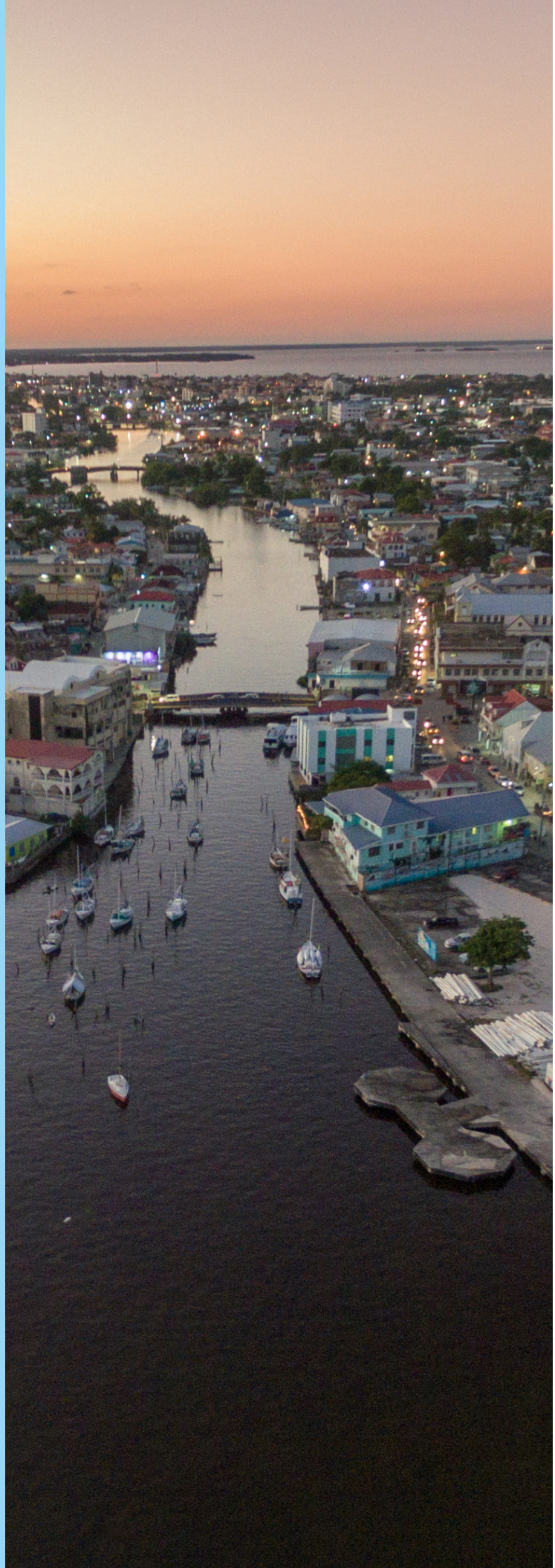
Belize



Belize 2022 Constraints Analysis Report

MILLENNIUM CHALLENGE CORPORATION
UNITED STATES OF AMERICA

An Analysis prepared by the Government of Belize and the Millennium Challenge Corporation of the United States of America for the Development of a Millennium Challenge Corporation Compact Program.

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Authors & Acknowledgements

MCC undertook this Constraints to Economic Growth Analysis (CA) under its Compact Program engagement with Belize.

The Constraints Analysis process, which went from December 2021 to March 2022, involved engagement and interviews with the Chamber of Commerce, high growth industries, and key ministries throughout Belize. Marcelino Avila, advisor to the Prime Minister of Belize, was the Government of Belize representative during the CA process.

Andrew Carter and Katie Farrin were the economists for the CA team that included Andrew Tarter, Albert Bossar, and Laura Cornwall. Development of MCC's Compact Program with Belize was under the overall leadership of John Wingle.

Abstract

Belize is a small nation in Central America. The country's economic development has been average for a the region, however a heavy reliance on tourism has led to a dramatic drop in growth due to the Covid-19 pandemic. Core sectors driving economic growth have been agriculture as a historical but shrinking sector that is still vital to employment, a rapidly growing business process outsourcing sector, and tourism. As Belize's GDP per capita continues to rise the core challenge will be transitioning from lower return agriculture to higher return BPOs or high value agriculture while sustaining tourism growth and relevance as climate change impacts the sector. Core constraints to growth are:

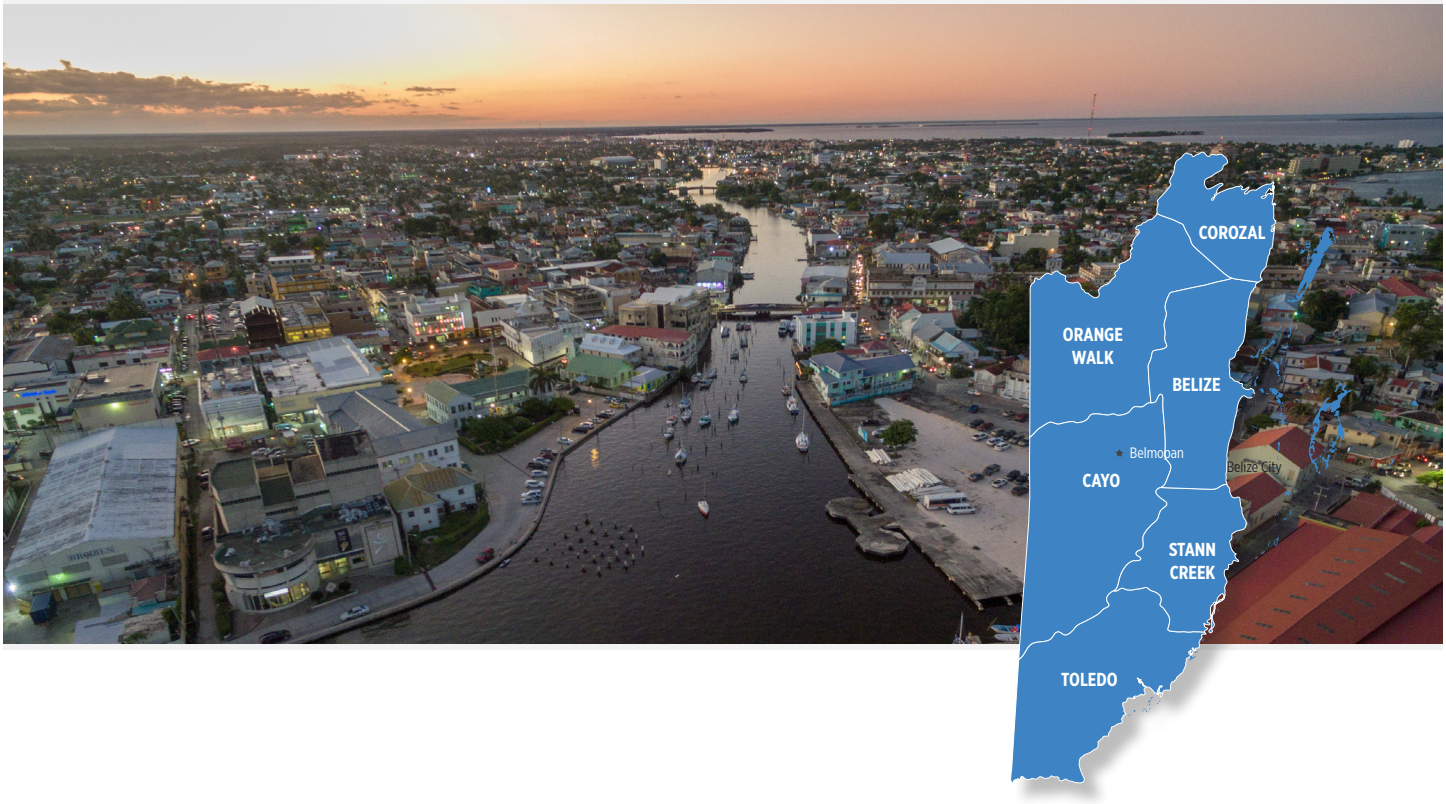
Education: Low quality of education has led to a shortage of trained professionals in all industries.

Government regulation and tax policy: Tax policy, licensing, and permitting increases business costs and limits market entry.

Electricity: High costs of electricity drive up input costs for all industries.

Natural Capital Management: Degradation of coastal and marine resources constrains growth in tourism.

Access to Finance: Limited access to finance is constraining SMEs' ability to optimally invest.



Country Context

Situated along the Caribbean Sea on the east coast of Central America, Belize is a small country. Roughly the size of New Hampshire, its estimated population in 2019 was 405,000—one tenth of the population of Panama, the second least populous country in Central America.

The country's economy, valued in 2019 at about US$1.8 billion, or about US$4,701 per capita,[1] is driven by services—primarily tourism and business process outsourcing (BPO)—and, to a lesser extent, agriculture. Recently, stagnant per capita gross domestic product (GDP) growth—including negative growth in six of the ten years from 2011-2020—has resulted in Belize's fall from upper-middle income country status. GDP per capita declined to US$3,967 in 2020, reflecting a nearly 16 percent drop in annual growth. Poverty and inequality remain stubbornly high, characterized by significant regional disparities and lower incomes in rural, inland areas and in the northernmost district of Corozal and the southernmost district of Toledo.

Political History

Belize's economic landscape is characterized by the challenges of a small, open economy, including vulnerability to terms-of-trade shocks and diseconomies of scale in public service provision. This is more similar to island nations than to its nearest neighbors in Central America. Like its Caribbean comparators, Belize's economic growth has lagged that of other small economies.

Economic History & Productive Sectors

The continuing COVID-19 pandemic has devastated Belize, as a collapse of tourist inflows—the lifeblood of the Belizean economy—contributed to a stark contraction of GDP of 13.4% percent and high unemployment

1 Unless otherwise noted, US$ figures and derivative statistics (e.g., percent growth) in this analysis are based on constant 2015 dollars, using data from World Development Indicators (WDI).

What is a Constraints Analysis?

MCC's evidence-based approach begins with a constraints-to-economic growth analysis (CA). In a CA, MCC works with a partner country to examine and prioritize the issues that constrain its economy. The CA approach builds on the "growth diagnostic" framework put forward by economists Ricardo Hausmann, Dani Rodrik, and Andrès Velasco (HRV). As HRV point out, all developing countries face significant economic and development challenges, but these challenges do not all equally restrict growth. The diagnostic framework provided by HRV helps to structure the investigation of potential binding constraints. It has been refined through application, both within MCC and the broader economic development community.

Why Does MCC Use Constraints Analysis?

