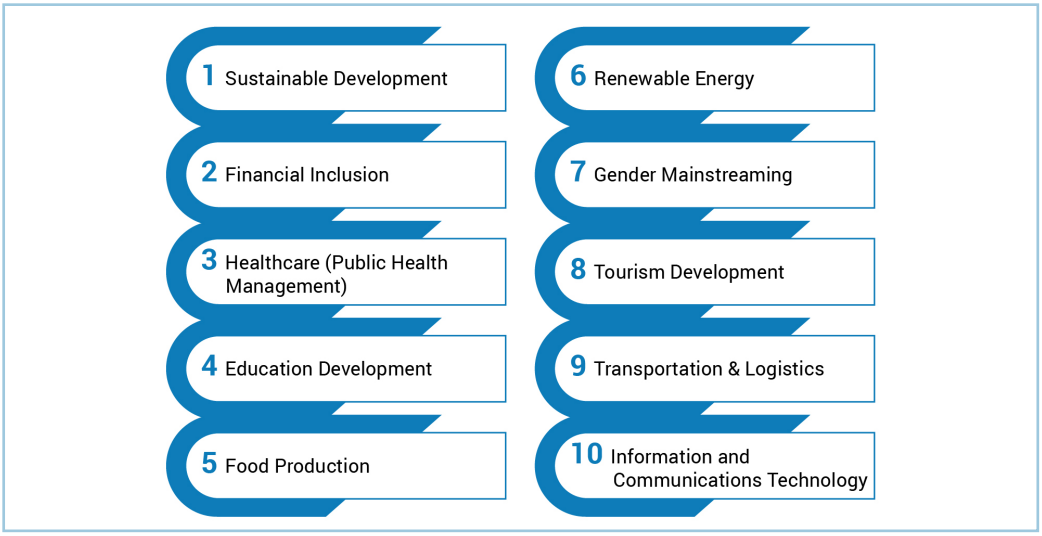
6 Ministry of Health

The key pillar of the SDG Investor Map is to identify, assess and analyze existing national priorities and data sources- specifically public and private sources of secondary research including government documents, public legislation, regulatory guidance around sustainable development, national investment plans, sector maps, investment reports and other research from relevant institutions which pertain to national and local investment needs, to feed into the development of Belize's SDG Investor Map. Some of the national plans and policies reviewed include:

- Plan Belize
- The National Development Plan: Horizon 2030
- Belize Growth and Sustainable Development Strategy 2016-2021
- Belize's National Biodiversity Strategy and Action Plan (NBSAP) 2016-2020
- National Financial Inclusion Strategy (NFIS)
- National Investment Policy and Strategy (BELTRAIDE)
- UNDP Socio Economic Impact Assessment of Belize (2020)
- Belize Economic Recovery Strategy
- Nationally Determined Contributions to UNFCCC
- Voluntary National Review (VNR) for development-related priorities
- National Agriculture and Food Policy Belize
- National Transportation Master Plan for Belize (2018)
- United Nations Belize Common Country Analysis 2021

The purpose of the SDG Investor Map is to identify where the financing gap is between investability and the country's development needs. A side-by-side review was conducted to assess Belize's development needs and policy priority areas. Based on this analysis, a total of ten (10) policy priority areas were identified. This was done to determine areas where there is strong financial and political momentum. From this side-by-side review, it was clearer where the bottlenecks to investing in the sector lie and the current challenges facing each of the sectors.

Figure 4: Policy Priority Areas



Priority sectors and subsectors selected for Belize's Investor Map are defined by a taxonomy aligned with the Sustainability Accounting Standards Board Sustainable Industry Classification System (SICS). The SICS uses an impact-focused methodology which categorizes different entities under a sustainability lens. SICS is an expansion of traditional classification systems and complements traditional classification systems by grouping companies into sectors and industries per a fundamental view of their business model, resource intensity and sustainability impacts, and sustainability innovation potential.

Figure 5: Sustainability Accounting Standards Board Sustainable Industry Classification System

6.0 SECTOR 1: EDUCATION

6.1 SECTOR OVERVIEW

Belize's Education System is divided into five divisions: preschool, primary school, secondary school, tertiary (junior colleges/ sixth forms) and continuing education. The education system consists of a mixture of public, private, and church/religious institutions. The Ministry of Education, Culture, Science and Technology is the responsible body for ensuring that all Belizeans are provided with the opportunity to acquire the knowledge and skills and attitudes required for personal development and for full and active participation in the development of the nation.

The education system was identified as a priority sector for development and investment as it contributes to economic growth and for achieving equal opportunities. As of 2019, approximately 105,604 students in total were enrolled in school of which the majority were enrolled in primary school, followed by secondary school (21.1%). Total school enrollment across all levels of education has been relatively stable over the most recent years.

Table 1: School Enrollment in Belize[7]

	2018	2019
Preschool	7,485	7,312
Primary School	65,993	64,982
Secondary School	22,313	22,280
Tertiary	9,830	10,164
TVET	753	856
Total	**106,374**	**105,604**

While total school enrollment across all levels of education has been relatively stable over the years, the COVID-19 pandemic has affected the education system worldwide, leading to a significant change in the traditional teaching and learning formats for most colleges and universities. Some of the limitations identified because of the pandemic are digital learning and access to internet services. There has been a shift to the use of online/distance learning that has allowed teachers and students to continue learning remotely. However, for some this is still a challenge due to the lack of having digital resources required to continue their education without any disruptions. At the preschool level, only one in every three children aged 3-4 were attending school in 2009.

The number of students enrolled in the Institute of Technical and Vocational Training (ITVET) has remained small over the last couple of years. There is potential to increase the number of students in technical and vocational training education. TVETs provide the required knowledge and skills for employment and are considered a critical vehicle for social equity, inclusion and economic development. The mandate of the TVET is to equip the youths with skills, knowledge and work ethic that will allow them to successfully obtain employment. The Ministry of Education has listed elevating the quality and status of technical and vocational education in Belize as a strategic priority by partnering with the public and private sector to update the infrastructure, programs, curriculums, and available expertise.Box 2:

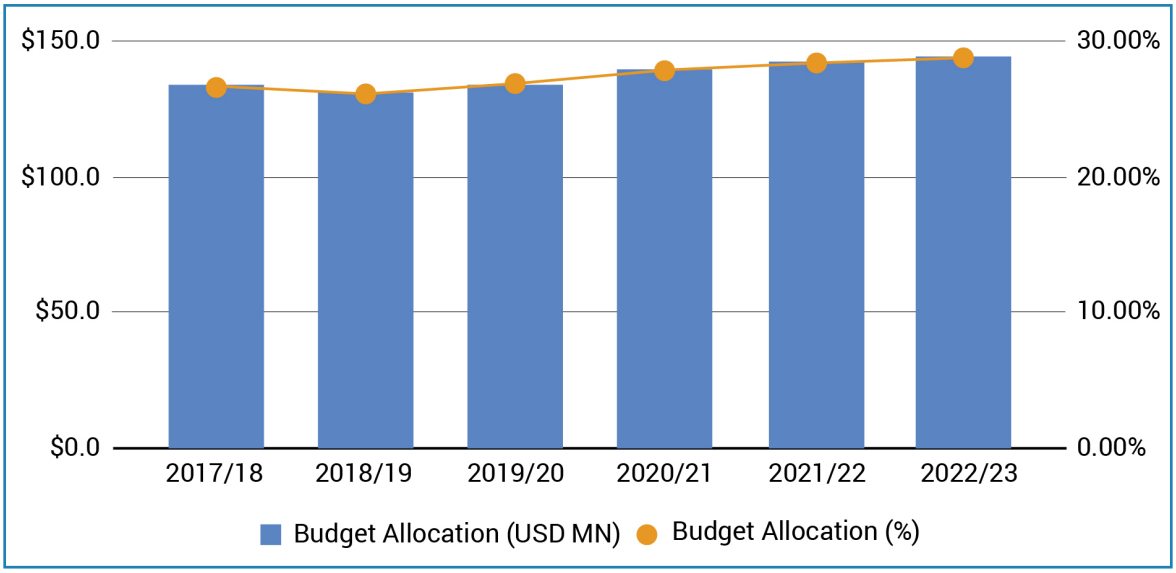
7 Statistical Institute of Belize (2019)

Overview of the Education Sector in Belize [8]

- 1 in 3 persons two years and older were enrolled in the formal education system
- 27% of children aged 2-4 were enrolled in preschool
- 82.3% (~67,298) of children aged 5-12 were enrolled in primary school
- More than 1 in 2 or 51.3% (~22,036) of the population aged 13-16 were enrolled in secondary school
- Of the total population (14 years and older)- ~259,408:
    - 16.9% had not completed any formal schooling
    - 45.0% had completed primary school only
    - 20.3% had completed up to secondary school
    - 16.2% had completed up to tertiary school

The Government oversees the delivery of education by almost 5,700 teachers in approximately 630 educational institutions to close to 102,000 students. In 2019, over USD $134 million was spent on education in Belize, which is equivalent to 26.7% of the Government's expenditure. While there have been significant strides made to further the progress of the education sector in Belize, enrollment rates have decreased from 47.7% in 2010 to 37.7% in 2020.

Figure 6: Budget Allocation to the Ministry of Education[9]



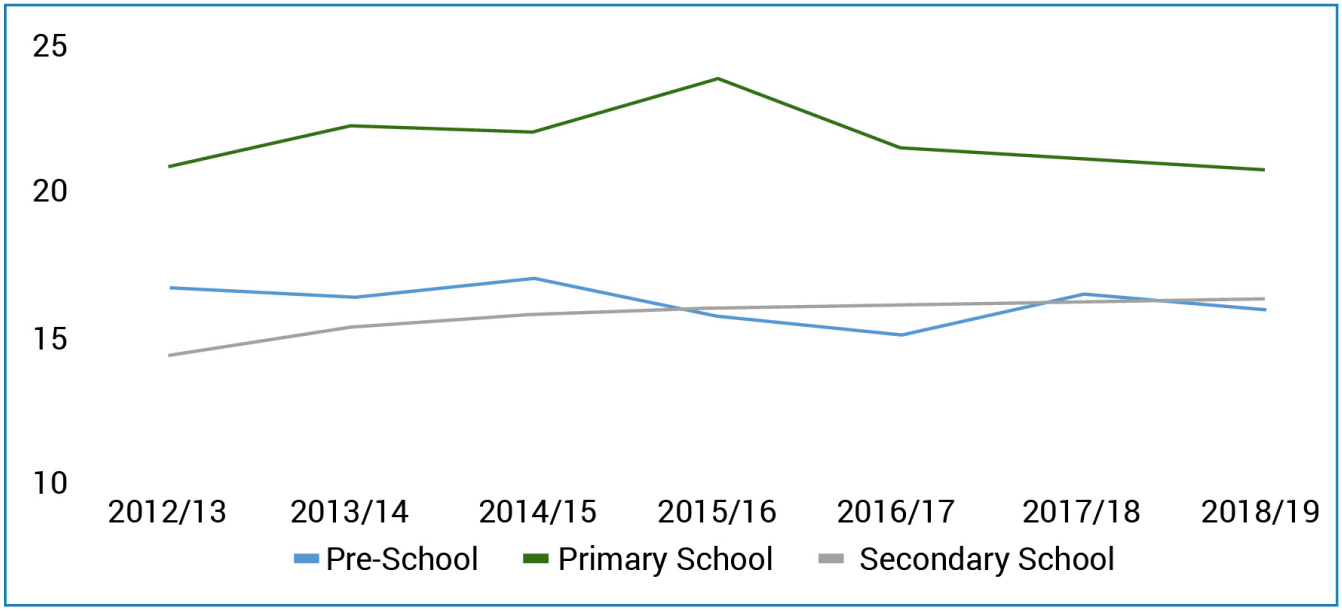
Belize has made considerable efforts and progress towards education, particularly encouraging enrollment in educational institutions. However there remains a need to further improve education resources and the overall infrastructure. An indicator of the efficiency of the education system lies in the ratio of pupil to teacher [10]. Higher ratios tend to indicate challenges where teachers may be overburdened, and students may not be receiving the attention they need to excel. The figure below looks at students to teacher ratios of the last few years which have remained relatively stable within the range of 15-17 students per teacher for pre-schools, 20-22 for primary schools and 14-16 for secondary education.

8 Statistical Institute of Belize: Labour Force Survey (2017)

9 Government Budget (2017-2023)

10 The student (pupil) to teacher ratio in Belize is the number of pupils divided by the amount of school teachers. It is generally considered better to have fewer pupils per teacher.

Figure 7: Pupil to Teacher Ratio [11]



While there has not been a significantly large gender disparity in school enrollment, student enrollment in primary and secondary school have been higher for females than males. Secondary Education enrollment rates have been on an upward trend for both males and females, however driven higher by female enrollment. At an aggregate level, there are only minor differences between the ratio of girls' and boys' access to primary and secondary education.

Table 2: Total School Enrollment by Education Level and Sex[12]

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Males	**52,018**	**52,144**	**52,397**	**53,190**	**52,611**	**51,995**	**52,104**
Pre-School	3,764	3,790	3,780	3,887	3,701	3,626	3,726
Primary	35,287	35,043	35,042	35,296	34,790	34,439	34,079
Secondary	9,897	10,056	10,293	10,537	10,527	10,426	10,631
Jr. College	1,527	1,565	1,635	1,744	1,837	1,698	1,800
Universities	1,543	1,690	1,647	1,726	1,756	1,806	1,868
Females	**52,832**	**53,065**	**53,021**	**53,721**	**53,609**	**53,273**	**53,517**
Pre-School	3,636	3,711	3,725	3,731	3,760	3,723	3,759
Primary	33,525	33,026	32,665	32,788	32,508	32,026	31,914
Secondary	10,642	10,948	11,351	11,575	11,509	11,601	11,682
Universities	2,738	3,072	3,010	3,251	3,373	3,454	3,515

11 Statistical Institute of Belize (2018)

12 Ministry of Education Statistics 2018-2019

Further to this, another indicator of success of the education system lies in the percentage of teachers that have completed professional training in education. The percentage of trained teachers measures the number of teachers who have received formal training by the total number of teachers within the education sector workforce. For the year 2018/19, 52.1% of all teachers had received professional training at the preschool level, 82.3% of teachers had received training at the primary school level and 65.0% of all teachers had received training at the secondary level.

Table 3: Percentage of Trained Teachers 2018/19[13]

	Urban	Rural	Total
Pre-School Level	41.2	64.1	52.1
Primary Level	83.3	81.5	82.3
Secondary Level	66.3	61.6	65.0

6.2 SECTOR DEVELOPMENT NEEDS & POLICY MOMENTUM

Through an extensive review of key national plans, policy documents, development plans and stakeholder consultations, areas where sectoral development is needed was clearly identified and highlighted in this report.

1. Fully Trained Teacher Workforce: Expanding training programs for the teacher workforce to meet changing educational needs. While there is some level of training, there is a need to increase the percentage of teachers training to a 100% (fully trained teacher workforce).

2. Technical and Vocational Education Training: Technical and vocational training offer alternative educational paths for youths who wish to grow professionally. There are a total of six (6) technical and vocational training centers in Belize, however the number of students enrolled in these are very small, with highest concentrations being in the Orange Walk Area. As of 2019, only 856 students were enrolled in the program. The Government is seeking to invest in the development by matching training programs to the economic priorities of the country and reestablishing the working partnership between the public and private sectors through the National Council for Technical Vocational and Educational Training (NCTVET). Potential opportunities include establishing an ITVET Scholarship Fund to fully train 100 skilled workers every year. There is also potential for employing career guidance counsellors at each of the ITVETS in every district. Additionally, reestablishing the Belize Association for Career and Technical Education (BACTE). There is also potential for re-establishing the Rural Education Agriculture Program (REAP) as part of the primary and secondary school curriculum.

3. Digital Learning: The COVID-19 pandemic has dramatically impacted the way students learn. For some, there is limited or no access to digital learning and access to internet services. Due to the pandemic, the Government had recommended the use of online learning programs and open educational applications and platforms that teachers and students can utilize to reach learners remotely. However, for students who lack access to digital learning tools, it has also presented a challenge. In light of the pandemic, one of the key issues that were identified by the Ministry of Education included limited student access to technology (devices and internet access/services). Investment in Education Technology has potential to improve education quality, improve outcomes and lower costs.

13 Ministry of Education Statistics 2018-2019

Approximately 99.54% of the total population was estimated to have access to electricity. Though it is expected that there is a disparity between the access of urban and rural areas to electricity, rural areas only lagged slightly behind in 2017, where 98.34% of the rural population was estimated to have access to electricity. In Belize, electricity access is universal and widespread. Internet penetration is defined as the percentage of total population of a given country or region that uses the internet. In 2017 only 47.08% of Belize's population was estimated to be using the internet[14] . Global internet usage in 2018 was approximately 53.6% which was up from 28.2% of the population in 2010[15]. At the household level, 36.1% of households in Belize were estimated to have access to a computer in 2019, while 57.5% had access to the internet in their homes. While internet penetration has been continuously rising in Belize, the COVID-19 pandemic, and the associated measures such as social distancing has heightened the need for investment in Education Technology Platforms as a tool for continued and effective education.

Specific areas of focus for education reform in Belize include[16]:

- Education Financing Reform
- Early Childhood Education and Development
- Leadership, Administration and Teacher Training
- Special Education
- Higher Education and Development
- Technical and Vocational Education
- Technology

The Education Sector in Belize is overseen by the Ministry of Education and the sector's objectives are mandated through the Education Act 2017. On Average, only about 70% of teachers are professionally trained. Through recent amendments to the Education Act, it aims at a 100% trained teachers' workforce which will act as a requirement prior to obtaining a teacher's license. Until the 1990S, Belize did not have a four-year university system. Most of the colleges in Belize were two-year community college programs. Later in 2000, provisions were made for the development of a higher-level institution, namely the University of Belize. Additionally, a private college, Galen University was established. The University of the West Indies also offers courses in the Belize City Campus. While there have been efforts to expand tertiary level education, only about 16.2%[17] had completed up to tertiary level education in Belize.
The Technical and Vocational Education Training is also of importance which has not yet seen its full potential. The Government is seeking to increase enrollments in TVET education centres. There are 6 ITVETs in Belize (1 in each district). Total enrollment as at 2018/19 is only 753 students, with the highest concentration of students being enrolled in Orange Walk and lowest concentration being in the Toledo District (see table 4 below).

Table 4: Enrollment in ITVETs by District

District & Sex	2014/15	2015/16	2016/17	2017/18	2018/19
Belize	84	96	114	99	91
Cayo	174	213	171	144	167
Corozal	42	43	67	50	61
Orange Walk	173	230	240	292	295
Stann Creek	56	73	83	82	86
Toledo	48	29	48	62	53

14 Telecommunication Union Database, 2018

15 International Telecommunications Union, 2018

16 Plan Belize: Education (2020-2025)

17 Statistical Institute of Belize: Labour Force Survey (2017)

6.3 IOA 1
INVESTMENT IN TECHNICAL AND VOCATIONAL EDUCATION TRAINING

BUSINESS MODEL

Invest in scaling up training and specialization of existing training centres by offering different courses/programs to match priority sectors identified within the country such as (agriculture, services, energy, infrastructure, amongst others). This will help in reducing the gaps and inequalities in the workforce and as a result reduce unemployment within the country.

TICKET SIZE: USD 1 million - USD 10 million
INVESTMENT TIME FRAME: Medium Term (5-10 Years)
RETURN PROFILE: 10-15%
MARKET SIZE: ~1,100 students per year

MARKET ENVIRONMENT

Of the total student population in primary level education, over 1,000 (15.4%) Belizean Students a year do not successfully transition from Primary School Education to Secondary Level Education.

MARKET RISKS

Capital- Limited Investor Interest: Investments in technical and vocational education training and development is largely done by the Government with relatively little to no private sector participation, unwillingness to cover or contribute to program costs

ACTORS IN IOA SPACE

- Ministry of Education, Science and Technology The Ministry of Education, Culture, Science and Technology is the responsible body for ensuring that all Belizeans are provided with the opportunity to acquire the knowledge and skills and attitudes required for personal development and for full and active participation in the development of the nation.

SDG ALIGNMENT

SDG 4 - Quality Education
SDG 8- Decent Work and Economic growth
SDG 10- Reduced Inequalities

SDG INDICATORS

Indicator 4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex
Indicator 8.6.1 Proportion of youth (aged 15–24 years) not in education, employment or training
Indicator 10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 percent of the population and the total population

DEVELOPMENT NEED

An alternative educational path for youths who wish to grow professionally. The Technical and Vocational Education Training has not yet seen its full potential. The Government is seeking to increase enrollments in TVET education centres, 15.4% Belizean Students a year do not successfully transition from Primary School Education to Secondary Level Education.

PRIMARY SDG CURRENT LEVELS

Indicator 4.3.1 Participation rate: 49.3%-Males, 50.7%- Females (2019), Total formal Education + TVET Participation= ~33.27%

Indicator 8.6.1 Share of youth not in education, employment or training, total (% of youth population) in Belize was reported at 27.34 % in 2017

Indicator 10.1.1 -15% growth rate of gross national income per capita in Belize (2020)

FINANCIAL ENVIRONMENT

Fiscal incentives:

Currently, no identified fiscal investment, limited private sector interest in the technical and vocational education training (TVET) subsector.

POLICY ENVIRONMENT

Plan Belize:

Growing TVET participation and enrollments is central to the Government and Ministry of Education for improving access to education and post-school education training. The Government of Belize is seeking to increase enrollments in Technical and Vocational Education by investing in technical and vocational education and matching training programs to the economic priority sectors of the country

REGULATORY ENVIRONMENT

Education and Training Act (2010): The Ministry of Education, Culture and Science and Technology is responsible for equitable access to and efficiently delivered quality and relevant education, at all levels, for all Belizeans.

PRIORITY SUBREGION

Countrywide: Need for improvement and investment exists in all ITVETs located in each of the districts (6 ITVETS)

IMPACT RISKS

Stakeholder participation may be limited and lack of trained and specialized teachers in the priority sectors may act as a hindrance for the implementation of the business model

USERS/ BENEFICIARIES

People: Individuals seeking technical and vocational training and school leavers. This investment would largely benefit the student population who have either dropped out of high school or have only completed a primary level education.

Gender inequality and/or marginalization: female population with low education levels

Corporates: Enterprises/ organizations seeking trained employees in particular field/skillsets

Public sector: Ministry of Education, TVET schools

6.4 IOA 2
E-LEARNING PLATFORMS

BUSINESS MODEL

Invest in digital learning platforms to bridge the gaps in the education system and expand country-wide access to education.

TICKET SIZE: USD <500,000
INVESTMENT TIME FRAME: Short Term (0-5 Years)
RETURN PROFILE: GPM: >25%
MARKET SIZE: 105,604 students CAGR: 4%

MARKET ENVIRONMENT

As of 2019, approximately 105,604 students in total were enrolled in school

The Latin America e-learning market is expected to generate revenues of over $3 billion by 2023, growing at a CAGR of more than 4% during 2018-2023.

MARKET RISKS

Business - Supply Chain Constraints: Students and teachers access to digital learning and internet connectivity can be limited. This is particularly a constraint when seeking to make the investment in education technology platforms and for offering accessibility to those in rural areas.

ACTORS IN IOA SPACE

- Government: Ministry of Education, Science and Technology: The Ministry of Education, Culture, Science and Technology is the responsible body for ensuring that all Belizeans are provided with the opportunity to acquire the knowledge and skills and attitudes required for personal development and for full and active participation in the development of the nation.

SDG ALIGNMENT

SDG 4 - Quality Education
SDG 9- Industry, Innovation and Infrastructure
SDG 10- Reduced Inequalities

SDG INDICATORS

Indicator 4.1.2 Completion rate (primary education, lower secondary education, upper secondary education)
Indicator 4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex
Indicator 9.c.1 Proportion of population covered by a mobile network, by technology
Indicator 10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 percent of the population and the total population
9.3.2 Proportion of small-scale industries with a loan or line of credit

DEVELOPMENT NEED

The onset of the COVID-19 pandemic brought to light many challenges such as ensuring that students who do not have access to radio, television or technology were able to get copies of the paper-based lessons and assignments during the pandemic. SDG 4 is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, the SDG index shows that while scores are moderately improving, it is insufficient to attain its goal. Belize's overall score is 64.4 with 'significant challenges remaining'.

PRIMARY SDG CURRENT LEVELS

Indicator 4.1.2 Completion Rate: Primary: 96.2%, Lower Secondary: 69.60%, Upper Secondary: 49.4%

Indicator 4.3.1 Participation rate: 49.3%-Males, 50.7%-Females (2019), Total formal Education + TVET Participation= ~33.27%

Indicator 9.c.1 Nationwide coverage (~90%) network connectivity.

Indicator 10.1.1 -15% growth rate of gross national income per capita in Belize (2020)

FINANCIAL ENVIRONMENT

Fiscal incentives: Currently, no identified fiscal investment, limited private sector interest in the education space

POLICY ENVIRONMENT

In 2019, Digi Belize (Belize Telemedia Limited) in collaboration with Microsoft & the Ministry Of Education deployed devices to selected secondary schools as a part of a pilot project geared towards creating a digital learning platform for schools in Belize.

Plan Belize 2020: There is widespread support from the Government to apply technology inside and outside the classroom to support education to enable learning from home and/or remote areas of the country to expand access to education and reduce costs.

REGULATORY ENVIRONMENT

Education and Training Act (2010): The Ministry of Education, Culture and Science and Technology is responsible for equitable access to and efficiently delivered quality and relevant education, at all levels, for all Belizeans.

PRIORITY SUBREGION

Countrywide: E-learning platforms allow for greater access to education for individuals all over the country.

IMPACT RISKS

Students and teachers' access to digital learning and internet connectivity may be limited- only 47% of the population has been estimated using the internet which can hinder country-wide acceptance and effective use of digital learning platforms

USERS/ BENEFICIARIES

People: Individuals unable to access in person education (geographical distance, working individuals)

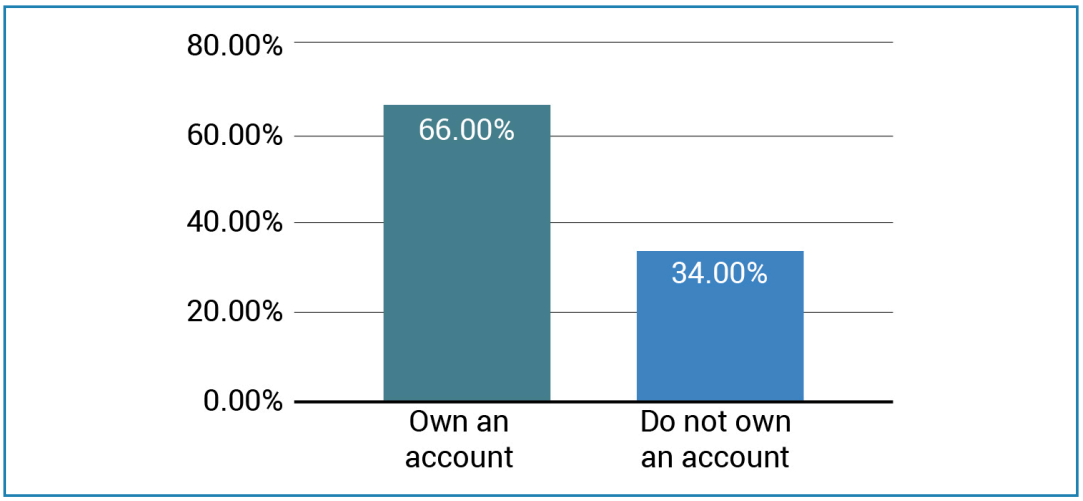
Corporates: Education technology platform providers and service providers providing solutions to complement/ facilitate digital learning.

7.0 SECTOR 2: FINANCIAL

7.1 SECTOR OVERVIEW

Financial Inclusion is a key enabler of the 2030 SDG Development Goals where it is featured as a target in 8 of the Sustainable Development Goals. Belize has made significant progress towards achieving financial inclusion in the country. The Central Bank of Belize, in collaboration with the Ministry of Finance launched Belize's National Financial Inclusion Strategy (NFIS) on September 11, 2020. With the launch of the NFIS, Belize joined over 60 other countries who have developed or are developing financial inclusion strategies. The NFIS was created to provide a roadmap for financial inclusion and to identify policy areas to help reach financial inclusion goals to promote universal access to bank accounts in Belize.

Figure 8: Proportion of Adults that Own an Account



The survey was conducted in 2019 to 2,174 adults (18 years or older) as a module in the Labor Force Survey[18]. In 2019, it was estimated that only 66% of adults had a deposit account (bank or credit union)[19], implying that 34% of adults were unbanked. The NFIS is being monitored and measured by increasing the portion of its adults who own deposit or transaction accounts from 66% in 2019 (as measured by the National Financial Inclusion Survey) to 80% in 2022. The target is to achieve sustainable development and increase financial inclusion, especially in rural communities.

The percentage of adults indicating they have an account at a bank or credit union were further grouped by area, gender, labor, education, and age. Across district comparisons revealed that adults from Belize and Corozal districts reported the highest level of account ownership, while Toledo District had the lowest number of people with account ownership. Employed Belizean adults are significantly more likely than those without a job to own an account (72.6% of employed adults reported owning an account, and only 47.7% unemployed reported owning one). Similarly, account ownership is higher among adults with secondary education (75.6%) compared to adults with primary education (61.2%)[20].

The level of savings in Belize is slightly above levels observed in the LAC region. According to the NFIS, about 58.3% of adults in Belize reported having saved or set aside money in the past 12 months. This shows that there has not been much of a significant change since 2014, which was estimated at 59.5% by the Global Findex. Information gathered from the survey also suggested that people had different modes of savings and did not only save in financial institutions.

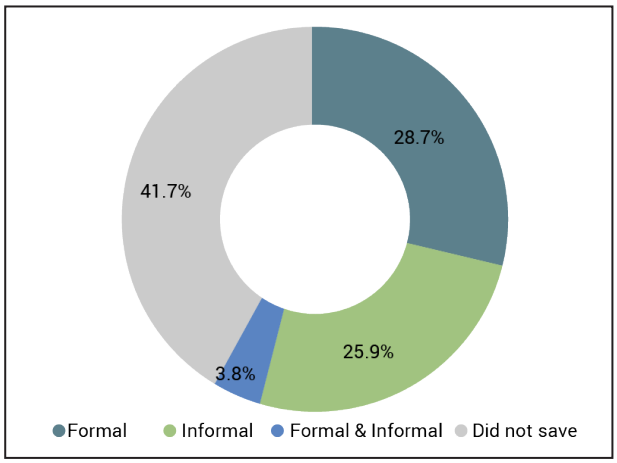
18 The Labour Force Survey (LFS) conducted by the Statistical Institute of Belize (SIB)

19 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022, Central Bank of Belize

20 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

Of those surveyed, only about 32.5% of adults reported having saved money (having a savings account) at a formal financial institution. Even among account holders, only 47.6% of them saved any money through formal channels in the past year (see figure below).

Figure 9: Savings in Belize[21]



Adults in all income groups use a variety of financial services. Many low-income adults, however, rely largely on informal methods (informal savings club, or with a person outside the family) of savings. According to the Global Findex, 62% of adults reported having an account-either at a financial institution such as a bank or through a mobile money provider. In high income OECD[22] economies, account ownership is almost universal, where 94% of adults reported having an account in 2014. In developing economies, however, only 54% did.

There have been institutional efforts to increase the number of people who have access to basic financial services through the roll out of a mobile wallet. Generally, Belize's population relies heavily on the use of cash to conduct business (~90% of financial transactions are cash based)[23] . Additionally, 53.3% of Belizeans lack financial literacy and 26.6% of Belizean primary school students do not receive basic financial literacy lessons.

Regarding MSME portfolio, commercial banks and credit unions categorize their portfolio based on loan size, as opposed to using a national definition of MSMEs[24] that is based on size of firms (by revenue and/or number of employees) which makes it difficult to get a full understanding of the potential gaps, limitations, and opportunities in MSME financing.

Table 5: MSMEs in Belize[25]

Type of Enterprise	Employees (Full Time)	Annual Sales (USD $)	Number of Enterprises (2016)	Percent of Total Enterprises (2016)
Micro	Owner-manager/ <5 employees	<37.5k	5,374	67%
Small	5-20 employees	<75k	1,565	20%
Medium	21-51	<125k	477	6%

21 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

22 The Organisation for Economic Co-operation and Development

23 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

24 Micro, small, medium enterprises

25 Statistical Institute of Belize. 2016. Business Establishment Survey.

7.2 SECTOR DEVELOPMENT NEEDS & POLICY MOMENTUM

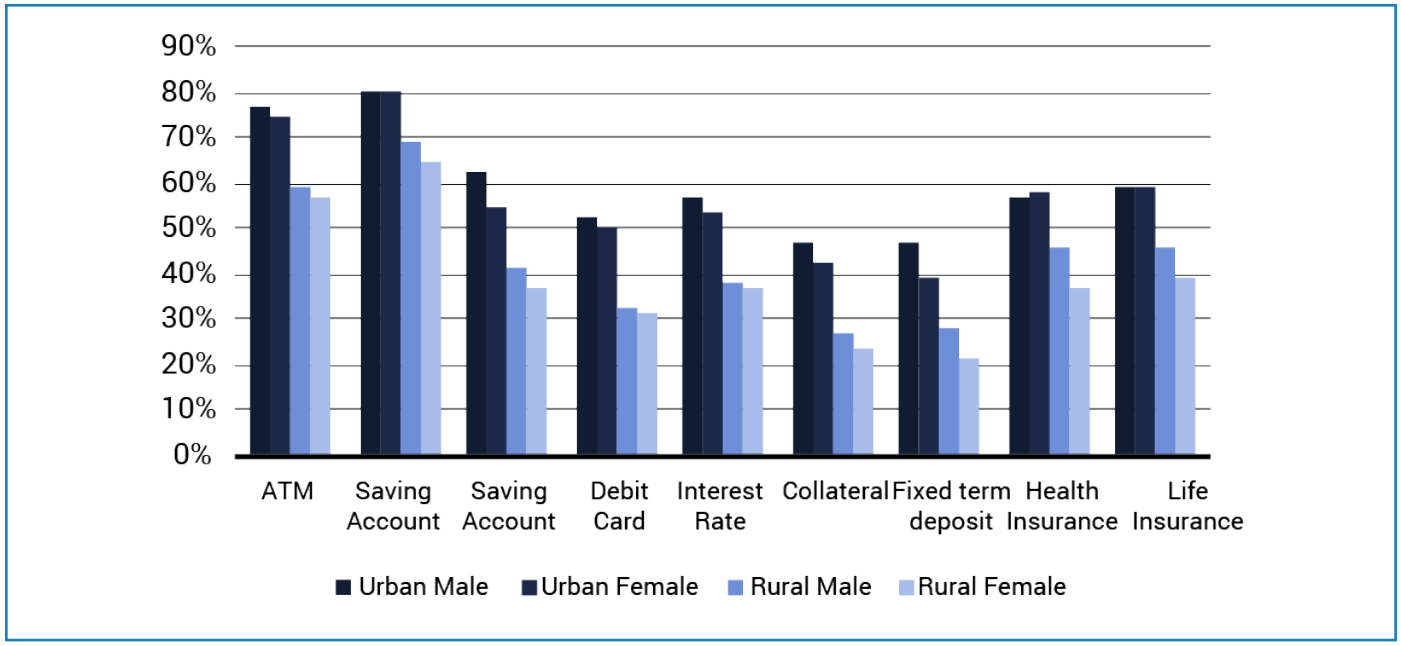
Through an extensive review of key national plans, policy documents, development plans and stakeholder consultations, areas where sectoral development is needed was clearly identified and highlighted in this report.

Belize's Growth and Development Sustainable Strategy (GSDS) outlines several actions that are aligned to the National Financial Inclusion Strategy (NFIS) in the following areas:

1. Development finance;
2. Secured transactions and collateral registry;
3. Alternative financing instruments (including venture capital and export financing);
4. Rural financing;
5. Efficiency and soundness to the financial system;
6. Access to finance and micro insurance;
7. Modernization of the financial infrastructure;

Financial Literacy: Financial literacy represents the level of aptitude in understanding personal finance which requires the understanding of key financial concepts required to manage personal finances. A lack of financial literacy can have devastating effects on the population and economy. Financial illiteracy hinders the development and progress to which consumers can engage and interact with financial products and services in the market. The Organization for Economic Co-operation and Development (OECD)[26] defines financial literacy as a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financing wellbeing. The NFIS conducted in 2019 measured the public's awareness of key financial concepts. On average, the respondents indicated that they had good knowledge for 4.4 of the 9 concepts. While 22.3% of the respondents reported having good knowledge of all nine (9) financial concepts, 20.1% of respondents indicated not having good knowledge of any of the financial concepts (see Figure 10 for full details).

Figure 10: Financial Awareness of Financial Concepts[27]



26 OECD INFE (2011) Measuring Financial Literacy

27 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

Financial Services: Financial services in Belize include a mix of formal, private (domestic and international), public, semi-formal and formal entities. The financial institutions are regulated by two (2) main institutions: The Central Bank of Belize (CBB) and the Office of the Supervisor of Insurance and Private Pension (OSIPP). As of 2019, Belize's financial system consists of five (5) domestic banks, nine (9) credit unions, three (3) international banks and ten (10) domestic insurance companies.

Table 6: Financial Systems by Financial Asset Value (as at Dec. 2019)[28]

Financial Institutions	USD $MN	% of GDP	% of Total Financial system
Domestic Banks	$1,759.5	94.0	64.5%
International Banks	$ 209.0	11.2	7.7%
Credit Unions	$ 561.0	29.7	20.4%
Non-bank Financial Institutions	$ 150.0	8.0	5.5%
Domestic Insurance Companies	$53.5	2.9	2.0%

Belize's financial system is bank dominated with bank assets totaling USD $1.75 BN or equivalent to 94% of GDP. Belize Bank, Belize Bank Corporation Limited (formerly known as Scotia Bank) and Atlantic Bank account for the largest shares of total assets. Credit Unions are the second largest institutions in asset value at USD $0.55 BN or 29% of GDP, followed by International Banks and Domestic Insurance Companies. The financial system in Belize has been decreasing over the past few years. As of December 2019, total assets of the financial system were estimated at 145.8% of Belize's GDP, in comparison to 2015, where total assets were estimated at 158.8% of Belize's GDP.

Access to Credit

At the global level, Micro, Small and Medium Enterprises account for approximately 90% of businesses and 50% of total employment[29]. In the Latin American and the Caribbean Region, MSMEs have consistently been strong economic drivers and they account for 99% of businesses in the region and more than 60% of regional employment and, in some low-income countries, they provide as much as 90% of formal employment and are responsible for more than a third of GDP.[30] In Belize, more than 80% of businesses are MSMEs and these provide roughly 70% of total private sector employment and income.[31] MSMEs are key actors in the achievement of the Sustainable Development Goals (SDGs) and, with adequate support, have the potential to generate more than US$10 trillion worth of economic opportunities and 400 million jobs worldwide by 2030.[32] In addition, MSMEs across the world empower women and marginalized communities through employment and are often the sole providers of healthcare, education, sanitation, and energy in some of the most remote places of the world.[33] MSMEs in Belize provide employment for women, youth, and rural residents - with particularly high women and youth involvement in the secondary and tertiary sectors. An estimated 43% of MSME owners are women, while 26% of MSMEs are associated with youth entrepreneurs.[34] The private sector with significant contribution from MSMEs is responsible for the export of goods and services which generates foreign exchange inflows.