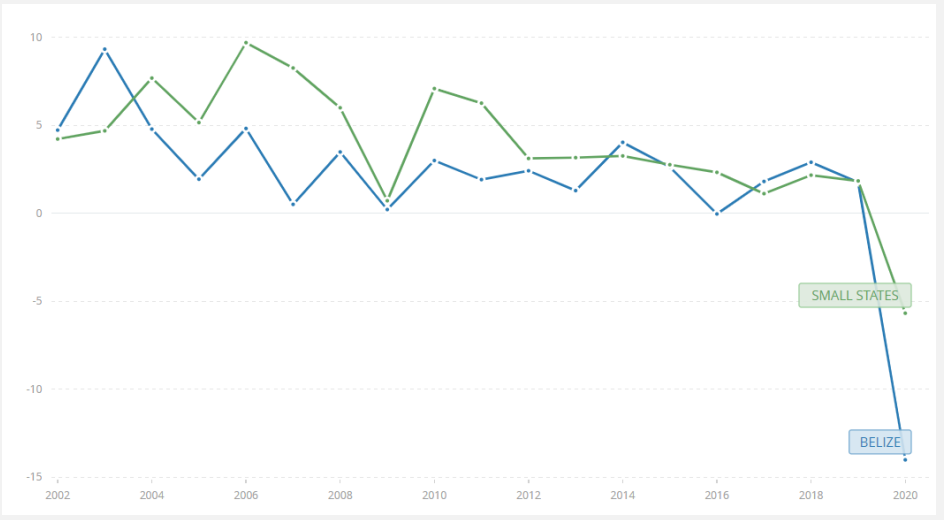
Identifying the most binding constraints to growth helps MCC target its investment on the areas that, if addressed, are most likely to promote sustainable, poverty-reducing growth in a given country. Prioritization helps maximize the limited financial resources and implementation capacity needed to effect change. As HRV also argue, focusing on the most binding constraints helps to minimize the risk that development interventions create negative unintended economic consequences.

rates of 13.7% in 2020. Reflecting on muted growth and slow recovery after the global economic recession from 2007-2011, Belize's growth trajectory will continue to suffer long-term impacts of the pandemic.

Review of Past Constraints Analyses

Despite data challenges—for example, the most recent poverty statistics for Belize from the World Development Indicators (WDI) are from 1998, and the last household survey in Belize was conducted in 2009—there have been multiple growth diagnostics analyses of Belize in the last 15 years.

Figure 2 GDP Growth in Belize compared to Small States average, 2002-2020 (vertical axis is % annual growth)



Hausmann and Klinger (2007) found a single binding constraint to growth in Belize: a high cost of finance attributed to low national savings and weak access to external savings. In an expansion of this work, Hausmann and Klinger (IDB 2010) recharacterized the binding constraint as the high cost of finance attributed to poor budgeting institutions and lack of fiscal discipline, low savings, taxation on financial intermediation, and inefficient and uncompetitive domestic financial intermediation. Five years later, an IDB growth diagnostic (Martin 2015) assessed that the high cost of finance constraint was no longer binding, drawing on evidence of a 4.5 percent reduction in the real interest rate from 2007-2014. Instead, the analysis found an anti-export bias of public policies to be the binding constraint and cited taxes, transport, and crime as near-binding. The following year, the World Bank (2016) systematic country diagnostic for Belize listed a longer set of binding constraints to growth: (i) weaknesses in infrastructure that exacerbate impacts of natural disasters; (ii) poor quality of education that directly impacts the quality of the labor force; (iii) increasing crime and violence; and (iv) lack of competition and stability in the financial sector. Finally, the most recent growth diagnostic

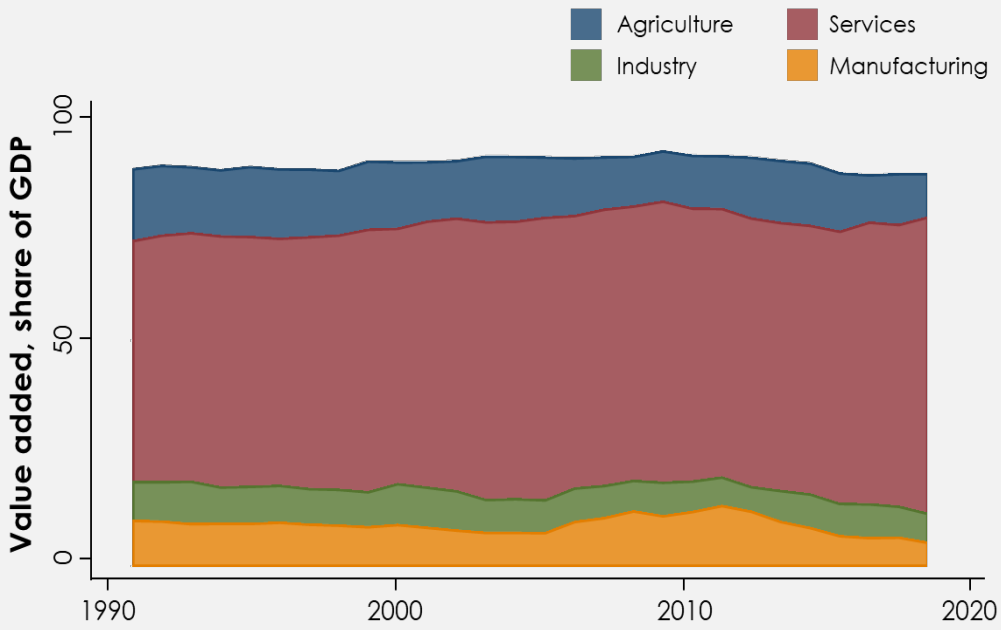
(IMF 2019) circled back to the finance constraint and added a macro constraint: (i) high cost of finance attributed to poor intermediation, underscored by a high risk premium and a significant loss of credit banking relationships (CBRs) in 2015-2016; and (ii) high public debt and fiscal sustainability risks, which require high taxes and tariffs to reduce the debt burden. The diagnostic also considered other social returns constraints to be near-binding: a deficit of employees with higher education, violent crime that discourages tourism and investment and reduces fiscal space by increasing security spending, natural disasters and vulnerability to climate change, and weak infrastructure quality and resiliency..