However, MSMEs remain underserved in Belize in comparison to larger and more established firms. MSMEs often lack access to finance and economies of scale, have low levels of penetration into global supply and value chains, and enjoy very little coordinated support from the public and private sectors. Economic shocks, such as the ongoing

28 Central Bank of Belize (Dec. 2019)

29 World Bank. n.d. Small and Medium Enterprises (SMES) Finance.

30 Alibhai et al. 2017. What's happening in the missing middle? Lessons from financing SMEs. The World Bank.

31 Alibhai et al. 2017. What's happening in the missing middle? Lessons from financing SMEs. The World Bank.

32 UNDESA. n.d. Micro, small, and medium-sized enterprises (MSMEs) and their role in achieving the Sustainable Development Goals. UNDESA.

33 OECD. 2016. Development Co-operation Report 2016: The Sustainable Development Goals as Business Opportunities. OECD Publishing.

34 SIB. 2016. Business Establishment Survey

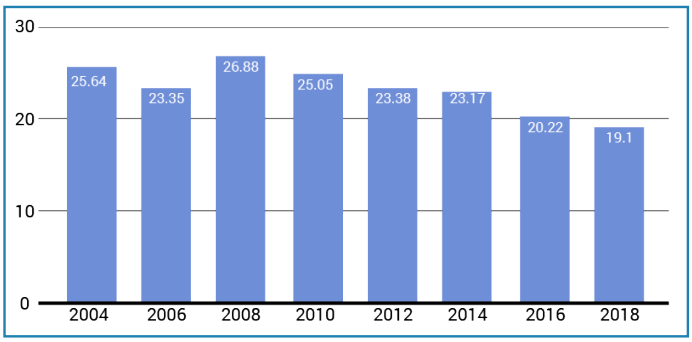
COVID19 pandemic, exacerbate liquidity constraints and further degrade already inadequate MSME safety nets. To make matters worse, the Covid-19 pandemic continues to threaten the decades of progress and efforts made towards SDG-aligned development - of which MSMEs are key actors. Financing and investment, which play a critically important role in achieving the SDGs through strategic capital deployment, have been strained, increasing MSME insolvency risk by as much as 10% in some countries.[35] Shaping outcomes in line with the SDGs will require sustained and collective effort from the private and public sectors, with a keen focus on MSMEs. Recognizing this need, the Government of Belize (GOB) launched its MSME support program, in which it allocated a total of USD $7.5 MN. Under this program, micro enterprises were eligible for grants of a fixed amount of USD $1,250, while small and medium enterprises were able to receive up to USD $7,500 and USD $12,500 in loans, respectively. MSMEs have been one of the sectors greatly hit due to current economic weaknesses created by the COVID-19 pandemic. Businesses have been affected by supply chain disruptions and low demand for their products and services due to the weakened consumer purchasing power.

According to the World Bank's Doing Business 2019, Belize ranks at 172nd out of the 190 countries on the ease of getting credit for business purposes. Belize lacks a credit bureau which might explain Belize's performance in this ranking. Per the 2014 Global Findex Survey, roughly 5.8 percent of adults reported borrowing for starting, operating, or expanding a farm or business. Anecdotal evidence suggests that many micro, small and medium entrepreneurs use personal accounts and loans for their business purposes[36].

While there are five (5) commercial banks in Belize and ten (10) credit unions that provide some type of financing for MSMEs. This is usually a challenge as commercial banks are primarily interested in security and the level of risk involved. The cost of financing for MSMEs are usually high and often MSMEs are unable to access the services of commercial banks due to high transaction costs and the requirements needed in order to obtain a loan from the bank. Due to the risk averse nature of commercial banks, it is unaffordable for small businesses to access finance assistance. The Development Finance Corporation (DFC) has been key in providing financing options for MSMEs in Belize. The DFC has rolled out agricultural loan programs in the past, and the NBB has started offering loans to small businesses at better terms and conditions than those offered by the market[37].

There is no data collected in regard to the actual amount or percentage of loans that go out directly to MSMEs in Belize. Credit Unions seem to provide smaller loans than commercial banks, implying that they are catering more towards smaller enterprises. In 2017, the average size of credit unions' commercial loans was USD $14,590, compared to USD $55,595 for commercial banks[38]. The Belize Trade and Investment Development Service (BELTRAIDE) is a statutory body of the Ministry of Economic Development, Petroleum, Investment, Trade and Commerce that is responsible for supporting MSME development and support them in developing business skills, networks, and financial knowledge, while working alone with financial institutions to expand MSME financing.

Figure 11: Commercial Bank Branches (per 100,000 adults)[39]



35 UNESCAP. 2020. Assessment of the impact of Covid-19 on MSMEs, and especially women-led MSMEs, in Viet Nam. UN Economic and Social Commission for Asia and the Pacific

36 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

37 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

38 National Financial Inclusion Strategy Drafting Committee (2019) Belize National Financial Inclusion Strategy 2019-2022

39 International Monetary Fund: Financial Access Survey (2019)

Digital Payment Infrastructure

The National Financial Inclusion Strategy indicated that while all commercial banks are currently offering banking and mobile services, there is still a low level of uptake. Credit Unions have now been working on the infrastructure to offer mobile and online banking services. Mobile banking represents a significant opportunity to expand access. As of 2018, approximately 67% of Belizeans had a mobile connection and 30.9% had mobile internet access. There are two (2) mobile operators in Belize: Belize Telemedia Limited and Speednet Limited. While none of these market participants are currently offering mobile wallet services, there have been thoughts surrounding the implementation of a mobile wallet solution. The Belize Bank Limited launched E-Kyash (mobile wallet) in the beginning of August. While the actual number of registered users is still unknown, it is expected to gain traction in the public, especially in rural communities where access to banks, ATMs and other financial services are limited. The development of a mobile wallet presents opportunities for greater inclusion for the unbanked population such as the rural population, lower-income population and those engaged in micro, small and medium enterprises (MSMEs). MSMEs contribute at least 70%[40] of employment in Belize, however, despite this, many small business workers who do not have easy access to financial services. There is an opportunity for more innovation to create digital payment solutions and products that can target segments of the market who lack access to financial services and to MSMEs. Majority of MSMEs are in the informal sector, which through the mobile wallet presents an opportunity for them to join the formal economy. The digital ecosystem can provide MSMEs with different opportunities such as speed of transaction, access to credit, paying taxes, receiving government subsidies, etc.

40 Statistical Institute of Belize Establishment Survey (2016)

7.3 IOA 3
BLENDED FINANCE ENTERPRISE FUND

BUSINESS MODEL

Venture capital and angel financing serve as a critical role in private sector development and innovation. The Blended Finance Enterprise Fund will operate to broaden the access to financing for MSMEs through a combination of grant and loan financing.

TICKET SIZE: > USD 10 million
INVESTMENT TIME FRAME: Long Term(10+ Years)
RETURN PROFILE: IRR: 5% - 10%
MARKET SIZE: 7,000 business establishments
> USD 1 billion in private sector income

MARKET ENVIRONMENT

As of 2016, there were 7,000 business establishments in Belize per the Statistical Institute of Belize Business Establishment Survey Report

US $1.1B in private sector income in 2019

MARKET RISKS

Capital - Limited Investor Interest: Belize's financial system is underdeveloped with no venture capital/ angel investment facilities to date.

ACTORS IN IOA SPACE

- Investment firms and fund managers
- Private investors
- Ministry of Finance
- Multilateral organizations: Inter-American Development Bank (IDB) World Bank and Caribbean Development Bank (CDB)
- Development Finance Corporation (DFC)
- NGOs

SDG ALIGNMENT

SDG 8: Decent Work and Economic Growth
SDG 9- Industry, Innovation and Infrastructure
SDG 10: Reduced Inequalities

SDG INDICATORS

Indicator 8.1.1 - Annual growth rate of real GDP per capita
Indicator 8.2.1 - Annual growth rate of real GDP per employed person
Indicator 10.1.1 - Growth rates of household expenditure or income per capita among the bottom 40% of the population and the total population
Indicator 8.3.1 Proportion of informal employment in total employment, by sector and sex
Indicator 9.3.2 Proportion of small-scale industries with a loan or line of credit

DEVELOPMENT NEED

Financial diversification and inclusion are top national priorities for Belize. Both objectives are closely linked with Belize Growth and Sustainable Development Strategy and speak to the assessment and adoption of alternative financing instruments (including venture capital).

PRIMARY SDG CURRENT LEVELS

Indicator 8.1.1: -1.6% annual growth rate of real GDP per capita (2019)
Indicator 8.2.1: -2.7% annual growth rate of real GDP per employed person (2019)
Indicator 10.1.1: -15% growth rate of gross national income per capita in Belize (2020)
Indicator 8.3.1 About 42.1 percent of all employed persons were in informal employment.
Indicator 9.3.2 Belize: Small firms with bank credit, percent of all small firms in 2010: 43.7 %, Bank credit to the private sector as percent of GDP 2020: 63.77%

FINANCIAL ENVIRONMENT

Fiscal incentives exist in the business process outsourcing (BPO) industry through reduced taxes. Venture capital and angel investing facilities could support additional growth within the BPO industry in Belize to exploit market opportunities in a global market projected to grow by US $40 billion between 2021 and 2025. Incentives also exist for export-oriented enterprises through the DPA program administered by BELTRAIDE and overseen by the Ministry of Finance.

POLICY ENVIRONMENT

Generating jobs and livelihoods and promoting economic growth is a top priority for Belize and is identified as such in the following policy documents: Belize's Growth and Sustainable Development Strategy, Plan Belize, Horizon 2030 and the Economic Recovery Strategy

REGULATORY ENVIRONMENT

VC/ Angel Funds would have to abide by national AML/ CFT regulations. In addition, capital exchange controls may cause some timing issues with the repatriation of funds, in the case of international investors. There is currently no antitrust or competition legal regime in place in Belize

PRIORITY SUBREGION

Enterprise Fund would support innovation and growth across all industries and jurisdictions within Belize.
The Fund would be able to support industries including tourism, agriculture, manufacturing, business process outsourcing, and real estate development.

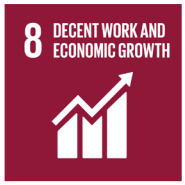
IMPACT RISKS

Execution risk - Activities are not delivered as planned and do not result in the desired outcomes. This is possible if the VC fund is unable to attract investment to build capital.

STAKEHOLDERS IMPACTED

People: Users and beneficiaries include entrepreneurs and business owners who have limited access to affordable financing options - especially at startups. With a vast majority of Belizean businesses traditionally being MSMEs, the potential for pooled portfolio investment can support new economic activity and promote commercial activity across the various sectors of the Belizean economy while also providing at-market returns for investors.

7.4 IOA 4
EXPORT/ IMPORT BANK



BUSINESS MODEL

EXIM banks are government or semi government agencies that ensure the safety and growth of a country's foreign trade. Facilitating easier finances for foreign trade, trade rules and conditions are some of the functionalities of an EXIM Bank. This could facilitate expansion of agricultural exports as well as streamline the procurement of key inputs of production. DFC is the only development bank in Belize, and with support from the private sector can establish a trade finance subsidiary to support trade finance in Belize.

TICKET SIZE: > USD 10 million
INVESTMENT TIME FRAME: Medium Term (5-10 Years)
RETURN PROFILE: GPM: >25%
MARKET SIZE: 7,000 business establishments
> USD 1 billion in private sector income

MARKET ENVIRONMENT

As of 2016, there were 7,000 business establishments in Belize per the Statistical Institute of Belize Business Establishment Survey Report

MARKET RISKS

Capital - Limited Investor Interest: A lack of trade finance is a significant non-tariff barrier to trade, particularly (but not exclusively) in developing countries. Considerations include whether to locate the scheme within the operations of the Development Finance Corporation (DFC) or to form a joint venture subsidiary.

ACTORS IN IOA SPACE

- Ministry of Finance
- Development Finance Corporation (DFC)
- Central Bank of Belize (CBB

SDG ALIGNMENT

SDG 8: Decent Work and Economic Growth
SDG 10: Reduced Inequalities

SDG INDICATORS

Indicator 8.1.1 - Annual growth rate of real GDP per capita
Indicator 8.2.1 - Annual growth rate of real GDP per employed person
Indicator 10.1.1 - Growth rates of household expenditure or income per capita among the bottom 40% of the population and the total population

DEVELOPMENT NEED

Access to finance is a critical constraint to development in Belize. An EXIM Bank or Trade Finance facility can facilitate import and export activities and international trade transactions. It allows corporations and MSMEs to access a wide range of financial products. Small and medium sized companies use trade finance products to access working capital.

PRIMARY SDG CURRENT LEVELS

Indicator 8.1.1: -1.6% annual growth rate of real GDP per capita (2019)

Indicator 8.2.1: -2.7% annual growth rate of real GDP per employed person (2019)

Indicator 10.1.1: -15% growth rate of gross national income per capita in Belize (2020)

FINANCIAL ENVIRONMENT

There are five domestic banks in Belize with total assets of US$4.0BN. There is currently one development bank with assets of US$58.5MN, and eight credit unions with total assets of US$0.6BN.

POLICY ENVIRONMENT

Both the National Financial Inclusion Strategy and the Growth and Sustainable Development Strategy speak to the need for access to trade and export financing.

REGULATORY ENVIRONMENT

Applicable laws include the Domestic Banks and Financial Institutions Act, Exchange Control Act and the Money Laundering and Terrorism Prevention Act. This entity would require a license from the Central Bank of Belize to act as a financial institution and an authorized foreign exchange dealer.

PRIORITY SUBREGION

The Trade Finance Facility would be able to support large corporations and MSMEs across different sectors and industries countrywide.

IMPACT RISKS

Despite regulations in place, if consumer protection measures are not properly identified and implemented there is a risk of negative outcomes.

STAKEHOLDERS IMPACTED

People: Including entrepreneurs and business owners who have limited access to affordable financing options. Particularly MSMEs in Belize as they provide more than 80% of businesses are MSMEs and these provide roughly 70% of total private sector employment and income.

8.0 SECTOR 3: INFRASTRUCTURE

8.1 SECTOR OVERVIEW

Infrastructure was identified as a priority sector for Belize as it is considered vital for national development as it facilitates the development of human resources, enables trade, connects, and powers businesses, connects workers to jobs, creates opportunities for struggling communities and protects the environment from natural disasters[41]. The sector contributes to the achievement of SDG 3 (good health and wellbeing), SDG 6 (Clean Water and Sanitation), SDG 7 (affordable and clean energy), and SDG 11 (Sustainable cities and communities).

Belize's main planning document is the Growth and Sustainable Development Strategy (GSDS) which builds on the Horizon 2030 and is also linked to other master plans for transport, tourism, the national investment policy, and export strategy. The GSDS outlines critical factors for success within this sector which includes creating optimal national income and investment, adequate infrastructure (roads, port, energy, water and telecommunications).

Energy

The Public Utilities Commission (PUC) is the regulating entity responsible for electricity, water, and the telecommunications (mobile and internet) sectors in Belize. The PUC has the power to issue bylaws for the electricity sector in regard to determining tariffs, charges and fees for the transmission or supply of electricity. Both the water supply and electricity transmission and distribution companies are state-owned monopolies. Activities of the energy sector include electricity, water supply and liquified petroleum gas (LPG). Belize Electricity Limited (BEL) has a monopoly on transmission and distribution of electricity. The national grid connects all the districts and is interconnected with Mexico. The grid is supplied by local Independent Power Producers (IPP) utilizing hydro-el cxectricity, biomass, petroleum, and solar energy sources[42]. Although the industry is dependent on Mexico for approximately 37%[43] of electricity supply, Belize has significant renewable energy resources. However, Belize is faced with the challenges of high energy costs, high fossil fuel dependency and inadequate infrastructure and technologies.

Some of the barriers that prevent Belize's energy efficiency potential include[44]:

- Agency Barriers
- Information Barriers
- Regulatory Barriers
- Market Barriers
- Financial Barriers
- Skills Barrier (limited technical expertise required introduces a major barrier to exploring Belize's full potential in the energy sector and energy-related industries).

Water

The Belize Water Services Limited (BWS) is the national water and sewerage utility that was vested with the Assets and Liabilities of the Water and Sewerage Authority (WASA) in March 2001. The ownership structure of BWS is mixed with the Government of Belize (GOB) as the majority shareholder (82.59%) of total shares and the Social Security Board (SSB) holds 10% and minority shareholders, the remainder. BWS is also regulated under the Public Utilities Commission (PUC), the Water Industry Act (2001) an operating license issued by the PUC.

While Belize has seen significant improvements in access to water, it is still behind in achieving universal access to improved sanitation facilities[45]. There has also been some progress made in terms of wastewater collection and treatment in urban areas throughout the country and solid waste collection and final disposal in the northern region (Corozal and Orange Walk) and in the southern region (Stann Creek and Toledo).

41 Plan Belize (2020)

42 Belize Electricity Limited Annual Report (2020)

43 Belize Electricity Limited Annual Report (2018)

44 Inter-American Development Bank: The Energy Sector in Belize (2014)

45 Inter-American Development Bank: Water and Sanitization in Belize (2013)

Despite its improved performance, there still remain significant challenges associated with wastewater management in key tourist destination areas such as San Pedro and Caye Caulker. The company, through capital investments, is focusing on expanding the water network in various municipalities and replacing aged infrastructure to improve on service delivery. Major investments are required in water network expansions and in the improvement of wastewater treatment in these areas. BWS has invested approximately USD $1.4 MN on water mains upgrade/replacement countrywide and approximately $3.0 MN in water network expansion in 2019/20. The company expects to invest USD $36.0 MN during 2020-2025, inclusive of key projects amounting to USD $17.5 MN[46]. In 2020, BWS was able to raise USD $20.0 MN through a debenture issuance to the public.

Digital Infrastructure (Technology)

Digital infrastructure refers to the digital technologies that provide the foundation for an organization's information technology and operations. The COVID-19 pandemic has highlighted the importance and the need for different sectors to embrace technology in the delivery of goods and services. As of 2021, there are only two (2) internet and mobile service providers: Belize Telemedia Limited (BTL) and Speednet Communications Ltd. The Government has mandated the development of the E-Governance Strategy. There is potential for opportunities within the transformation of government services and technological innovation of the digital economy. Technology plays a critical role not only in education, government services and the health sector but also in the agriculture sector where there is need for technology to improve processes in irrigation, seed development, pest and disease control, green pesticides, etc. The Government expects the generation of 20,000 jobs in the services and technology sector[47].

46 Belize Water Services Limited Annual Report (2020)

47 Plan Belize: Economy and Job Policy Paper (2020)

8.2 SECTOR DEVELOPMENT NEEDS AND POLICY MOMENTUM

There have been many government initiatives and investments made to improve infrastructure development in Belize. Belize invested approximately USD $67 MN (3.9% of GDP) in infrastructure in 2015. Of which most of the investment was allocated to transportation (1.3% of GDP) and telecommunications (1.1% of GDP)[48].

Table 7: Challenges in the Infrastructure Sector[49]

Energy

Belize shows positive gaps in energy. In terms of access, the country is above the expected given the country's GDP per capita. The country reports a 97 percent rate of electrification in urban areas and 88 percent in rural areas.[50] However, according to a 2010 Enterprise Survey, many enterprises still identified electricity as a major constraint. Challenges identified include high electricity rates, issues in transmission and distribution of networks.

Water and Sanitation

The country showed mixed results in this sector, but overall, a positive gap. In terms of access, Belize has plentiful surface and groundwater resources with coverage of 99% and 96 % respectively, of urban and rural population[51]. The sustainability dimension shows a slightly positive gap attributed to the percentage of available freshwater, which is above the expected levels given the country's GDP per capita. On the other hand, the impact of business dimension shows a negative gap given that 20.7% firms report experiencing water insufficiencies, which is 5 percent higher than the worldwide average[52]. Grau and Rihm (2013) highlight how water and wastewater services face constant operational, maintenance, and institutional challenges in the country. In addition, Belize shows an overall negative gap in sanitation. The only positive gap is reflected in terms of access, with sanitation coverage of 97% and 91% , respectively, of urban and rural populations[53]. The quality and impact on the health dimension resulted in a negative gap given that sewerage coverage is limited mostly to a few urban areas, with only 11% of the population having access to the service. The sector faces additional challenges such as the need for wastewater treatment in touristic areas of the country and the small size and number of systems, which makes it difficult to adequately staff the service providers with technical and financial capacity to ensure those systems' sustainability.

Telecommunications

Belize faced an overall negative gap in the telecommunications sector. In March 2018, the number of fixed broadband connections in Belize was equivalent to a household penetration rate of 38%, below the regional average of 45% (Garcia, 2018). Quality shows a positive gap due to the country's internet servers, which are better than those found in countries with similar GDP per capita levels. However, digital adoption reflects a negative gap, given that only a small percentage of the population makes or receives digital payments and only 1% of the population paid utilities via a mobile phone. In addition, Belize has not taken advantage of e-commerce opportunities, as evidenced by the fact that only 27.7% of businesses had their own website in 2010, compared to LAC average of 47.3%. Recently Belize has started to tap into the potential of electronic payments such as mobile wallets which promotes financial inclusion. It is expected that through this service, many businesses will adopt this mechanism as an option for payment of goods and services (Vivid, 2018).

48 Inter-American Development Bank: Country Infrastructure Briefs: Central America, Mexico, Panama, and Dominican Republic (2019)

49 Inter-American Development Bank: Country Infrastructure Briefs: Central America, Mexico, Panama, and Dominican Republic (2019)

50 World Bank (2018)

51 UNICEF/ WHO, 2017

52 World Bank, 2010

53 UNICEF/WHO , 2017

8.3 IOA 5
WASTEWATER MANAGEMENT & TREATMENT PLANT

BUSINESS MODEL

Invest in the establishment, treatment, and or/installation of a wastewater treatment plant in high tourist destination areas (specifically Caye Caulker, San Pedro and Placencia). Public Private Partnerships (PPP) could be used to facilitate private investment with operation and maintenance by Belize Water Services Ltd (BWSL).

TICKET SIZE: > USD 10 million
INVESTMENT TIME FRAME: Medium Term (5-10 years)
RETURN PROFILE: IRR: 5% - 10%
MARKET SIZE: 6,430 customers

MARKET ENVIRONMENT

6,430 BWS customers in the key tourist areas such as Caye Caulker, San Pedro and Placencia

MARKET RISKS

Capital - CapEx Intensive: High initial investment requirements for this project

ACTORS IN IOA SPACE

- Belize Water Services Limited (BWSL)
- Public Utilities Commission (PUC)

SDG ALIGNMENT

SDG 6 - Clean water and sanitation

SDG INDICATORS

Indicator: 6.2.1 - Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water
Indicator 6.3.1 Proportion of domestic and industrial wastewater flows safely treated

DEVELOPMENT NEED

Given the importance of wastewater collection and treatment in areas that heavily rely on tourism, there is a need to invest in sewage collection and treatment. Belize has over 600 hotels, with Placencia, San Pedro and Caye Caulker having about 52% of the hotel establishments. As at March 2020, water demand is approximately 230 million US gallons per month. Over 60% of the water supplied is produced using conventional water treatment processes with rivers as the extraction sources. Satellite water wells are used for the majority of the other water systems; however, on the islands of Ambergris Caye and Caye Caulker, BWS distributes water which has been treated by Reverse Osmosis, an engineered process for converting seawater to drinking water.

PRIMARY SDG CURRENT LEVELS

Indicator 6.21 The percentage of the population using at least a basic sanitation service, such as an improved sanitation facility that is not shared with other households is 87.86% in 2017

Indicator 6.3.1 The total amount of water discharged is 3,515.98 million litres per year and 2,521.28 million litres (71.1%) are treated (2016)

FINANCIAL ENVIRONMENT

Public Private Partnerships (PPP) could be used to facilitate private investment with operation and maintenance by BWSL, benefitting investors with high return levels

POLICY ENVIRONMENT

While there is no specific Wastewater Policy, BWSL has been funded to prepare detailed designs to support this project and through the Government Plan Belize: There is strong support from the Government to promote investment in community-based infrastructure, such as health clinics, sports facilities, water systems, drains and run-off, main sewage and waste disposal systems

As part of Belize's Nationally Determined Contributions, an action item was recognized of importance which is to improve waste management processes to avoid emissions of up to 18 KtCO2e per year by 2030, in line with the national waste management strategy.

REGULATORY ENVIRONMENT

Public Utilities Commission (PUC)- The Public Utilities Commission regulates the electricity, water, and telecommunications sectors in Belize to efficiently provide the highest quality services at affordable rates, ensuring the viability and sustainability of each sector.

PRIORITY SUBREGION

Belize Water Services currently operates and maintains sewerage systems in three municipalities namely Belmopan, Belize City and San Pedro Town. None of the municipalities served by these sewerage systems enjoy 100% coverage. Placencia, San Pedro, Caye Caulker are tourist areas identified that lack the infrastructure associated with proper wastewater management

IMPACT RISKS

Unexpected impact risk given the negative implications of wastewater if required measures are not being taken

STAKEHOLDERS IMPACTED

People: Individuals living in those key tourist areas where wastewater is discharged without treatment
Planet: Natural environment less impacted by pollution
Public sector: Municipal Authorities

9.0 SECTOR 4: TRANSPORTATION

9.1 SECTOR OVERVIEW

Through consultations with key ministries and stakeholders, transportation was identified as another priority sector in Belize as it relates to different key sectors such as tourism and agriculture. The Comprehensive National Transportation Master Plan identifies Belize as a country with high development potential.
This identification is based on the country's wealth of natural resources on which its focused and headlined industries include agriculture and tourism. While realizing Belize's potential, it faces several challenges and limitations due to the country's weak transport infrastructure networks (roads, ports and aviation), which inhibits the performance of its related key sectors [54].

At the same time, the limited availability of resources that can be invested in the development of the transportation sector requires well-coordinated and holistically planned actions to ensure their efficient and effective use. Additionally, such projects require a large number of investments which would require support from both the public and private sector. The transport strategy for Belize was written in line with the Horizon 2030 report which provides the vision of a future Belize as "a country of peace and tranquility, where citizens live in harmony with the natural environment and enjoy a high quality of life" and the Growth and Sustainable Development Strategy 2016-2019 (GSDS) document that describes the actionable strategy to achieving the country's short-term development vision.

Ports and Maritime

Belize has two (2) main ports: Port of Belize, which is in Belize City and Port of Big Creek, located in the south, about 70 miles south of Belize City. Both seaports are privately owned. Port of Belize is the primary cargo entry port which is mostly for containers and manufactured consumer goods as well as fuel import. In terms of port cargo movements, in 2016 import and export movements were 781,367 and
446,140 tons respectively, distributed between the Port of Belize and the Port of Big Creek. In 2035 the expected import and export movements are forecasted to be 1,247,033 and 720,821 tons respectively[55].

Aviation

According to the Belize Department of Civil Aviation (BDCA), Belize has one of the busiest air spaces in Central America. There is a high number of small aircraft providing services to many domestic airports and combined with a lack of insufficient air traffic controllers, and the fact that, airports operate during
daylight hours only, airspace congestion can occur, resulting in increased risk of accidents. Part of the solution to the air traffic congestion is to use larger aircraft; however, current domestic aerodromes, particularly in San Pedro and Placencia, cannot handle larger aircraft due to space limitations. However, sufficient financial resources of domestic carriers for investing in larger aircraft also needs to be a consideration. In addition, these aerodromes currently lack basic safety and security facilities, such as adequate fencing, scanner controls, and infrastructure and systems for the separation of arrival and departure passenger flows. Belize only has one international airport located in Belize City, which is the primary entry for both business travelers and tourists, with most of the tourists then transferring to tourism destinations of San Pedro, Placencia and Caye Caulker via the domestic airlines. The air transport and tourism sectors are closely linked. The John Grief II Airport of San Pedro is one the busiest airports. However, the airport lacks the infrastructure to accommodate larger aircrafts. It is expected that passenger air traffic will grow in the coming years and the existing airport does not have the capacity to handle the increase in traffic growth.

54 Comprehensive National Transportation Master Plan (2018)

55 Comprehensive National Transportation Master Plan (2018)

Road Transport

There have been many government initiatives and investments made to improve infrastructure development in Belize. Belize invested approximately US $67 MN (3.9% of GDP) in infrastructure in 2015. Of which most of the investment was allocated to transportation (1.3% of GDP) and telecommunications (1.1% of GDP)[56]. The Growth and Sustainable Development Strategy (GSDS) outlines critical factors for success within this sector which includes creating optimal national income and investment, adequate infrastructure (roads, port, energy, water and telecommunications).

9.2 SECTOR DEVELOPMENT NEEDS AND POLICY MOMENTUM

The main problems and challenges identified in this sector are the following:

Ports and Maritime[57]:

- Institutional framework, capacity, and operations
- Outdated legislations
- Maritime administration shared between BPA, IMMARBE and Ministry of Natural Resources and Environment
- BPA requiring additional capacity building in several areas (legal drafting, IT and security, emergency response and marine salvage
- On ports capacity (limited available capacity for bulk and general cargo)

The Port of Belize faces infrastructure related challenges and limitations which is affecting its competitiveness and can potentially create issues in its supply chain as it soon meets its capacity. Container traffic is expected to grow to 70,000 by 2025 and the existing port is unable to cope with the capacity. The port configuration with limited space available at the King's Wharf and the long and narrow access trestle (which is also now aged) hampers the circulation of handling equipment, tractors and trailers trucks and forces tractors with trailers carrying containers to constantly transport containers between the berth and the container yard with only one narrow passing area, thereby hampering operational efficiency. There is possible emergence of more congestion for container and bulk cargo, with impact on costs for both imports and exports.

Aviation

The John Grief II Airport in San Pedro is the busiest of the regional aerodromes. The airport operates at a national ICAO Code 2B7 with a runway of 1,000 meters in length and 18 meters in width. The minimum runway width requirement for this aerodrome is 23 meters (75 feet). The airport has no parallel taxiway and a very small apron, which severely restricts aircraft movement on the ground. The existing San Pedro airport runway is limited to Cessna 208 (Caravan) sized aircraft and any runway extensions would be impractical, therefore an alternative site is needed to facilitate future traffic growth[58].

The main problems and challenges identified are the following:

- Congested Belizean air space, with a high number of small aircrafts operating, combined with a small pool of air controllers and airports operating during daylight hours only.
- Improvements needed at regional aerodromes, including measures to address security shortcomings (perimeter fencing, security procedures); urgent repair for Caye Caulker runway (under way); and long-term vision required for San Pedro and Placencia municipal airports.
- Institutional frameworks for civil aviation in Belize are not currently in line with ICAO recommendations.

Infrastructure improvements are needed in: San Pedro airport is surrounded by urban development, some of recent construction and has limited space for expansion to accommodate bigger aircrafts; the runway at Caye Caulker needs urgent repair, considerable capital investment is necessary at Caye Caulker; Placencia airport runway is badly eroded and there are no turning aprons or proper runway thresholds.

56 Inter-American Development Bank: Country Infrastructure Briefs: Central America, Mexico, Panama, and Dominican Republic (2019)

57 Comprehensive National Transportation Master Plan (2018)

58 Comprehensive National Transportation Master Plan (2018)

9.3 IOA 6
BULK PORT DEVELOPMENT (BELIZE)

BUSINESS MODEL

Investment in the expansion of the Port of Belize to cope with capacity limitation and traffic growth, reducing issues in the supply chain initially through private investment and eventual public participation on dredging.

TICKET SIZE: > USD 10 million
INVESTMENT TIME FRAME: Long Term (more than 10 years)
RETURN PROFILE: IRR: 10-15%
MARKET SIZE: 70,000 containers by 2025

MARKET ENVIRONMENT

Forecasted Containers at the Port of Belize by 2025: 70,000

MARKET RISKS

Market - Highly Regulated: Heavily regulated through laws and regulations as well as high initial investment costs can discourage private sector from entering the market.

ACTORS IN IOA SPACE

- Belize Port Authority (BPA)
- Ministry of Finance

SDG ALIGNMENT

SDG 9 - Industry, Innovation, and Infrastructure
SDG 14- Life Below Water

SDG INDICATORS

Indicator: 9.4.1- CO2 emission per unit of value added
Indicator: 9.1.2- Passenger and freight volumes, by mode of transport
Indicator 14.1.1 (a) Index of coastal eutrophication; and (b) plastic debris density

DEVELOPMENT NEED

The Port of Belize suffers from infrastructural limitations negatively impacting port productivity and competitiveness. The GSDS and the NDF emphasize the need for the transport sector to support the tourism and agricultural sectors' development with environmentally friendly and climate resilient and adaptable infrastructure and supporting policies, along with the active collaboration of the private-sector.

PRIMARY SDG CURRENT LEVELS

Indicator 9.4.1 CO^2 emissions embodied in imported goods and services: 0.59/capita

Indicator 9.1.2 In terms of port cargo movements, in 2016 import and export movements were 781,367 and 446,140 tons respectively, distributed between the Port of Belize and the Port of Big Creek.

Indicator 14.1.1 Belize Chlorophyll a concentrations year 2018:

high values of 0.53 and 2.29 µg /L of alpha chlorophyll were detected in the inner coastal lagoon (this references the reef lagoon i.e. our immediate coastal waters)

FINANCIAL ENVIRONMENT

Potential exists for a concession agreement between a Government Authority and a Private entity under the Public-Private Partnership (PPP). The Cabinet recently approved a draft PPP policy and the creation of a PPP unit to mobilize private sector capital that supports investments in infrastructure and other development projects that align with government's policy priorities for public benefit

POLICY ENVIRONMENT

The Comprehensive National Transportation Plan (2018) identifies the expansion/development of the port as of major importance to be able to cope with the capacity for the expected increase in container cargo traffic.

REGULATORY ENVIRONMENT

Belize Ports Authority Act (CAP 233):, the BPA controls port operations to serve the public interest; to regulate and control navigation within the limits of the ports and their approaches; to maintain, improve and regulate the use of such port services

PRIORITY SUBREGION

The Port of Belize is in Belize City and specializes in freight operations (Potential for development of the second berth and the bulk facility in the existing Port in Belize City). In 2016, the forecasted total Port of Belize City exports and imports were 251,280 tons and 671,488 tons, respectively.

IMPACT RISKS

Potential environmental risks linked to the dredging & risks related to execution of the project, however investment in marine transportation will promote trade and connectivity

STAKEHOLDERS IMPACTED

People: workers in the sector, customers, ship-owners, shipbuilders, terminal operators.
Planet: Reduced carbon emissions from freight transportation will benefit the environment
Corporates: Container importers and exporters, Sugar producers and exporters, Other bulk cargo importers and exporters
Public sector: Transportation service providers

IOA 7
AIRPORT DEVELOPMENT

BUSINESS MODEL

Invest in the development of a new airport in Ambergris Caye (San Pedro) as an international airport through a concession agreement which will allow for the accommodation of larger aircraft and to cope with the expected future demands as it is anticipated that there will be an increase in air passenger traffic.

TICKET SIZE: > USD 10 million
INVESTMENT TIME FRAME: Long Term (more than 10 years)
RETURN PROFILE: IRR:5-10%
MARKET SIZE: 206,731 passengers

MARKET ENVIRONMENT

Selected aerodromes yearly passenger movements forecasts 177,260 passengers by 2025 and 206,731 by 2035

MARKET RISKS

Capital - CapEx Intensive: Airports are capital-intensive investments. Irrespective of airport ownership model, the large capital outlay and the complexities involved in planning, getting approvals, and constructing new infrastructure means that there is a level of risk associated with the long-term horizon of the investment

ACTORS IN IOA SPACE

- Belize Airport Authority
- Ministry of Blue Economy and Civil Aviation,
- Belize Department of Civil Aviation

SDG ALIGNMENT

SDG 8 - Decent Work and Economic Growth
SDG 9-Industry, Innovation and Infrastructure

SDG INDICATORS

Indicator: 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate
Indicator: Indicator: 9.1.2- Passenger and freight volumes, by mode of transport

DEVELOPMENT NEED

The John Grief II Airport in San Pedro is the busiest of the regional aerodromes. The existing San Pedro airport runway is limited to Cessna 208 (Caravan) sized aircraft and any runway extensions would be impractical, therefore an alternative site is needed to facilitate future traffic growth.

PRIMARY SDG CURRENT LEVELS

Indicator 8.9.1 37.3% of GDP in 2019

Indicator 9.1.2 Selected aerodromes passenger movements in John Grief Airport (San Pedro) was 146,174 in 2016.

FINANCIAL ENVIRONMENT

Potential exists for a concession agreement between a Government Authority and a Private entity, through which the Government grants certain rights to the Private entity for a limited period under the Public-Private Partnership (PPP).

POLICY ENVIRONMENT

The Comprehensive National Transportation Plan (2018) identifies the aviation sector of importance and the need for development of the airport in San Pedro.

REGULATORY ENVIRONMENT

The Belize Department of Civil Aviation is the regulatory and oversight body in all civil aviation matters in Belize. Other laws and regulations applicable to aviation include:

Airport Authority (BAA) Act (CAP 238)

Civil Aviation Act (CAP 239).

Civil Aviation Security Act (2007). The Cabinet recently approved a draft PPP policy and the creation of a PPP unit to mobilize private sector capital

PRIORITY SUBREGION

The San Pedro Area is one of the busiest destinations for tourism in Belize, with the forecasted growth in air passenger traffic, the current airport does not have the capacity to accommodate the number of passengers and aircraft required.

IMPACT RISKS

Normal construction-related risks linked to airport development and construction and potential environmental impacts. Risks related to execution of the project

STAKEHOLDERS IMPACTED

People: Airline/aircraft operators will have the ability to serve the San Pedro with larger aircraft. In turn, passengers will benefit from enhanced safety and service levels/capacity (expected passenger traffic is 177,260 by 2025).

IOA 8
EV PUBLIC BUS TRANSPORT SYSTEM

BUSINESS MODEL

The development of a national EV public transport system will allow Belize to reduce its carbon footprint while also allowing for private sector investment in service provision. Battery powered Electric Buses (BEBs) are less expensive to maintain than diesel powered buses and do not produce any carbon emissions. The government would lease routes long term and bear the cost of operating the bus, while private investors would generate added revenue inside the bus.

TICKET SIZE: USD 1 million - USD 10 million
INVESTMENT TIME FRAME: Medium Term (5-10 years to generate return)
RETURN PROFILE: IRR: 10% - 15% ROI: 5% - 10%
MARKET SIZE: 58,000 passengers weekly

MARKET ENVIRONMENT

It is projected that by 2025, there will be more than 58 thousand passengers on public transportation per week in Belize. Consistent advancement in EV technology promises to continue to reduce prices and support BEB adoption that will reduce public spending on transportation.

MARKET RISKS

Market - Highly Regulated: Belize Electricity Limited is the sole distributor of electricity in Belize, maintaining a national grid that services more than 100 municipalities. BEB fleet charging stations would be required to connect to and purchase power from BEL.