Growth Question

Constraints can impact different sectors of the economy in different ways. To appropriately verify the binding constraints to economic growth it is essential to understand how each constraint impacts high potential growth industries (HPGIs). An analysis done by MCC found that the HPGIs were agriculture, business process outsourcing, and tourism.

These industries encompassed 11 percent, 9 percent, and 40 percent of GDP, respectively. Each of these were included as HPGIs for different reasons. Agriculture, while experiencing relatively stagnant growth and representing a decreasing share of GDP over time, is the second largest sector, employing 17 percent of the population in 2019. Business process outsourcing, while smaller with relatively low employment, is one of the fastest growing sectors in Belize in recent years. Finally, tourism represents the economy's largest sector with both high growth until the Covid crisis, and high employment levels.

FIGURE 3: Value added as percent of GDP by sector



Discussion of Constraints

Belize faces many challenges in growing its economy. The constraints analysis aims to diagnose which elements in the economy are most binding on its growth based on a suite of empirical tests and consultation with country counterparts.

This constraints analysis Draws on earlier assessments which contributed to determining which constraints are the most binding, particularly as one or several previously identified constraints are likely to have been exacerbated as the COVID-19 pandemic lingers. It is also likely that multiple constraints, in vicious complementarity, will spurn private investment in HPGIs.

The current analysis finds several obstacles that impede Belize's growth path. The five identified potential binding constraints to growth are:

- **Education:** Low quality of education has led to a shortage of trained professionals in all industries.
- **Government regulation and tax policy:** Tax policy, licensing, and permitting increase business costs and limit market entry.
- **Electricity:** High cost of electricity drives up input costs for all industries.
- **Natural capital management:** Degradation of coastal and marine resources constrains growth in tourism.
- **Access to finance:** Limited access to finance is constraining SMEs' ability to optimally invest.

Each of the identified potential binding constraints to growth impact not only broad economic growth in the Belizean economy, but also influence the success of HPGIs in Belize. For example, a shortage of skilled workers impedes a transformation to high-quality, sustainable tourism; growth in employment in thebusiness process outsourcing sector; and increased agricultural productivity (which is comparatively low for the region).

A heat map of the potential constraints and their impact on each HPGI is shown below, with red being highly constraining and green being minimally constraining. The final row of this heatmap was derived from complementary research produced by the Gender and Social Inclusion team through a Constraints to Inclusive Growth Analysis (CIGA), which identified traditionally struc- turally-excluded groups in Belizean society, and then examined how relaxing each constraint might positively or negatively impact members of these groups.

FIGURE 4: Heat Map for Potential Constraints to Growth in Belize

	Education	Regulation	Electricity	Natural capital management	Finance
Agribusiness/Agriculture					
Business Process Outsourcing					
Tourism					
Impact on Poverty and Inclusion					

Comparator countries

The constraints analysis contrasted the economy of Belize to that of a set of comparator countries. Selection criteria for comparator countries were GDP per capita, population density, total population, and tourism receipts as a percent of exports and of GDP. This led to a list of six countries that matched these criteria, shown in Table 1 below.

TABLE 1: Core Comparator Countries

	Per capita income	Population Density	Population	Tourism as percent of exports	Tourism as percent of GDP
Jamaica	$5,250	273	2,961,161	48	15
Fiji	$5,800	49	896,444	51	30
St. Vincent and the Grenadines	$7,460	284	110,947	78	30
Dominican Republic	$8,100	225	10,847,904	38	10
Montenegro	$9,130	46	621,306	53	27
Grenada	$9,770	331	112,519	88	53

While these comparator countries are the primary ones used in this analysis, they are subject to substitution when data from core comparators are missing or when the Belize- and constraint-specific context leads to a poor match with the primary comparators (for example, Belize is more like its non-island neighbors when examining constraints in the energy sector). Where deemed appropriate and where data are available, the list of comparators has been expanded to include all comparators in Table 1, plus the list of "Caribbean tourism intensive" comparator countries used in the IMF's 2019 growth diagnostic that were not identified as primary comparators: Antigua and Barbuda, the Bahamas, Barbados, Dominica, St. Kitts and Nevis, and St. Lucia.