Capital - Limited Investor Interest: To date there has been limited investor interest in EV public transportation given that investments would be CAPEX intensive and require fiscal and regulatory support and/ or concessions.

ACTORS IN IOA SPACE

- Government: Ministry of Infrastructure Development and Housing, Ministry of Public Utilities and Logistics, Ministry of Sustainable Development, Climate Change & Disaster Risk Management, Public Utilities Commission, Belize Electricity Limited

SDG ALIGNMENT

SDG 7 - Affordable and Clean Energy
SDG 9 - Industry, Innovation and Infrastructure
SDG 11 - Sustainable Cities and Communities
SDG 13- Climate Action

SDG INDICATORS

Indicator:7.1.2 Proportion of population with primary reliance on clean fuels and technology
Indicator: 9.4.1 CO2 emission per unit of value added
Indicator: 11.6.2 Annual mean levels of fine particulate matter (e.g., PM2.5 and PM10) in cities (population weighted)
Indicator 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities
Indicators 13.2.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change
Indicator 13.2.2 Total greenhouse gas emissions per year

DEVELOPMENT NEED

In 2017, more than 42,000 public transportation on Belizean roads per week. Forecasts show that number will almost double to 76,000 per week by 2035. With a typical diesel bus emitting more than 229,000 lbs. of greenhouse gases annually, switching to a BEB fleet would help reduce carbon emissions, mortality rates, and fine particulate matters considerably.

PRIMARY SDG CURRENT LEVELS

Indicator 7.1.2 In 2018, 83.0 % of the population relied primarily on clean fuels and technology.

Indicator 9.4.1 0.2 kg per PPP$ of GDP in 2018

Indicator 11.6.2 In 2016, the annual population-weighted average mean concentration of fine suspended particles of less than 2.5 microns in diameter (PM2.5) was 20.9 micrograms per cubic metre . This is above the maximum level for safety set by WHO of 10 micrograms per cubic metre.

Indicator 11.2.1 Satisfaction with public transport

49 % (2014)

Indicator 13.2.1 More than 140 countries have submitted new or updated nationally determined contributions (NDCs) under the Paris Agreement.

Indicator 13.2.2 Total greenhouse gas emissions (kt of CO2 equivalent) in Belize was 1,194.71 in 2017

FINANCIAL ENVIRONMENT

Uncertainty remains as to fiscal incentives for the importation of electric vehicles and a national strategy for the development and establishment of emissions-based taxes/feebates for imported vehicles is still in its very early stages.

POLICY ENVIRONMENT

Policy actions in Belize's Sustainable Energy Roadmap aims to shift the energy matrix away from fossil fuels to alternative renewable energy technologies.

Developing Belize's EV capacity is a national priority and outlined in Belize's Updated Nationally Determined Contribution. However, a national EV strategy does not exist as yet.

REGULATORY ENVIRONMENT

The Public Utilities Commission (PUC) is the sole regulatory agency for the electricity, water, and telecommunications sectors. EV infrastructure would have to meet national and international safety and accessibility standards.

PRIORITY SUBREGION

Investment needed for buses to operate within all six (6) districts and in urban areas. Main routes identified within inter district travelling (Belize City, Corozal, Orange Walk, Belmopan ,San Ignacio, Benque Viejo, Dangriga, Placencia, Punta Gorda

IMPACT RISKS

Factors such as policy incentives, consumer characteristics, availability of charging stations, travel distance can disrupt delivery of expected impact.

STAKEHOLDERS IMPACTED

People: With a more efficient bus system, persons will be able to have reliable transport to conduct daily activities (58,000 weekly passengers)

Planet: Less pollution, reduced carbon emissions. The NDC proposed a 20% reduction in fuel use by 2030

Corporates: Companies will have a reliable bus system for employees to utilize.

10.0 SECTOR 5: AGRICULTURE (FOOD AND BEVERAGES)

10.1 SECTOR OVERVIEW

Belize is divided into six administrative districts. For agricultural purposes, four agro-climatic zones are distinguished: 1) Northern Zone (Corozal and Orange Walk districts), 2) Central Coastal Zone (Belize District), 3) Central Inland Zone (Cayo District), 4) Southern Zone (Stann Creek and Toledo districts). Belize's total land area is classified into five grades, based on the land's potential for use and limitations (see Table 8). Notably, nearly two-thirds of the national land area is classified as Grade 4 and Grade 5 which are prone to erosion due to its uneven topography. Cultivation of these two grades is discouraged, because it increases runoff, reduces groundwater replenishment, and leads to degradation. However, although more than 30% of Belize's total land area is deemed suitable for farming with favorable climate for agriculture and abundant water resources, only 10% was being used for agriculture in 2012[59].

Table 8: Land Grade Classification[60]

Grade No.	Description	Land Coverage
1&2	Suitable for mechanized agriculture and can be used for cultivating most food and cash crops	16%
3	Requires substantial investment to generate acceptable returns and can be used for smallholder development	20%
4	Marginal land that can be used to produce forest and plantation crops	20%
5	Extremely marginal for agriculture and is mostly covered by forest	44%

Agriculture in Belize is characterized by three (3) main sub-sectors: 1) a fairly well-organized traditional export sector for sugar, banana, citrus and marine produce; 2) a more traditional, small scale farm sector, producing food mainly for local consumption; and 3) a well-integrated large-scale commercial sector (dominated by Mennonites)[61]. The sector largely contributes to the country's economic and socio-economic performance.

Belize's agriculture sector is highly export-oriented, with four (4) principal crops accounting for approximately 60% of total production value: oranges, poultry[62], sugarcane and banana[63]. On average, during the period 2015 - 2019, agriculture contributed an estimated 8.8% toward total GDP[64]. The country's main export partners during this period are seen in Figure 12[65]. It shows the United Kingdom (USD $75.6 MN) and United States of America (USD 51.2 MN) account for the most toward Belize's export income.

59 Source: Developing a Sustainable, Resilient and Inclusive Belize (IDB Group)

60 Source: Climate-Smart Agriculture in Belize

61 Source: Country Programming Framework for Belize: 2011 - 2015 (Food and Agriculture Organisation)

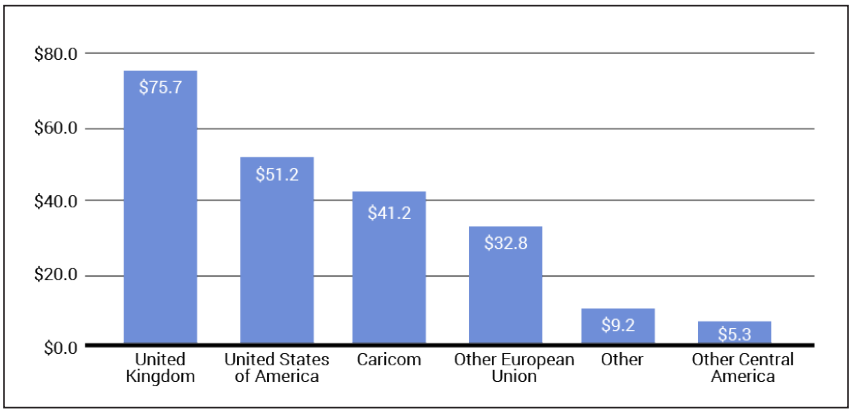
62 Not an export product

63 Source: Analysis of Agricultural Policies in Belize 2017 (IDB)

64 Average of 2015 - 2019 percent of total GDP by agriculture was calculated using SIB data. Figures are displayed in USD MN

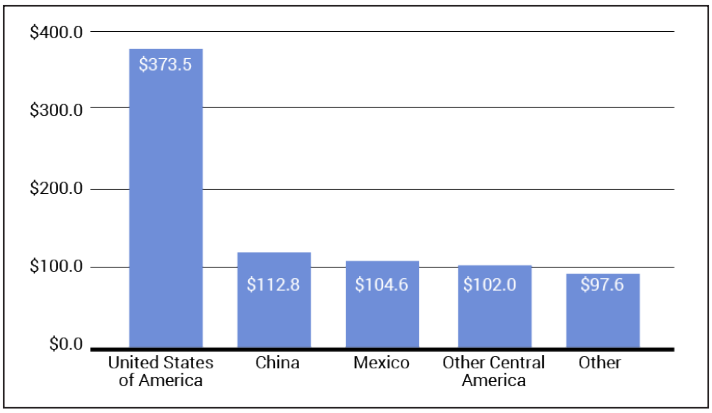
65 Other export partners include Mexico, Panama, Canada, China

Figure 12: Belize's Main Export Partners (2015 - 2019)[66]



Belize imports approximately US$325 per person per year worth of agricultural products, food, and beverages (mainly alcoholic). With a per-capita income of approximately US$3,917 (IMF 2020), import dependence is not relatively high as the country traditionally looks to its east for trade routes. Figure 13 shows the main import partners during the year 2015 - 2019 and average import costs[67]per partner. It shows the country's highest import expense is significantly with the highest corresponding to the United States of America (USD $373.5 MN).

Figure 13: Belize's Main Import Partners (2015 - 2019)



In 2020, Covid-19 led Belize to experience the largest annual output decline (14.1%) since its post-independence era[68]. Specifically, Covid-19 caused the primary output to fall by 2.4% as the agriculture, hunting and forestry rebounded marginally by 0.5% due to partial recovery in citrus deliverables and bananas while sugarcane harvest declined due to drought effects from the year before[69].However, stemming from a rebound in agriculture, fisheries and livestock production from adverse weather events and weakened demand, the country's economy is projected to rebound modestly. Notably, between January and June 2021, total imports totaled USD $474.7 MN while exports totaled to USD $100.2 MN[70].

The Government of Belize (GOB) imposes three relevant taxes that apply to imports that do not apply to domestic products: import customs duty, the Revenue Replacement Duty (RRD) and an environmental tax thus protecting domestic industry and serving as a revenue source[71]. While securing revenue through the three (3) taxes, the GOB has maintained a history of allocating less than 3% of its budget to the agriculture sector.

66 Average of export partners during 2015 - 2019 was calculated and ranked

67 Figures are displayed in USD MN

68 Source: 2020 Annual Report and Statement of Accounts (Central Bank of Belize)

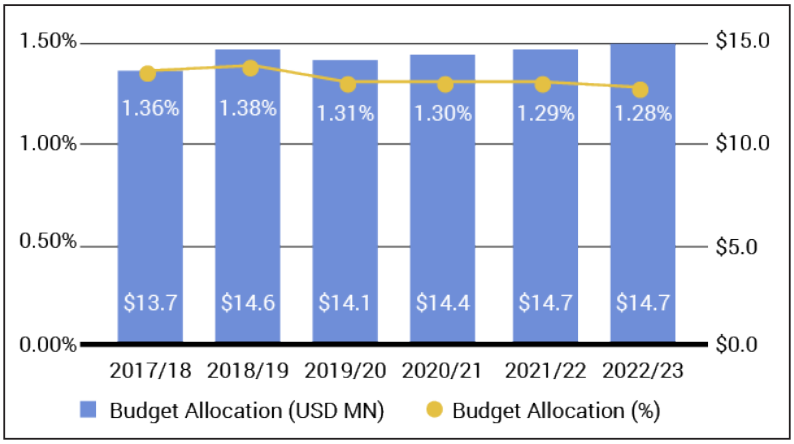
69 Source: 2020 Annual Report and Statement of Accounts (Central Bank of Belize)

70 Source: External Trade (Statistical Institute of Belize)

71 Source: Analysis of Agricultural Policies in Belize 2017 (IDB)

Figure 14 shows the government's budget allocation to the Ministry of Food and Agriculture, Fisheries, Forestry, Environment and Sustainable Development for the year 2017 - 2023.

Figure 14: Government Budget Allocation to Ministry of Food and Agriculture, Fisheries, Forestry, Environment and Sustainable Development



BLUE ECONOMY (AQUACULTURE)

Belize's economy is reliant on its natural resources for many of its sectors. The Belize Blue Economy strategy realizes the importance of enhancing growth and economic development for these natural resources. Belize has also recognized the importance of maintaining healthy marine ecosystems while maximizing benefits of harnessing the ocean's bounty[72]. This is essential for continued economic growth in several sectors, such as fisheries, seafood processing, aquaculture, and tourism. It has long been recognized that Belize's main challenge is applying changes to marine sectors to address the high international trade standards. This is mainly attributed to the lack of resources (mostly financial), which constrains the industry to overcome non-tariff barriers, coupled with the impacts of climate change and risk of natural disasters such as hurricanes[73].

10.2 SECTOR DEVELOPMENT NEEDS AND POLICY MOMENTUM

Efforts to improve the sector have been recognized through the development of the National Agriculture and Food Policy of Belize (2015 - 2030). The document outlines the ministry's main objective being to provide an environment that is conducive to increasing production and productivity, promoting investment, and encouraging private sector involvement in agribusiness enterprises in a manner that ensures competitiveness, quality production, trade, and sustainability. It further identifies five (5) pillars to achieve the policy's main objective:

1. Sustainable Production, Productivity and Competitiveness: targets areas of production
2. Market Development, Access, and Penetration
3. National Food and Nutrition Security and Livelihoods
4. Sustainable Agriculture and Risk Management
5. Governance Accountability, Transparency and Coordination

Although agriculture is vulnerable to external shocks, Belize's economic and socio-economic performance relies on its success. However, the country continues to face recurring development needs that limit incentivizing further investment.

Market and Transport Barriers

Belize is a uniquely positioned country thus leveraging membership within two regional movements: the Caribbean Community (CARICOM) including Single Market and Economy Agreements and the Central American Integration System (SICA).

72 Source: Oceans Economy and Trade Strategy: Belize Marine Fisheries and Seafood Processing (UNCTAD)

73 Source: Oceans Economy and Trade Strategy: Belize Marine Fisheries and Seafood Processing (UNCTAD)

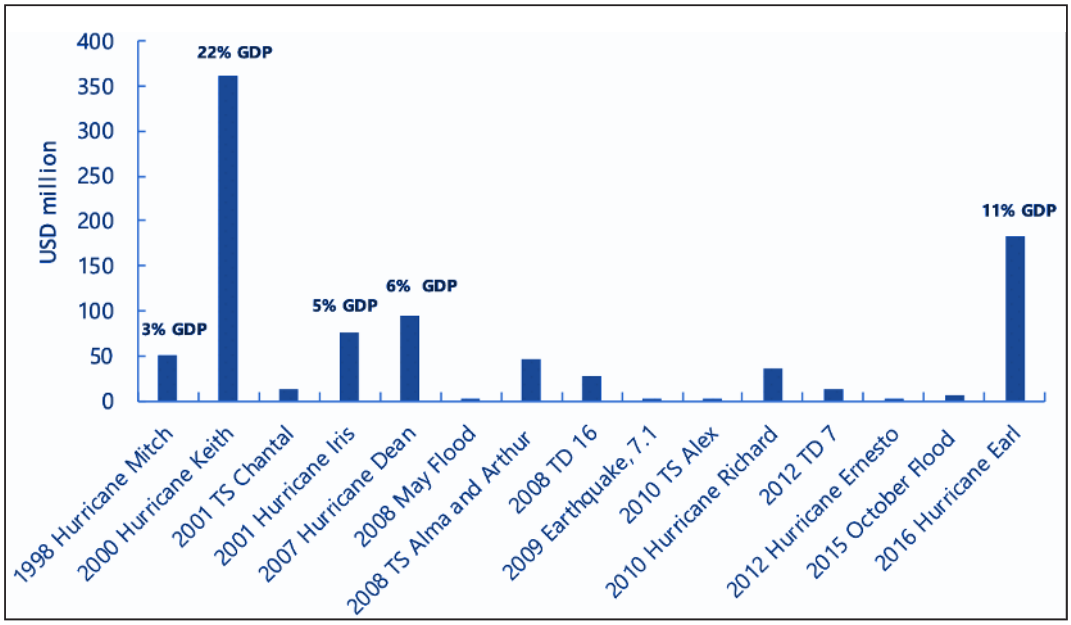
Belize is also a member of three regional agricultural institutions: Caribbean Agricultural Research and Development Institute (CARDI), Inter-American Institute for Cooperation on Agriculture (IICA) and Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA). Additionally, Belize has partial scope agreements (PSA) between three (3) countries: Guatemala, Mexico and Taiwan. Despite memberships, local farms have limited ability to market and transport existing produce. GOB has acknowledged this constraint and intends to strengthen trade policies within the region and work with the associations of the 4 traditional exports: sugar, citrus, banana, and shrimp[74]. GOB also committed to improving Belize's trade and market intelligence for international access and finding niche markets for the export of the non- traditional commodities[75].

Additionally, the country has no centrally owned storage unit facility to facilitate farmers in securing produce for transport. This barrier hinders sales and exposes farmers to lose crops and revenue. As a result, GOB has outlined improving storage and logistic facilities as a priority within the agriculture sector[76].

Climate Change

Belize is highly exposed and vulnerable to the effects of climate change. Among small states, Belize ranks third at risk for natural disasters and fifth at risk from climate change[77]. The country's geographic location leaves it exposed to the risk of rising sea levels and more frequent and more intense tropical storms, both of which lead to flooding that frequently results in human and material losses, including substantial losses within the agricultural sector. Figure 15 shows the losses from natural disasters in Belize since 1995.

Figure 15: Losses from Natural Disasters in Belize since 1995[78]



74 Source: Plan Belize: Agriculture (2020)

75 Ibid.

76 Source: Plan Belize: Agriculture (2020)

77 Source: Climate Change Policy Assessment: Belize 2018 (International Monetary Fund)

78 Source: Climate Change Policy Assessment 2018 (IMF)

Climate projections for Belize suggest that temperatures could rise 1.3 °C by the 2030s, 1.8 °C by 2050, and 2.1 °C by 2070[79]. Climate models also show that rainfall is likely to decrease throughout the country, with decreases ranging from 7% in the northern zone to 10% in the southern zone[80]. Thus, strengthening information systems to allow evidence-based decision-making on climate change through diversification and innovative climate-smart systems is an essential development need that GOB has outlined as a priority[81].

Agriculture Finance

Agriculture finance remains scarce and expensive in Belize. Due to a lack of credit histories, high price volatility, uninsured natural or health hazards and the lack of property rights, banks are hesitant to provide affordable finance to farmers who are also generally unwilling to offer the high valued collaterals that the banks and credit unions demand[82]. As a result of low savings and limited access to finance, international standards and practices are further from being met. Currently, the levels of investment in the agricultural sector are insufficient to achieve national development goals. GOB has also recognized the high tax levied to the local farmer and intends to review the entire tax system and enact reforms to have a simplified, fair, efficient, and development-driven system[83].

79 Source: Climate-Smart Agriculture in Belize

80 Ibid

81 Source: Plan Belize: Agriculture (2020)

82 Source: Developing a Sustainable, Resilient and Inclusive Belize 2020 (IDB)

83 Source: Plan Belize: Agriculture (2020)

10.3 IOA 9
AQUA PROCESSING PLANT

BUSINESS MODEL

Investment from an Ocean Certified sustainable company to explore deep sea fishing for sales and distribution. This would strengthen the value chain of Belize's marine products and increase seafood exports. The private investor would leverage the country's export partners, trade agreements (eg CARICOM) and vast marine diversity the country has.

TICKET SIZE: USD 1 million - USD 10 million
INVESTMENT TIME FRAME: Long term (more than 10 years)
RETURN PROFILE: GPM: 15% - 20%
MARKET SIZE: > USD 1 billion

MARKET ENVIRONMENT

Global aqua product demand is USD23.8 BN. Belize's main aqua product export partners are Spain and the US who import 29.3% and 33.6%, respectively, from Belize.

MARKET RISKS

Market - Volatile: Aquaculture prices are generally volatile as supply varies per season.