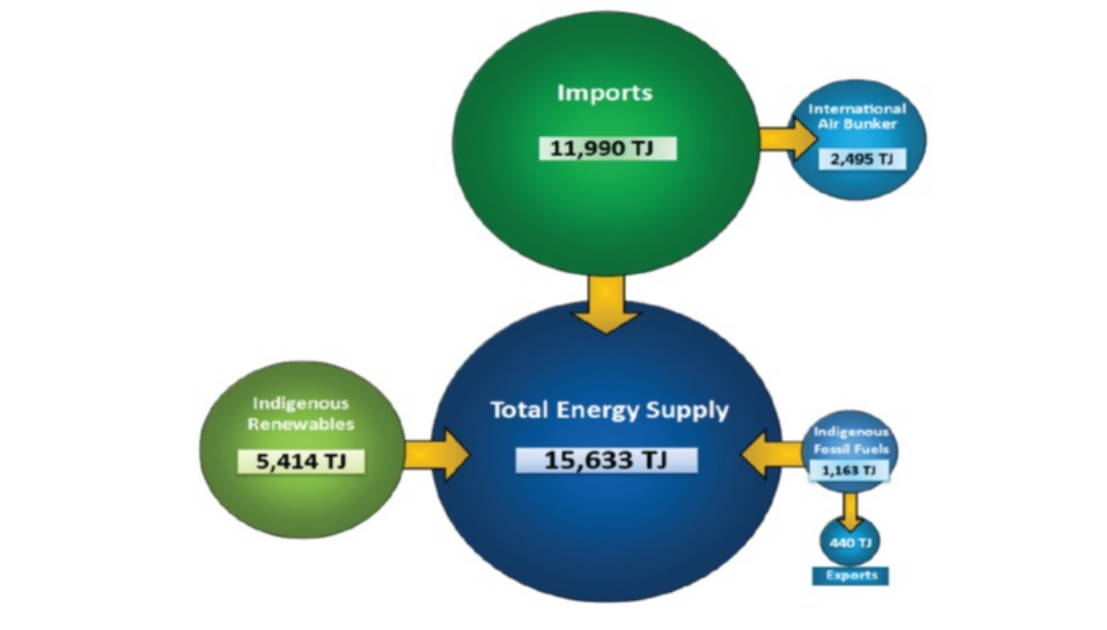
The following sub-sections address each one of the potential binding constraints to growth in more detail. Later sections touch on the additional constraints that the analysis considered.

Energy

Energy infrastructure, specifically the electricity network, is a binding constraint to growth if it imposes significant costs on businesses either through the direct cost per kilowatt hour (kwh) or low access/reliability forcing businesses to rely on alternative generation sources.

Belize has some local power generation, primarily hydropower, but local generation is far below demand and 65 percent of electricity supply comes from purchase agreements with Mexico's Federal Electricity Commission (CEF) with highly variable prices.

FIGURE 5: Energy Supply in Belize, DATE. Source:



Local energy supply is dominated by hydropower and biomass. As shown in Figure 6 below, renewable energy made up over 50 percent of electricity generation in 2010-2018; however, it suffered a dramatic drop in 2019 due to severe drought conditions impacting both hydropower and biomass generation. While energy generation recovered in 2020, the reliance on hydropower and biomass leaves the system highly vulnerable to shocks, driving up reliance on importing from Mexico.