ACTORS IN IOA SPACE

- Government: The Ministry of Blue Economy - responsible to ensure ESG and regulatory compliance is upheld.
- Ministry of Agriculture, Food Security and Enterprise.
- Private sector: The private investor will invest in the plant and all operations.

SDG ALIGNMENT

SDG 14: Life Below Water
SDG 8: Decent Work and Economic Growth
SDG 9: Industry, Innovation and Infrastructure
SDG 12: Responsible Consumption & Production

SDG INDICATORS

Indicator 14.7.1 Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries, and all countries
Indicator 8.2.1 - Annual growth rate of real GDP per employed person
Indicator 9.2.1 Manufacturing value added as a proportion of GDP and per capita
Indicator 9.2.2 Manufacturing employment as a proportion of total employment
Indicator 12.2.1 Material footprint, material footprint per capita, and material footprint per GDP

DEVELOPMENT NEED

The aquaculture industry of Belize has rapidly developed over the years. The sector plays a significant role within the country's economy as it contributes toward foreign exchange earnings, income generation, employment, nutrition, and food security. While exports of marine products have traditionally been done in shallow water, the exploration of deep slopes or high seas has been limited.

PRIMARY SDG CURRENT LEVELS

Indicator 14.7.1 Belize Fisheries department administered 9 Marine Reserves and 12 spawning aggregation sites (many of which overlap existing Marine Reserves) to be reserved and maintain sustainability levels to avoid overfishing. To this end, of the 119 MN USD global demand of marine products, Belize currently exports 52.5 MN USD. This is 0.27% of global demand.

Indicator 8.2.1 -2.7% annual growth rate of real GDP per employed person (2019)

Indicator 9.2.1 Manufacturing, value added (% of GDP) in Belize was reported at 5.3126 % in 2020

Indicator 9.2.2 ~10.21% (approximately 14,846 employed)

Indicator 12.2.1 Belize Domestic Material Consumption (DMC) tonnes per capita was 11.98 in 2015 (UNEP)

FINANCIAL ENVIRONMENT

Currently no fiscal or other incentives that would facilitate investment in marine products.

POLICY ENVIRONMENT

Oceans Economy and Trade Strategy: this report is to assess the economic potential and regulatory needs
for the marine fisheries (finfish) and seafood processing sectors (queen conch and spiny lobster), and to present an action plan that enables sustainable trade in those sectors.

Blue Economy 5 Year Strategic Plan: Belize recently formed its Ministry of Blue Economy who has drafted a Blue Economy Plan that outlines the ministry's mandate and strategy to achieve sustainable economic development for healthy marine environments and a strong economy derived from the wealth within the sea

REGULATORY ENVIRONMENT

The Belize Fisheries Act 210 establishes fisheries regulations and orders of marine reserves, deals with management of fisheries plans, fishing rights, granting of permits and licences, offences for the taking of certain marine species

PRIORITY SUBREGION

Marine cage farming systems within the inner Barrier Reef Lagoon, which has major protection from Hurricanes due to the various Cayes and reef formation in the surrounding seas

IMPACT RISKS

Aqua processing may expose environmental impacts to the overall marine environment.

STAKEHOLDERS IMPACTED

People: Fishers and technical marine professionals who do not have the resources to deep fish can leverage opportunity with the established plant.

Planet: reduced environmental impact if sustainable fishing practices adapted

Corporates: fishers and fisheries.

11.0 SECTOR 6: HEALTH

11.1 SECTOR OVERVIEW

Belize's healthcare system provides primary, secondary, and tertiary care and are provided by both private and public medical service providers. However, most of the healthcare system is provided by the public sector and administered by the Ministry of Health and Wellness[84] (MOHW). In 1998, the MOHW launched a health reform initiative which divided the Belize healthcare system into four (4) regions namely the Northern Health Region, Central Health Region, Western Health Region and Southern Health Region, headed by Regional Health Managers. Table 9 provides a summary of the major health institutions in Belize. It shows the Central Health Region consists of the largest population of the total population in 2019. Notably, all regional hospitals are in urban areas. The rural population is served by a network of health clinics, health posts and mobile health clinics. Most regional hospitals and some health facilities have government run ambulances which require paying a collection necessary to ensure sustainability for the government to subsidize.

Table 9: Major Healthcare Institutions

Regions	Major Institutions in the Region (Public and Private)	Population Coverage
Northern	Northern Regional Hospital (Orange Walk Town) Northern Medical Specialist Plaza (Orange Walk Town) Corozal Community Hospital (Corozal Town)	25.0%
Central	Karl Heusner Memorial Hospital (Belize City) Belize Medical Associates (Belize City) Belize Healthcare Partners (Belize City)	30.4%
Western	Western Regional Hospital (Belmopan) San Ignacio Hospital (San Ignacio Town)	24.3%
Southern	Southern Regional Hospital (Dangriga Town) Punta Gorda Hospital (Punta Gorda)	20.4%

In 1999, Belize's National referral hospital, the Karl Heusner Memorial Hospital (KHMH), was transformed from a public run entity to a Statutory Authority. The hospital receives funds from the government without much accountability. As such, management decisions are made by the Chief Executive Officer (CEO) and Statutory Board which includes government representation through the ministry's CEO and Director of Health Services. KHMH offers hemodialysis, neurosurgery, cardiology, cardiovascular surgery, neurology and basic service of general surgery, internal medicine, Obstetrics and Gynecology and Pediatric services. Furthermore, the Belize Health Information System (BHIS) is a home-grown IT solution that was borne out of the Health Reform initiative as a specific need and installed at KHMH in 2004. Since then, it has now been implemented in every public hospital, poly clinic and some health centers across the country. Additionally, since 2008, the BHIS has incorporated a pharmacy module which includes a formulary listing and medical supplies that has improved the capacity for management and monitoring for pharmaceuticals.

84 Formerly named Ministry of Health (MOH)

In addition to health systems, access to health care is dependent on whether there are resources to provide necessary care. Table 10[85] provides an overview of resources/ services and its coverage.

Belize recognizes health as an essential component of development. The National Development Horizon 2030 defines four pillars essential for improving the quality of life for Belizeans. In 2002, the National Health Insurance (NHI) scheme was piloted in the South Side of Belize district. The scheme was intended to make universal health care available to the population without any financial barriers. A general overview of the health status among Belizeans is based on five main indicators presented in Table 1[86].

It is important to note that health status depends not only on the provision of health care but also on the behavior of people and the environment in which they live[87]. As such, Table 12[88] below presents an overview of prevalence of risk factors or behaviors among Belizeans.

In addition to the determinants of health highlighted above, Belizeans face several nutritional practices such as high intake of fatty, sugary and salty foods, unbalanced diets, low fruit and vegetable consumption and overall poor choices. The leading causes of death in recent years were chronic noncommunicable diseases. Diabetes, cardiovascular disease, cancers and chronic respiratory diseases are responsible for around 40% of deaths, annually. Injures and external causes are responsible for 28% of deaths while communicable diseases such as HIV infection and acute respiratory tract infection account for 20%.

Belize's health system was historically heavily dependent on public financing. Presently, there is a growing private health insurance and private investment in health.

Table 10: Coverage and Services

Resource/Services	Coverage
Hospital Beds (per 1000 population)	1.3
Doctors (per 1000 population)	1.1
Nurses (per 1000 population)	2.3
Antenatal Care (% of women attending at least four antenatal visits during pregnancy)	93

Table 11: Health Status Indicators (2020)

Indicator	Health Status
Female Life Expectancy (years)	73.6
Male Life Expectancy (years)	67.9
Female Survival to Age 65 (% of population)	80.3
Male Survival to Age 65 (% of population)	67.6
Under Age 5 Mortality Rate (per 1 000 live births)	14.2

Table 12: Determinants of Health

Risk Factor or Behavior	Prevalence
Sanitation (% of population)	88
Access to Drinking Water (% of population)	98
Smoking (% of daily smokers)	8
Alcohol Consumption (liters per capita)	10
Overweight Adult Males (% of male population)	32
Overweight Adult Females (% of female population)	30

85 Source: OECD and The World Bank (2020) - Health at a Glance: Latin America and the Caribbean 2020

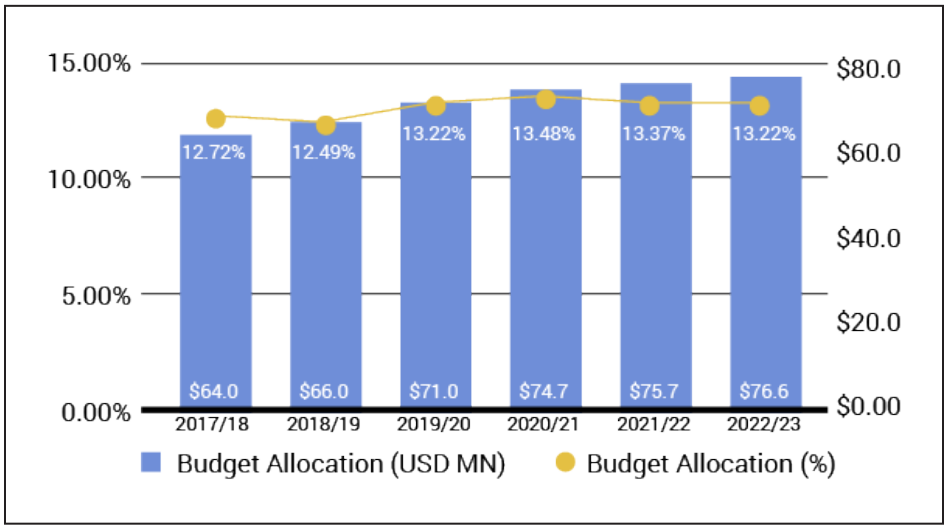
86 Ibid

87 Source: OECD and The World Bank (2020) - Health at a Glance: Latin America and the Caribbean 2020

88 Ibid.

On average, GOB has allocated approximately 13% of its budget toward the Ministry of Health and Wellness. Despite the prevailing Covid-19 threat, Figure 16 shows the decrease in health budget allocation in fiscal year 2021/22 and projected 2022/23. In 2020/21, GOB sharply increased and prioritized health expenditure and investment to bolster healthcare system capacity to support retrofit clinics in preparation for patients infected with the COVID-19 virus. These funds are expected to support the procurement of personal protective equipment, ventilators and testing and protective equipment.

Figure 16: Budget Allocation to the Ministry of Health



The priority programs with Technical Advisors within the MOHW Headquarters include the following[89]:

- Dental Services
- Drug Inspectorate
- Environmental Health including Public Health and Vector Control areas
- Epidemiology
- Family and Community Health
- HECOPAB
- Licensing and Accreditation
- Mental Health
- National Tuberculosis Program
- National Drug Abuse Control Council
- Nutrition
- Pharmacy
- Nursing
- Policy, Planning and Project Management

89 Source: Belize Human Resources for Universal Health Strategic Plan 2019 - 2024

11.2 SECTOR DEVELOPMENT NEEDS AND POLICY MOMENTUM

GOB recognizes healthy people as a foundation for national development and continues to prioritize mothers and children. A ten-year Health Sector Strategic Plan (2014 - 2024) was therefore created to provide an overall framework of health priorities. The Plan outlines the following seven (7) strategic objectives:

1. Integrated health services based on primary health care for improved health outcomes
2. Strengthening the organization and management of health services
3. Achieving greater equity, cost effectiveness and efficiency in the allocation and use of health resources (improved health financing to achieve universal health coverage)
4. Strengthen capacity for human resources for health planning to meet present and future health sector needs
5. Strengthening for the Belize Health Information System to support evidence-based planning in the provision and delivery of health care
6. Development of quality improvement framework to ensure stakeholder accountability
7. Efficient and effective health infrastructure development

A five-year Human Resource Strategic Plan was also developed. It focuses on the following five (5) strategic objectives:

1. Strengthen leadership and consolidate governance in human resources for health
2. Develop conditions and capacities in human resources for health to expand access to health and health coverage with equity and quality
3. Increase investment in human resources for health to increase the pool of qualified personnel, improve the health of the population and contribute to national development
4. Strengthen multi-sectoral collaboration to improve education system for human resources for health
5. Strengthen health workforce partnership to respond to the needs of the health system in transformation towards universal access to health and universal health coverage

Through extensive review of policy documents and consultations, development needs within Belize's health sector were identified.

Infrastructure

Belize has three private hospitals in Belize City offering specialized services in cardiology, dermatology, neurology, and neurosurgery; one private hospital in San Ignacio, with another private facility that has limited in-patient and surgical services. The country also has a network of private clinics throughout the country mostly operating using a group practice model instead of single practice. However, the increased population density of the country now requires more facilities to ensure coverage of all its citizens. Within the entire country, only one (1) mental health facility exists, three (3) regional hospitals and three (3) community hospitals. Table 13 shows further breakdown of regional hospitals, community hospitals, poly clinics, health posts and mental health facilities among health regions.

Table 13: Number of Institutions by Health Region[90]

Region	Regional Hospital	Community Hospital	Poly Clinic	Health Centre	Health Posts	Mental Health Facility
Southern Health Region	1	1	4	12	25	0
Western Health Region	1	1	3	3	9	1
Northern Health Region	1	1	1	11	14	0
Central Health Region	0	0	3	10	4	0

90 Source: Belize Human Resources for Universal Health Strategic Plan 2019 - 2024

Policy momentum presently exists to reconstruct the country's premier and national referral hospital, KHMH. The Plan Belize Manifesto highlights improvement of hospital's leadership and management, medical staff competence and remuneration, plan infrastructure and maintenance, financial management and accountability and transparency that needs to be made as well. Within the pipeline, partnerships to construct a hospital in Caye Caulker, Ambergris Caye, Punta Gorda Town and Belmopan have also been made.

Human Resources

A lack of human resources is a critical problem within Belize's health care system. Apart from nurses, laboratory technicians, pharmacists and social workers trained at the University of Belize (UB), the country does not have a medical school to train physicians. Table 14 presents specialists employed and specialists to population coverage. Considering the population density and number of total specialists, an estimated 1,200 health professionals are needed of which internal medicine specialist contributes the most to that gap.

Table 14: Specialists Employed and Specialists to Population Coverage[91]

Specialty	Existing Number of Specialists	Recommended Number of Specialists	Number of Specialists by Population (per 10,000)	Recommended Number of Specialist by Population (per 10,000)	Gap
Gynecology	14	22	0.4	0.6	0.2
Pediatrics	10	21	0.3	0.6	0.3
Internal Medicine	7	23	0.2	0.6	0.4
Surgery	10	14	0.3	0.4	0.1
Radiology	2	6	0.1	0.2	0.1
Anesthesiology	7	12	0.2	0.3	0.1
Total	50	98	1.3	2.6	0.12

The GOB has acknowledged a strategic investment in the health workforce is needed at primary and secondary levels[92]. As such, GOB intends to conduct an analysis of the low motivation and retention of graduated Belizean nurses thereby structuring an approach to implement a nurse training program.

Coverage and Services

Access to health care services is largely dependent on the amount of resources available. The table below illustrates the progress in the coverage and services available using the following indicators: 1) Medical Infrastructure Availability, 2) Human Resource Availability and 3) Coverage of Maternal and Child Care. The table below shows that while there has been progress to basic health care services, there is still a lack of full coverage to essential health services in the LAC region.

Climate Adaptation

The National Referral Hospital (KHMH) is located in Belize City. Given the fact that Belize City is especially prone to hurricanes and vulnerable to flood damage due to its low-lying land and exposed positions on the coast, there is a need to develop/locate a tertiary hospital elsewhere in the country. Belmopan has been identified as the target location for a referral hospital given that it is more inland and away from the coast which mitigates some of the climate-related risks.

91 Source: OECD and The World Bank (2020) - Health at a Glance: Latin America and the Caribbean 2020

92 Source: Plan Belize: Health Care (2020)

Table 15: Coverage and Services Statistics[93]

Coverage and Services	Belize	LAC	OECD
Hospital Beds*	1.3	2.1	4.7
Doctors*	1.1	2.0	3.5
Nurses*	2.3	2.8	8.8
Psychiatrists*	N/A	3.4	16.8
Antenatal Care**	93	87	N/A

Geographic Distribution

Apart from infrastructure gaps and an inadequate number of healthcare professionals, the geographic distribution of healthcare professionals in Belize is a concern. Table 16 shows a breakdown of primary health care workers among regions and districts. It is seen that across every level, Belize has the highest distribution while across almost all levels, Toledo has the lowest distribution. It is therefore important to appropriately distribute the investment of healthcare workers to geographic areas where the distribution is the lowest.

Table 16: Primary Health Care Component by District (2017)

Primary Health Care Level	Northern Region		Central Region	Western Region		Southern Region		Total
	Corozal	Orange Walk	Belize City	Cayo (Belmopan)	Cayo (San Ignacio)	Stann Creek	Toledo	
Medical Officers	4	2	15	4	2	10	10	47
Rural Health Nurses	9	7	18	4	3	5	5	51
Public Health Nurses	1	2	5	1	2	2	3	16
Psychiatric Nurse Practitioners	1	2	7	2	1	1	1	15
Public Health Educators	6	6	20	4	2	3	1	42
Health Educators	1	1	2	1	1	2	1	9
Community Health Workers	24	48	61	22	15	39	53	262

93 93 OECD and The World Bank (2020) - Health at a Glance: Latin America and the Caribbean 2020

11.3 IOA 10
TELEMEDICINE
DIGITAL HEALTHCARE PLATFORMS

BUSINESS MODEL

Invest in a platform that can provide teleconsultations and store medical files. At minimum, the software will include Electronic Medical Records (EMR) integrations, video conferencing, a virtual waiting room, live text, medical billing, and online prescriptions.

TICKET SIZE: < USD 500,000
INVESTMENT TIME FRAME: Medium Term (5-10 years to generate return)
RETURN PROFILE IRR: 5-10%
MARKET SIZE: ~ 240,907 doctor visits in 2019

MARKET ENVIRONMENT

Although the goal of the platform is to provide services to remote areas, the platform seeks to utilise internet connectivity to allow medical professionals to effectively offer services. Just below half of the population has access to the internet which covers more than the population who presently have access to a doctor in their area.

MARKET RISKS

Business - Business Model: Although Covid-19 has initiated teleconsultations and the country utilises a central database to store medical files, a platform incorporating both has not been used.
Capital - Requires Subsidy - Initial investment is required from the investor managing the platform.

ACTORS IN IOA SPACE

- Private sector: Doctors who provide services through their private practice will be able to use the platform to remotely reach patients.
- Government: Through the Ministry of Health and Wellness, act as a subsidizer of medical expenses through National Health Insurance.
- Public-Private Partnership: Not only can private doctors offer services but those within the public sector offering health services can also utilize the platform to expand the reach of their patients.

SDG ALIGNMENT

SDG 3 - Good Health and Well-Being
SDG 9- Industry, Innovation and Infrastructure

SDG INDICATORS

Indicator 3.8.1 Coverage of essential health services
Indicator 9.c.1 Proportion of population covered by a mobile network, by technology

DEVELOPMENT NEED

Belize has a network of private clinics throughout the country mostly operating using a group practice model instead of single practice. Within the entire country, only one (1) mental health facility exists, three (3) regional hospitals and three (3) community hospitals.

PRIMARY SDG CURRENT LEVELS

Indicator 3.8.1 Belize scored a 64 on the Universal health coverage (UHC) service coverage index
Indicator 9.c.1 coverage of (~90%) network connectivity.

FINANCIAL ENVIRONMENT

Currently no fiscal or other incentives that would facilitate investment in health services.

POLICY ENVIRONMENT

There is no legislative framework that governs private sector investment in public projects. However, the Cabinet recently approved a draft PPP policy and the creation of a PPP unit to mobilize private sector capital.