FIGURE 6: Renewable energy as a share of electricity mix

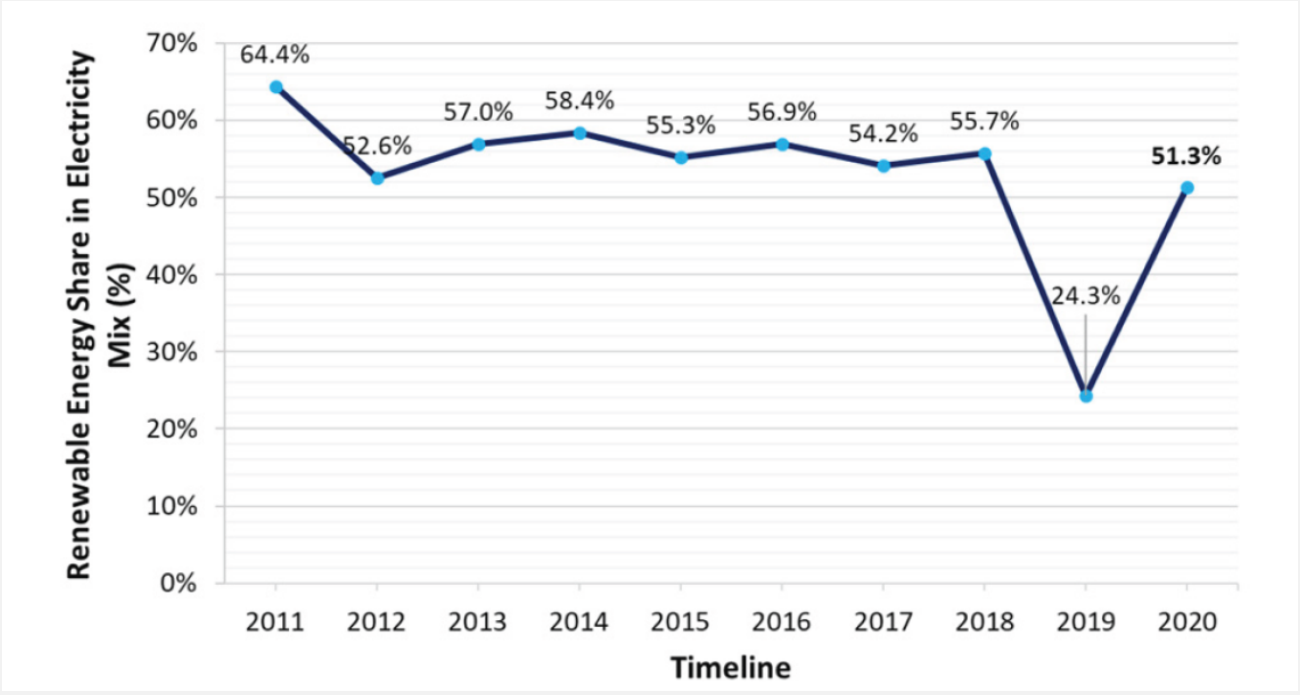
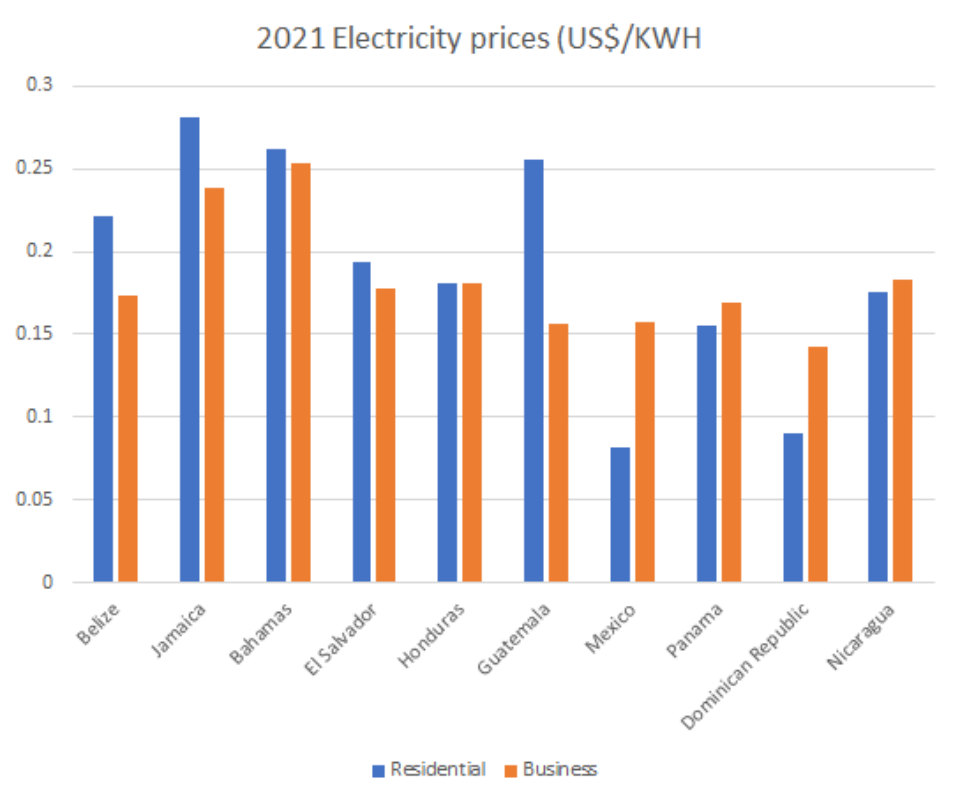


FIGURE 7: Electricity Prices, Belize and Comparators



Access to electricity in Belize is at 92 percent, and the network is largely stable with few complaints of black-outs.[2] Transmission and distribution (T&D) losses at 11.8 percent are well below the Central American average T&D losses of 15.62 percent.[3] These T&D losses have been relatively stable since 2010.

The cost of electricity per kwh, shown below, is slightly higher than average for the region but notably higher than average when excluding island nations. The average of residential and industrial costs is higher than any mainland Central American country apart from Guatemala. Costs are high for both local production and CEF imports; however, of the two electricity sources, CEF imports drive price uncertainty. CEF purchases are not through a long-term contract and are instead spot purchased on the market. This raises the risk that energy sold may not meet demand, and the price can vary widely, making annual costs difficult to predict. The overall cost per kwh has been noted as a significant concern by BPOs, agro-businesses, inland tourism services, and hotel associations.

Low transmission and distribution losses, low blackout rates, but high costs show a scenario where the cost of generation is driving up prices despite a relatively efficient utility. The costs being well above mainland comparators and frequently mentioned as a core constraint in interviews, elevate electricity as a binding constraint to growth.

2 Belize Ministry of Energy and Chamber of Commerce discussions in virtual mission January-February 2022.

3 Belize Ministry of Energy 2020 summary report.

Education

Government expenditures on education are high relative to comparators at 22.1 percent of all government expenditures in 2019 (Figure 8). These expenditures have also remained consistently high for the past two decades. Low population density is a key contributor to these costs; however, there is little evidence of a positive relationship between spending rates and school achievement (IDB 2013).

Despite the high expenditures on education, primary school repetition rates remain relatively high at 6.7 percent in 2018, implying low quality of education (Figure 9). Test scores further indicate poor performance, with over half of primary students scoring below satisfactory on student performance exams. Students in rural areas perform worse than their peers in urban areas (Figure 10).