REGULATORY ENVIRONMENT

Relevant legislation includes but is not limited to the Medical Service and Institutions Act and the Medical Practitioners Registration Act.

PRIORITY SUBREGION

Telemedicine facilities allow for greater access to health services from individuals all over the country.

IMPACT RISKS

Consumer adoption of the telemedicine platform may be limited and prevent scaling-up.

Medical records backed up by a cloud run cyber security risks.

STAKEHOLDERS IMPACTED

People: Persons who do not have access or have limited access to a central health care would be able to secure remote telehealth services through the telemedicine platform (about 54% of the population is rural). Corporates: Private firms would be able to leverage the platform to upscale patient reach.
Public sector: Belize's public health care institution would be less burdened if persons can access other means of (remote) services.

11.4 IOA 11
NATIONAL REFERRAL HOSPITAL

BUSINESS MODEL

Construction of a national referral hospital in Belize's capital, Belmopan City, within the University of Belize's campus, including a teaching component for medical students to train. The investment would be financed through a Design Build Finance and Maintain (DBFM) or Build Lease and Transfer (BLT) PPP.

TICKET SIZE: > USD 10 million
INVESTMENT TIME FRAME: Long Term (more than 10 years to generate return)
RETURN PROFILE IRR: 15%-20%
MARKET SIZE: ~226,272 persons

MARKET ENVIRONMENT

As of 2018, 108,677 persons paid SSB contributions (under the social insurance long term branch, short term branch, employment injury branch, disability and death pension and non-contributory pension) and 117,595 NHI benefits were disbursed.

MARKET RISKS

Capital - CapEx Intensive: Although the market size is relatively large, the investment timeframe is long term. As such, to achieve returns, significant investment will need to be made before profits can be generated.

ACTORS IN IOA SPACE

- Private sector: Private investors can provide the capital and efficiency gains to facilitate infrastructure requirements.
- Government: Through the Ministry of Health and Wellness, GOB will continue to invest in the health sector and support the referral hospital.
- University of Belize - key strategic partner; provider of land and educational program (training of nurses, laboratory support and other medical staff)

SDG ALIGNMENT

SDG 3 - Good Health and Well-Being
SDG 1- No Poverty

SDG INDICATORS

Indicator 3.8.1 Coverage of essential health services
Indicator 3.c.1 Health worker density and distribution
Indicator 1.a.2 Proportion of total government spending on essential services (education, health and social protection)

DEVELOPMENT NEED

Belize has only one mental health facility, three regional hospitals and three community hospitals, three private hospitals (in Belize City) and one private hospital (in San Ignacio). The increased population density of the country now requires more facilities to ensure coverage of all its citizens.

PRIMARY SDG CURRENT LEVELS

Indicator 3.8.1 Belize scored a 64 on the Universal health coverage (UHC) service coverage index
Indicator 3.c.1 Per 10,000 population, the following is the density of occupation type:
Dentist - 1.383 (2019)
Nursing and wifery personnel - 23.414 (2018)
Pharmacists - 6.759 (2017)
Medical doctors - 10.78 (2018)
Indicator 1.a.2 ~32% of the budget is spent on essential services

FINANCIAL ENVIRONMENT

Currently no fiscal or other incentives that would facilitate investment in health services.

POLICY ENVIRONMENT

There is no current legislative framework that governs private sector investment in public projects. However, the Cabinet recently approved a draft PPP policy and the creation of a PPP unit to mobilize private sector capital

REGULATORY ENVIRONMENT

The Belmopan National Referral Hospital will be owned and operated by the Government of Belize (Ministry of Health and Wellness) and fall under the oversight of the Director of Health Services
Relevant legislation includes but is not limited to the Medical Service and Institutions Act and the Medical Practitioners Registration Act.
There is no legal framework governing the establishment of public private partnerships and concessions.

PRIORITY SUBREGION

Belmopan is centrally located within the country allowing for increased accessibility from different parts of the country. Approximately 78% of the national population is within one standard deviation of the average distance to Belmopan.

IMPACT RISKS

Execution risk: In addition to the SSB and NHI coverage, the hospital is expected to generate returns from the education component that requires a strong curriculum.

STAKEHOLDERS IMPACTED

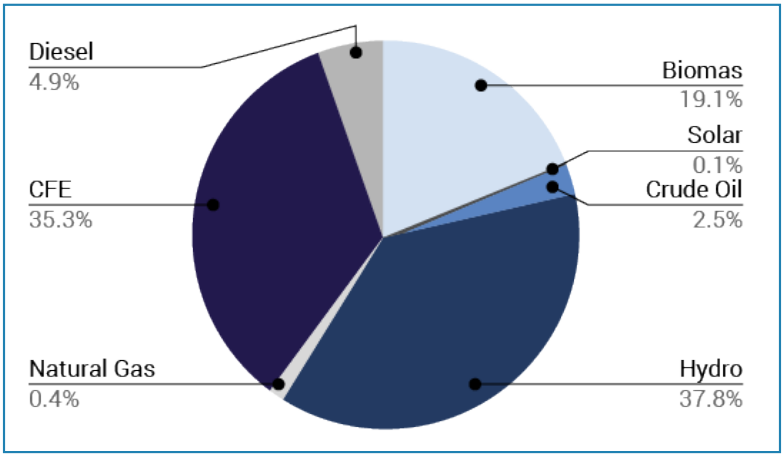
People: Those without access to healthcare would be able to use the central Belmopan hospital that would be of easier access.
Corporates: Private insurance companies would be able to cover a larger market size as persons who did not have access to healthcare before would not be able to utilise the services more conveniently.

12.0 SECTOR 7: RENEWABLE RESOURCES AND ALTERNATIVE ENERGY

12.1 SECTOR OVERVIEW

Almost half of the energy in Belize comes from hydropower and from Mexico's Federal Energy Commission (Comisión Federal de Energía, or CFE) (see Figure 17). Belize Electricity Limited (BEL) is the primary distributor of electricity in Belize. In 2020, BEL sold an aggregate 539.3 gigawatt hours (GWh) of which 94.4% accounted for renewable sources from locally sourced energy supply[94].

Figure 17: Energy Generation Matrix[95]



BEL was granted a fifteen-year license to generate, transmit, distribute and supply electricity in Belize with an automatic ten-year recurring license that began in 2015. The company purchases most (70%) of its electricity from Mexico and the rest from independent power producers (IPPs) who utilise hydroelectricity, biomass, petroleum and solar energy sources that are secured and stabilized by Mexico.[96] The IPPs are allowed to generate up to 75 kilowatts of power after which licensing requirements apply. Table 17 lists IPPs, the type of energy utilised and the installed capacity. It shows most of the facilities utilise hydro energy.

Table 17: Renewable Energy Installed Capacity [97]

*Owned and operated by Belize Electric Company Limited (BECOL) [98]

Facility	Type	Installed Capacity
Mollejon*	Hydro	25.2 MW
Vaca*	Hydro	19.0 MW
Chalillo*	Hydro	7.3 MW
Hydro Maya	Hydro	3.0 MW
Belize Cogeneration Energy Limited (Belcogen)	Bagasse (Sugar Cane)	31.5 MW
Santander	Bagasse (Sugar Cane)	16 MW
UB Solar Farm	Solar	0.48 MW

94 Source: Belize Electricity Limited Annual Report (2020)

95 Source: International Renewable Energy Agency (2018)

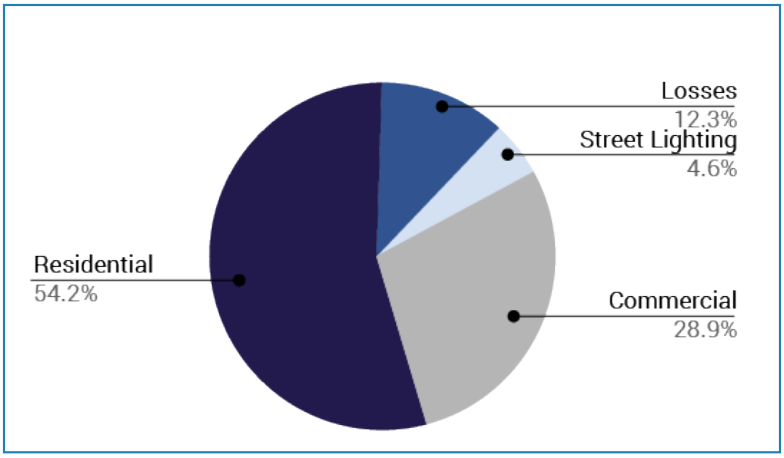
96 Source: Belize Electricity Limited Annual Report (2018)

97 Source: International Renewable Energy Agency (2018)

98 BECOL is owned by Fortis which is the largest investor-owned distribution utility in Canada, operating in 17 jurisdictions.

Belize has moderately low CO2 intensity and its footprint is among the lowest in the world[99]. In 2011, Belize released 0.54 million metric tons of CO2 and per capita CO2 emission of 1.67 metric tons per year[100]. Approximately 54% of Belize's energy supply comes from renewable energy sources and 9% from non-renewable sources. The residential and commercial sectors consume most of the country's energy. Figure 18 shows the sector breakdown and the consumption of each.

Figure 18: Energy Consumption by Sector[101]



Energy is also largely consumed by the transport sector. In 2010, the transport sector consumed 46.80% of the total energy in the country, of which 99% came from fossil fuels[102]. Of the 68% of fossil fuel imported to the country, 90% is used by the transport sector.

The energy sector is one of the largest sources of government revenue. As of 2019, the electricity and water supply sector contributed to 4.2% of GDP. A slight decline from 2018 is directly attributable to drought effects. Reduced rainfall caused hydroelectricity generation to plunge. As a result, the sector experienced a surge in electricity imports to make up for drought induced reduction in hydroelectricity generation. However, the increased rainfall after the end of the prolonged drought led to a 15.0% rebound in electricity and water output in 2020[103].

Solar Energy

Solar energy is converted to electric energy using photovoltaics (PV) panels. Belize has recently seen an increased purchase of both grid-connected and off-grid Solar PV systems. Two major Solar PV companies have installed an average of 140 kW annually over three years[104]. One of the companies installed 40 panels averaging 5 kW for each system. The University of Belize within the capital of Belize has also been producing approximately 590 MWh of electricity annually since 2012 and the system is tied to the grid. The aim of the country is to add up to 60 MW of dispatch-able capacity and 15 MW of variable capacity to the National Electricity System over the next 15 years of which 5 MW of variable capacity will be reserved or allocated for solar energy generation.

Hydro Energy

Nearly half of Belize's electricity is generated from hydropower. The 2018 installed capacity of hydropower generation in Belize is 51.5 MW[105]. The distribution of hydropower within the country is between four (4) plant sites: Mollejon Hydro Plan, Chalillo Hydroelectric Dam Plan, Vaca Hydroelectric Facilities and HydroMaya Dam.

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99 Source: CO2 Scorecard: https://co2scorecard.org/countrydata/Index/4136

100 Ibid.

101 Source: Energy Transition Initiative Island (2015)

102 Source: Comprehensive National Transportation Master Plan

103 Source: Annual Report and Statement of Accounts 2020 (Central Bank of Belize)

104 Source: Belize Technology Needs Assessment - Mitigation: Identification and Prioritization of Mitigation Technologies for Belize

105 Source: Belize Consolidated Project Plan

Wind Energy

Belize has approximately 700 km2 of land with moderate to good wind. Its land areas are divided into seven (7) classes based on wind speed and therefore generational potential. Lands with 1 and 2 are considered to have poor or marginal wind resources whereas locations with class 3 and above are considered areas with moderate to excel wind resources.

Forestry Management

PAs are an important base for the development and strengthening of economic activities and contribute toward overall energy services[106]. They also provide a variety of ecosystem services such as water security, food security, storm and flood protection, recreation, and other social and cultural benefits. The Convention on Biological Diversity (CBD) recognizes Protected Areas (PAs) as an integral part of global efforts to conserve and use biological resources sustainably. PAs in Belize provide direct economic benefits through tourism and the extraction of natural resources such as timber and fisheries. However, the highest priority for PAs is the biodiversity protection and promotion of sustainable resource use. The forest reserves are established on national lands by the minister responsible for forests on the advice of the Forest Department to protect forests for management of timber extraction and/or the conservation of soils, watersheds and wildlife resources[107]. As of 2015, 103 protected areas within the National Protected Areas System (NPAS) of which 52 protected areas lie under the administration of the Forest Department with a further 9 Marine Reserves and 12 spawning aggregation sites (many of which overlap existing Marine Reserves), being administered by the Fisheries Department[108].

12.2 SECTOR DEVELOPMENT NEEDS & POLICY MOMENTUM

Energy policy-makers aim to balance the incurrence of these costs, losses and environmental damage with the achievement of national goals for economic growth and long-term prosperity, security, poverty reduction and social equity. In order to do this, the national energy sector as a whole must be efficient, sustainable and resilient thus GOB developed the National Energy Policy which outlines four goals:

1. Foster sustainable production, distribution and use of energy as a critical resource needed to achieve the overarching national goals of economic growth and long-term prosperity, security, poverty reduction and social equity.
2. Minimize the cost of energy in the local economy
3. Mitigate the impacts of uncontrollable events such as external market price and supply shocks and natural disasters on the cost of energy and on the reliability of energy supply.
4. Create a national energy-efficiency-focused culture that is fully aware of how its actions (or inactions) affect energy use and that is proactive about the conservation and efficient use of energy.

The National Protected Areas System Plan (NPASP) considers Belize's Horizon 2030 where "the natural environment is valued and protected as the basis for all economic activity." It was developed to provide for the managerial maintenance of a system of protected areas for the economic, social, and environmental benefit of present and future generations of Belizeans. The primary purposes of the NPAS is to establish an effective protected areas system for Belize. To achieve this, four interrelated overarching goals are outlined:

1. Formal recognition and integration of the fundamental role of protected areas and natural resources as a pillar in national economic development
2. Inter-sectoral buy-in, participation and support for PAs in both public and private sectors
3. Establishment of an enabling environment for private sector involvement in protected areas management
4. Integration of protected areas as a tool in the holistic management approach of landscapes and seascapes

106 Source: The Belize National Protected Areas System Plan (2005)

107 Source: National Protected Areas System (2015)

108 Ibid.

The declining renewable energy prices and high resource potential for technology represents a large opportunity for Belize to develop capacity in renewable energy deployment. Part of the GOB goal is to invest in modern infrastructure that lays the foundations for human, social and economic development growth through improved facilities, including utilities such as energy[109]. However, it is important that Belize addresses key development needs for the sector to advance.

Dependence on Mexico

Belize's electricity is dominated by imported electricity from Mexico. Notably, the Mexican grid is more carbon-intensive than the Belizean grid[110]. Roughly 80% of electricity generated relies on fossil fuels, especially natural gas[111]. The price of Mexico is therefore dependent on the international price of crude oil. CFE energy is bought on the spot market which, for Belize, means the system is highly vulnerable to oil price volatility.

Energy Efficiency Barriers

Energy efficiency barriers identified are not unique to Belize itself but are applicable to the energy sector itself. Such barriers include[112]:

- Agency barriers as the person who decides what equipment a property should use is not who should pay for operating expenses
- Information barrier for people who may not be familiar with energy efficient equipment
- Financial barrier as efficiency equipment may be difficult to find and sold at a high cost
- Regulatory barrier such as pesticides listing
- Skills barriers from service providers who may not have the skills to provide professional services in order to secure efficient investment
- Market barrier to access equipment or resources since Belize does not have an interconnection to the Central American Electrical Interconnection System (SEIPAC) which could be used to leverage low-cost imports through stimulated competition between Mexico and Central America.
- Policy barriers

109 Source: Plan Belize: Rural Living, Housing, Transport, Infrastructure (2020)

110 Source: Belize Consolidated Project Plan (2018)

111 Ibid.

112 Source: The Energy Sector in Belize 2014 (IDB)

12.3 IOA 12
SOLAR FARMS

BUSINESS MODEL

Investing in adding an additional 40MW of utility scale solar which will allow BEL to further transition towards renewable energy distribution. Project developers will be paid for energy sold to the grid at a predetermined price set out in a Power Purchase Agreement.

TICKET SIZE: USD >10 MN
INVESTMENT TIME FRAME: Long term (more than 10 years)
RETURN PROFILE: 5% - 10% (IRR)
MARKET SIZE: 103,000 customer accounts in Belize

MARKET ENVIRONMENT

As of the end of 2020, Belize Electricity Limited currently serves 103,000 customers who could potentially utilise solar energy.

MARKET RISKS

Capital - CapEx Intensive: Solar energy production typically requires large tracts of land, requires extensive system design and engineering and procurement costs. Market - Highly Regulated: Only licensed and authorized Independent Power Producers can generate power in Belize. Licensing must be obtained through the Public Utilities Commission that also has significant control over rate setting.

ACTORS IN IOA SPACE

- Government: Ministry of Public Utilities (Ministry of Energy) - responsible for setting national energy policy.
- Public-Private Partnership: Solar project developer would secure a long-term power purchase with BEL.

SDG ALIGNMENT

SDG 7 - Affordable and Clean Energy
SDG 12- Responsible Consumption & Production
SDG 13- Climate Action

SDG INDICATORS

7.2.1 Renewable energy share in the total final energy consumption
7.b.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)
12.a.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)
13.2.2 Total greenhouse gas emissions per year

DEVELOPMENT NEED

On average Belize's domestic renewable energy supplies accounted for 49% of total generation, while energy imports from Mexico accounted for 43%. Purchasing power from CFE exposes Belizean consumers to price shocks and disruptions that arise in Mexico.

PRIMARY SDG CURRENT LEVELS

7.2.1 75% share of renewable energy in the total final energy consumption
7.b.1 90kW per capita of renewable energy produced
12.a.1 90kW per capita of renewable energy produced
13.2.2 Total greenhouse gas emissions (kt of CO_2 equivalent) in Belize was 1,194.71 in 2017

FINANCIAL ENVIRONMENT

Long-term Power Purchase Agreements (PPAs) reduce risk for investors and ensure steady returns over the life of the investment.

POLICY ENVIRONMENT

Greater recognition of the need to increase renewable energy production to minimize dependence on foreign energy which exposes Belizean consumers to external-market shocks.

In addition Belize's Nationally Determined Contributions (2021) call for:
75% of generation from renewables by 2030 Installation of 40MW of utility-scale solar by 2025

REGULATORY ENVIRONMENT

The PUC is responsible for regulating all public utilities in Belize (electricity, water, and telecommunications). Regulatory authority for the electricity sector is derived from the Public Utilities Commission Act, Belize Electricity Act
Belize Electricity Limited is licensed to transmit and distribute electricity throughout Belize
IPPs are licensed to generate electricity by the PUC

PRIORITY SUBREGION

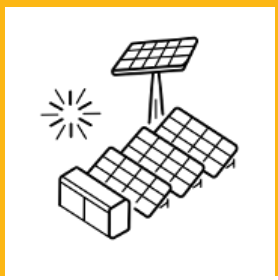
Southern and central Belize - Only 55% of energy consumed in Belize is generated locally from renewable resources.

IMPACT RISKS

Potential for external risks such as high capital costs and procedural difficulties for solar installation may slow down project development and energy production.

STAKEHOLDERS IMPACTED

People: Benefit from more affordable rates and cleaner energy, approximately 103,000 customers
Public sector: Receives private sector mobilization towards national sustainability priorities.
Planet: Benefits from less reliance on 'dirty' energy from non-renewable sources including coal and petroleum.



12.4 IOA 13
MICROGRIDS

BUSINESS MODEL

Micro-grids have the potential of providing affordable and clean energy for rural communities while also reducing the dependency on foreign energy supply. Micro-grids could be powered by small utility-scale solar systems with backup and storage capabilities to ensure reliable power supply. This project seeks to provide micro-grid power to 15 rural communities in Belize.

TICKET SIZE: USD 1 million - USD 10 million
INVESTMENT TIME FRAME: Long Term (more than 10 years)
RETURN PROFILE: 5% - 10% (IRR)
MARKET SIZE: 1,156 residential accounts

MARKET ENVIRONMENT

The Energy Unit under the Ministry of Public Utilities, Energy and Logistics and Logistics Tours Ministerial Departments conducted an assessment to identify communities who do not have access to electricity. Among the communities assessed, the number of households (1,156) were identified.

MARKET RISKS

Capital - Limited Investor: Micro grid projects that serve communities who do not have access do not typically gain investment attraction.

Capital - CapEx Intensive: To implement affordable electricity, the investor is projected to obtain returns in the long term.

ACTORS IN IOA SPACE

- Government: Ministry of Public Utilities (Ministry of Energy)
- The Public Utilities Commission (PUC)
- Belize Electricity Limited (BEL)
- The Government of Belize (GOB)
- European Union (EU)

SDG ALIGNMENT

SDG 7: Affordable and clean energy

SDG INDICATORS

7.1.1 Proportion of population with access to electricity
7.1.2 Proportion of population with primary reliance on clean fuels and technology
7.2.1 Renewable energy share in the total final energy consumption
7.b.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)
12.a.1 Installed renewable energy-generating capacity in developing countries (in watts per capita)
13.2.2 Total greenhouse gas emissions per year

DEVELOPMENT NEED

On average Belize's domestic renewable energy supplies accounted for 49% of total generation, while energy imports from Mexico accounted for 43%. Purchasing power from CFE exposes Belizean consumers to price shocks and disruptions that arise in Mexico.

PRIMARY SDG CURRENT LEVELS

7.1.1 The proportion of the population with access to electricity was 98.3% in 2017.
7.1.2 In 2018, 83.0 % of the population relied primarily on clean fuels and technology.
7.2.1 The share of renewable energy in the total final energy consumption was 38.7% in 2017.
7.b.1 90kW per capita of renewable energy produced
12.a.1 90kW per capita of renewable energy produced
13.2.2 Total greenhouse gas emissions (kt of CO2 equivalent) in Belize was 1,194.71 in 2017

FINANCIAL ENVIRONMENT

Potential fiscal incentives such as duty exemptions from the government on equipment to facilitate microgrid projects

POLICY ENVIRONMENT

Belize's 2011 National Energy Policy Framework calls for increased public sector support for renewable energy projects.

REGULATORY ENVIRONMENT

The PUC is responsible for regulating all public utilities in Belize (electricity, water and telecommunications). Regulatory authority for the electricity sector is derived from the Public Utilities Commission Act, Belize Electricity Act
Belize Electricity Limited is licensed to transmit and distribute electricity throughout Belize
IPPs are licensed to generate electricity by the PUC

PRIORITY SUBREGION

Rural communities have been traditionally underserved when it comes to investments in infrastructure. Specifically, communities have been identified in Toledo and Orange Walk.

IMPACT RISKS

Stakeholder participation risk - Indigenous communities can be reluctant to allow for private sector investments within their communities.

STAKEHOLDERS IMPACTED

People: Rural households would have access to affordable and renewable energy.
Planet: Microgrids offer zero-emission electricity sources that could positively impact the environment.

12.5 IOA 14
CONCESSION ARRANGEMENTS FOR PROTECTED AREAS

BUSINESS MODEL

There exists a national protected areas concessions framework aimed at facilitating investment within Belize's Protected Areas (PAs). This framework allows for investors to work closely with Belize's national conservation trust fund - The Protected Areas Conservation Trust - to secure concessions within Belize's protected areas system that can provide at-market or above-market returns for investors but also mobilize resources for greater conservation and protection of the Chiquibul-Mountain Pine Ridge-Caracol Complex.

TICKET SIZE: USD 1 million - USD 10 million
INVESTMENT TIME FRAME: Long Term (more than 10 years to generate return)
RETURN PROFILE: > 25% (IRR)
MARKET SIZE: 500,000 overnight visitors in 2019

MARKET ENVIRONMENT

Overnight arrivals in 2019 amounted to more than 500,000 visitors, the highest on record in Belize. The global health crisis has impacted tourism significantly, but early indications are that tourism will reach 2019 levels by 2022 and in light health concerns, eco-centered hospitality services are likely to be popular with visitors.

MARKET RISKS

Business - Business Model Unproven - No concessions granted to date in Belize.

Market - Highly Regulated - Concessions must be vetted, approved, and authorized by lead agencies charged with protected area oversight.

ACTORS IN IOA SPACE

- Private sector: Project developers/ private investors Government through the Ministry of Sustainable Development, Climate Change and Disaster Risk Management - Lead ministry for terrestrial protected areas. Houses Forest Department which is sole manager/ co-manager within the Chiquibul-Mountain Pine Ridge area.
- Non-Profit such as Friends for Conservation and Development
- Protected Areas Conservation Trust (PACT) is the implementing agency for National PA Concession Framework.

SDG ALIGNMENT

SDG 8 - Decent Work and Economic Growth
SDG 12- Responsible Consumption & Production
SDG 15 - Life on Land

SDG INDICATORS

8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate
8.2.1 Annual growth rate of real GDP per employed person
8.4.1 Material footprint, material footprint per capita, and material footprint per GDP
15.a.1 (a) Official development assistance on conservation and sustainable use of biodiversity; and (b) revenue generated and finance mobilized from biodiversity-relevant economic instruments

DEVELOPMENT NEED

Terrestrial PAs in Belize provide direct economic benefits through tourism and the provision of natural resources such as lumber. However, if left unchecked these activities can have profound negative impacts on Belize's biodiversity. Belize's Biodiversity Finance Plan identified the need for USD $24.9 MN in financing for priority NBSAP target which focuses mainly on protection and reducing pressures while also ensuring compliance with Global Aichi Targets.

PRIMARY SDG CURRENT LEVELS

Indicator 8.9.1 37.3% of GDP in 2019
Indicator 8.2.1 -1.6% annual growth rate of real GDP per capita (2019)
Indicator 8.4.1 Belize Domestic Material Consumption (DMC) tonnes per capita was 11.98 in 2015 (UNEP)
Indicator 15.a.1 The BER concluded an aggregate of over USD $150M attributed as biodiversity expenditures for the period of 2012 – 2017 (50 MN per year)

FINANCIAL ENVIRONMENT

Concession framework exists in draft-form. Long-term concession agreement would allow for revenue sharing that can benefit conservation and protection within the complex.

POLICY ENVIRONMENT

As of 2015, 103 protected areas within the National Protected Areas System (NPAS) - 52 under the Forest Department with a further 9 Marine Reserves and 12 spawning aggregation sites (many of which overlap existing Marine Reserves) being administered by the Fisheries Department.
The forest reserves are established on national lands by the minister responsible for forests on the advice of the Forest Department to protect forests for management of timber extraction and/or the conservation of soils, watersheds and wildlife resources.

REGULATORY ENVIRONMENT

PACT is authorized by the Government of Belize (GOB) to approve concessions within PAs.
Activities must be evaluated to have low or non-harmful impacts on PAs by the Ministry of Sustainable Development, Climate Change and Disaster Risk Management (in the case of terrestrial PAs) and the Ministry of Blue Economy and Civil Aviation (in the case of marine PAs).

PRIORITY SUBREGION

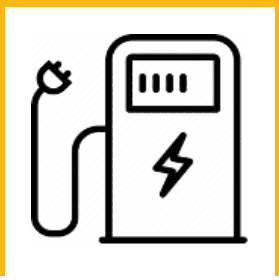
Southwest Belize, Chiquibul-Mountain Pine Ridge-Caracol Complex, which is under heightened pressure and threatened by illegal transboundary activity including illegal logging and extraction of forest resources. Monitoring and enforcement is limited due to limited financial and human resources and remoteness.

IMPACT RISKS

Stakeholder participation risk - Indigenous communities can be reluctant to allow for private sector investments within their communities.

STAKEHOLDERS IMPACTED

People: Users include visitors to Belizean PAs who will benefit from expanded services and hospitality. Surrounding communities will be beneficiaries of added investment through employment opportunities.
Public sector: Receives private sector financial assistance that positively contributes to national conservation priorities.



12.6 IOA 15
EV CHARGING STATIONS

BUSINESS MODEL

Investing in EV charging infrastructure will allow Belize to reduce its carbon footprint and tap into a growing global trend of automotive electrification. With a median driving range of 250 miles, electric vehicles still require on-route charging infrastructure to reliably commute.

TICKET SIZE: USD 1 million - USD 10 million
INVESTMENT TIME FRAME: Medium Term (5-10 years)
RETURN PROFILE: 5% - 10%
MARKET SIZE: 174 vehicles per 1,000 people in Belize roughly 70,000 ICE vehicles

MARKET ENVIRONMENT

The number of ICE vehicles provides insight into the number of potential transitions to EVs. The number of vehicles per person helps establish potential demand.

MARKET RISKS

Capital - Limited Investor. Belize has only recently begun importing electric vehicles. Investors would be hesitant to invest in the stations and risk an increase in the number of EVs in the country.

ACTORS IN IOA SPACE

- Government: Ministry of Public Utilities and Logistics is responsible for national public utilities policy.
- The Ministry of Sustainable Development, Climate Change & Disaster Risk Management is responsible for national sustainable development and climate change policy.
- Private sector. Potential IOA investors.

SDG ALIGNMENT

SDG 7 - Affordable and Clean Energy
SDG 9 - Industry, Innovation and Infrastructure
SDG 11 - Sustainable Cities and Communities

SDG INDICATORS

7.1.2 Proportion of population with primary reliance on clean fuels and technology
9.4.1 CO2 emission per unit of value added
11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)
11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities
13.2.2 Total greenhouse gas emissions per year

DEVELOPMENT NEED

In 2017, there were more than 42 thousand public transport vehicles on Belizean roads per week. Forecasts show that number will almost double to 76 thousand public transport vehicles on the road per week by 2035. With a typical diesel bus emitting more than 229 thousand lbs. of greenhouse gases annually, switching to a BEB fleet would help reduce carbon emissions considerably

PRIMARY SDG CURRENT LEVELS

7.1.2 In 2018, 83.0 % of the population relied primarily on clean fuels and technology.
9.4.1 0.2 kg per PPP$ of GDP in 2018
11.6.2 In 2016, the annual population-weighted average mean concentration of fine suspended particles of less than 2.5 microns in diameter (PM2.5) was 20.9 micrograms per cubic metre . This is above the maximum level for safety set by WHO of 10 micrograms per cubic metre.
11.2.1 Indicator Satisfaction with public transport
49 % (2014)
13.2.2 Total greenhouse gas emissions (kt of CO2 equivalent) in Belize was 1,194.71in 2017

FINANCIAL ENVIRONMENT

Uncertainty remains as to fiscal incentives for the importation of electric vehicles and a national strategy for the development and establishment of emissions-based taxes/feebates for imported vehicles is still in its very early stages.

POLICY ENVIRONMENT

Developing Belize's EV capacity is a national priority and outlined in Belize's Updated Nationally Determined Contribution. However, a national EV strategy does not exist as yet.

The Government of Belize's NDC targets include avoiding 117 KtCO2e/year from the transport sector by 2030 through a 15% reduction in conventional transportation fuel use by 2030 and achieving 15% efficiency per passenger- and tonne-kilometre through appropriate policies and investments.

Currently ~0.32 tonnes of CO2 transport emissions per capita in Belize.

REGULATORY ENVIRONMENT

The Public Utilities Commission (PUC) is the sole regulatory agency for the electricity, water, and telecommunications sectors. EV infrastructure would have to meet national and international safety and accessibility standards.

PRIORITY SUBREGION

Investment needed within all six (6) districts and in particular in urban areas. Urban areas are more likely to have high levels of traffic congestion that contributes to air pollution.

IMPACT RISKS

External factors disrupt delivery of expected impact.

STAKEHOLDERS IMPACTED

People: Users include customers who would rely on the charging infrastructure to meet their charging needs. Ideally, residential customers would be able to access charging services during routine commutes. Commercial customers would be able to access charging services for their fleets.

13.0 SECTOR 8: SERVICES

13.1 SECTOR OVERVIEW

The services sector is the largest sector in Belize, accounting for nearly two-thirds of the country GDP or 62.7% in 2019. Dependence on the tertiary sector has significantly increased over the years as its contribution to national output is immense (represents an increase from 57.4% in 1999 to 62.7% in 2019. Additionally, the services sector employs more than 67.1% of Belize's labour force in 2019. The sector is largely driven by the tourism industry, contributing to 307.3% of GDP in 2019. With tourism accounting for more than 30% of tertiary sector income, it makes Belize vulnerable to industry shocks such as the ongoing global health crisis. Diversification of its services sector is key to increasing the sector's resiliency.

13.2 SECTOR DEVELOPMENT NEEDS & POLICY MOMENTUM

The Business Process Outsourcing (BPO) industry has been recognized as a priority industry for Belize's socio-economic growth by the Government of Belize as well as the private sector. The offshore outsourcing sector of Belize has experienced tremendous growth of over 80% in the past few years, starting with only one (1) center opening its doors in 2005 to over 20 centers presently employing over 2,400 agents. Various operations of diverse sizes are underway along with several investments in the exploratory or planning stages. Most centers in Belize currently focus on inbound and outbound call center operations, since it is the only Latin American and Caribbean location offering the dual advantage of being a cost effective location, with 'accent neutral' English language skills; English being the official language[113]. Belize also hosts a 51.26% Spanish speaking population, making it a truly bilingual destination[114].

As Belize's outsourcing services sector continues to grow, service providers have started to diversify into new service offerings such as information technology outsourcing (ITO) and knowledge process outsourcing (KPO). Current outsourcing services include IT services such as technical support, software development, programming, web design, data processing and e-marketing. While Belize City is the main hub for BPO operations in Belize, there is a need to shift the center of focus to other areas, such as: the Capital City of Belmopan, the Western Cayo district, the Northern Towns of Orange Walk and Corozal and in the Southern Towns of Dangriga and Punta Gorda. These untapped locations would enable any potential outsourcing investor to experience the first mover advantage in a growing sector nationwide. In an age of rapid digital transformation, outsourcing can play an increased role in employment and is a good way for businesses to significantly enhance their cost base and capabilities. Business services currently account for only 8.4% of GDP with the sector in need of additional investment to support infrastructure development, geographic scope within Belize, and increase the demand for employment. There is also a need to increase workplace health by allowing for more remote working which can have positive impacts on labor force health. Investing in the development of an outsourcing hub can serve to tap into other areas other than Belize City and provide further outsourcing support activities in BPO, ITO, and KPO. Within the BPO segment, Belize should focus on offering blended customer support with helpdesk and technical support.

The Duke Global Value Chain Centers have documented several challenges affecting the BPO industry, among them are[115]:

- Limited workforce, shortage of critical abilities for the industry, and inadequate labor regulations
- Absence of reliable infrastructure
- Informal companies and challenges to identify these
- Weak data security and intellectual property protection
- Absence of policy direction and coordination/ bureaucracy failures
- Weak visibility of Belize as a BPO destination

113 BELTRAIDE (2020)

114 SIB Census (2010)

115 BIDeconomics Belize: Developing a Sustainable, Resilient and Inclusive Belize (2021)

IOA 16
BUSINESS PROCESS OUTSOURCING

BUSINESS MODEL

Investment to develop an outsourcing hub to serve as a central location with the necessary infrastructure to support significant outsourcing activities in BPO, ITO, and KPO.

TICKET SIZE: USD 500,000- USD 1 MN
INVESTMENT TIME FRAME: Long Term (more than 10 years)
RETURN PROFILE: GPM: >25%
MARKET SIZE: < USD 500,000 MN 3,000+ employed in BPO sector

MARKET ENVIRONMENT

Call center BPO market valued at US $200 million

MARKET RISKS

Capex intensive-Facilities need to be constructed to house call center operations and necessary equipment

ACTORS IN IOA SPACE

- Private sector (outsourcing companies)
- BELTRAIDE (implementing agency of DPA program)
- Ministry of Finance (responsible for final DPA authorization)

SDG ALIGNMENT

SDG 8 - Decent Work and Economic Growth
SDG 10- Reducing Inequalities

SDG INDICATORS

Indicator 8.1.1 - Annual growth rate of real GDP per capita
Indicator 8.2.1 - Annual growth rate of real GDP per employed person
Indicator 10.1.1 - Growth rates of household expenditure or income per capita among the bottom 40% of the population and the total population
Indicator 8.5.2 Unemployment rate, by sex, age and persons with disabilities

DEVELOPMENT NEED

Business services currently account for only 8.4% of GDP with the sector in need of additional investment to support infrastructure development, geographic scope within Belize, and increase the demand for employment. There is also a need to increase workplace health by allowing for more remote working which can have positive impacts on labor force health.

PRIMARY SDG CURRENT LEVELS

Indicator 8.1.1: -1.6% annual growth rate of real GDP per capita (2019)
Indicator 8.2.1: -2.7% annual growth rate of real GDP per employed person (2019)
Indicator 10.1.1: -15% growth rate of gross national income per capita in Belize (2020)
Indicator 8.5.2 Unemployment rate: 7.82% (2020)
By sex: (Female: 17% Male: 11.6%)

FINANCIAL ENVIRONMENT

Fiscal incentives include the Designated Process Area program that benefits companies that engage in IT Enabled Services such as BPO, ITO, and KPO. Benefits applicable to the Offshore Outsourcing Industry under the program include the following:
Exemptions from Custom and Excise duties and taxes on imported goods. This includes General Sales Tax, Environmental Tax and Revenue Replacement Duties;
Exemption on Property and land tax on designated area;
Exemption from Trade License;
Eligible to maintain a foreign currency account in a domestic or international bank that is located in Belize.

POLICY ENVIRONMENT

Offshore outsourcing sector is a priority sector for the Government of Belize.
Fiscal Incentives Program administered by BELTRAIDE can provide investors with tax and duty exemptions which can reduce costs.
Monetary policy ensures a stable exchange rate of BZD2 to USD1.

REGULATORY ENVIRONMENT

All BPO centers are governed by corporate and commercial law.

PRIORITY SUBREGION

Cities and towns across Belize but with the potential to generate employment opportunities for people outside of urban centers through remote employment.
Semi-urban- Remote working facilities can facilitate employment for people across the country.

IMPACT RISKS

Can marginalize those with low levels of education and those 35+ that may not be familiar with remote working and virtual workplaces.

STAKEHOLDERS IMPACTED

People: individuals seeking employment outside of urban areas, this is beneficial as it can potentially improve employability and productivity of the workforce.

14.0 CONCLUSION

Belize's SDG Investor Map 2021 presents 16 investment opportunities which contribute both to development and priority needs in Belize along with fulfilling the Sustainable Development Goals. The map presented in this document is a condensed version of the full detailed map that can be found in the UN SDG Investment Platform which highlights all the key data points required for investment decision. The digitization of the investor map in a platform-base is expected to provide investors with more information and insights into the project initiatives to better understand both the financial potential and project impact. Belize, amongst other countries has realized the importance of having investments that are sustainable and provide resilience to external shocks, especially in the light of COVID.

The SDG Investor Map makes it easier for investors to identify investment opportunities in different countries that may have a particular interest in. The map provides investors with market intelligence (data, analysis, and evidence) about the investment opportunities. The identified investment opportunity areas (IOAs) and business models respond to both SDG needs and policy priorities to guide domestic and foreign investor decision-making.

The Investment Opportunity Areas (IOAs) provide significant social returns to the economy, with some providing a financial/ economic return for investors. Many of the investments identified require some level of mixed public and private sector participation and investments for the business models to work. Financial models include: concessional financing, blended financing and commercial financing. Market risks have also been identified for each of the individual projects.

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