FIGURE 8: Government Expenditure on Education, Belize and Comparators

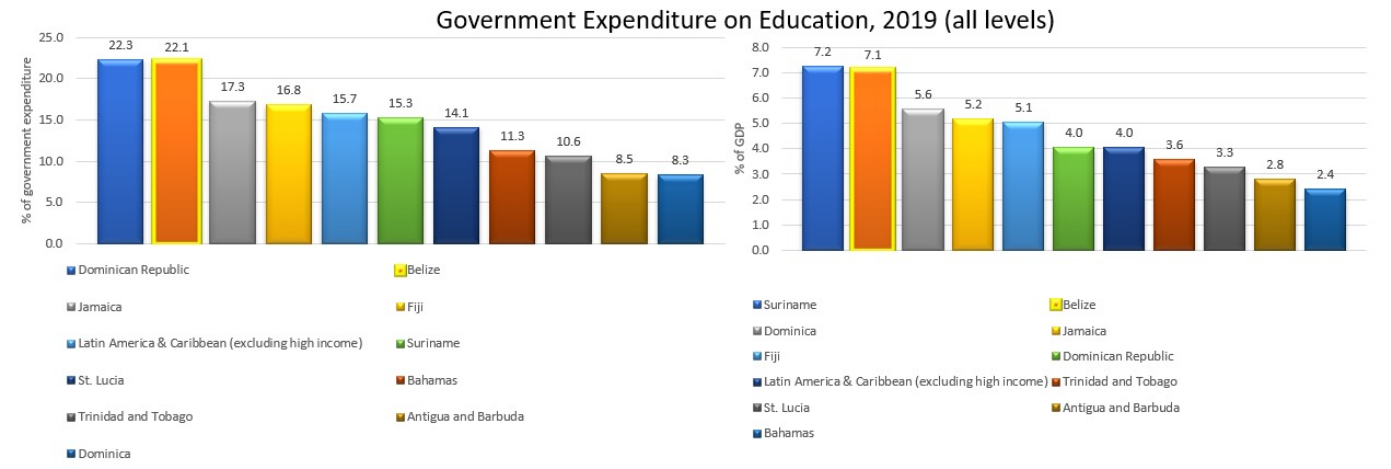


FIGURE 9: Primary School Repetition Rates, Belize and Comparators

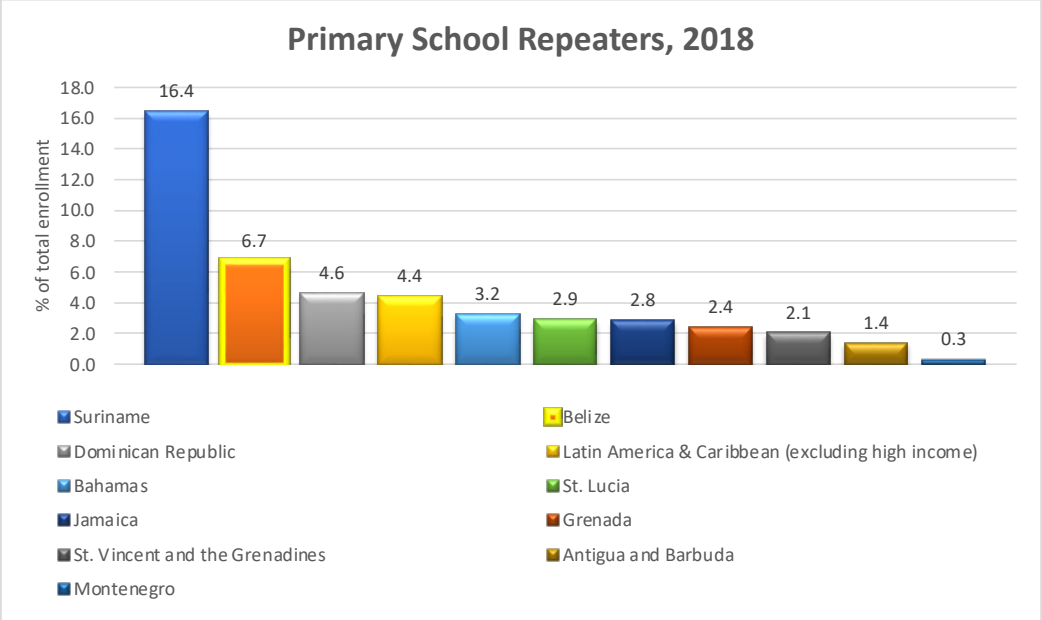
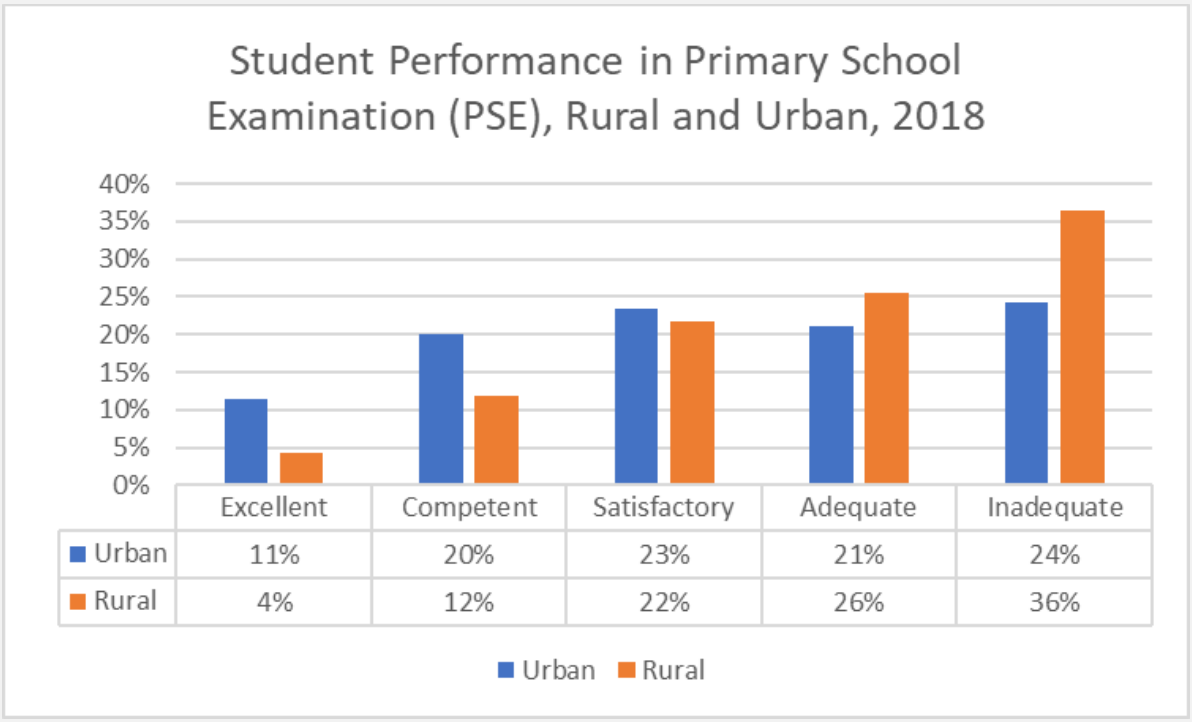


FIGURE 10: Belizean Primary School Examination Results, Urban vs. Rural



Secondary education mirrors these performance issues, with high repetition rates (averaging 5 percent annually) and low test scores. This is further exacerbated by high dropout rates and low net enrollment—at only 50 percent in 2020 and on a continuous decline from a 66 percent enrollment rate in 2012.

In-country interviews have strongly indicated education is a constraint to growth, with all business interviewees emphasizing that the lack of basic skills among employees is inhibiting their ability to expand. Representatives of the tourism and BPO sectors in particular note that the lack of adequate English skills and basic computer skills make hiring difficult.

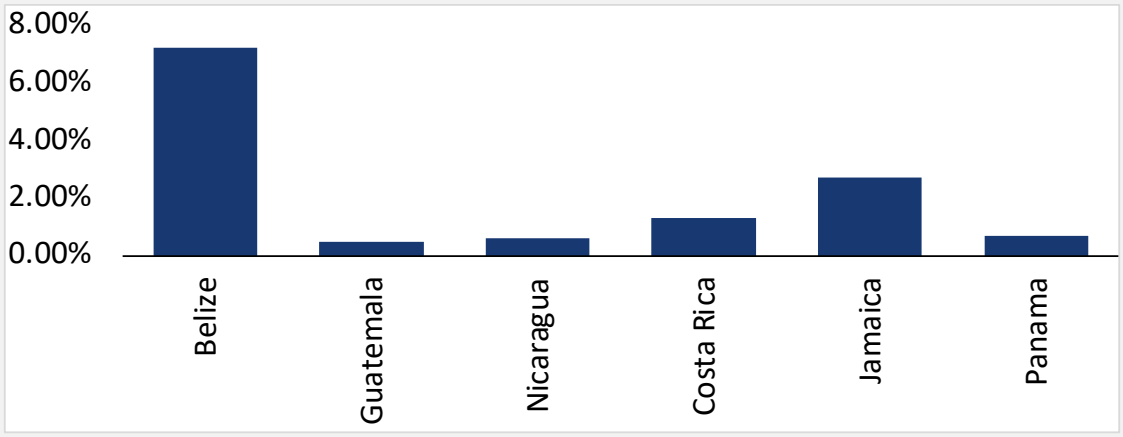
Overall, the data indicate that despite high expenditure per student, performance remains low in both primary and secondary education. Relatively few students complete secondary school, and those who do are perceived to be lacking in skills needed for private sector jobs in Belize. The low quality of education is identified as a potential binding constraint to growth for businesses in all sectors. Low participation in optional secondary schooling particularly impacts minorities such as Mayan groups and the poor.

Government Regulation and Tax Policy

Businesses in Belize have been constrained by high levels of regulation, particularly in the agribusiness sector, and high tax and tariff rates limit the ability of businesses to reinvest profits and import supplies.

Belize ranks poorly in Doing Business indicators, ranking 166th in starting a business and 137th in registering property and managing regulation. Business interviews indicated a frequent theme of excessive regulation—particularly regulation identified as a legacy of the colonial era—is inhibiting the ability of businesses to register property, acquire import and export permits, and, particularly in the agricultural sector, acquire permits to send product to refineries.

FIGURE 11: Trade tax revenue as a % of GDP



High import duties are reflected in trade tax revenues reaching 7 percent of GDP in 2019, well above comparators (Figure 11). Regulation and import/export policies also raise the cost of exporting, with overall costs above all regional comparators apart from Mexico; non-tariff barrier costs are driven primarily by high costs of document preparation and port/terminal handling (IDB 2020).

Import tariffs, in addition to being above comparators, also inhibit business confidence through being highly irregular. Tariff rates vary widely by product, with 40 percent of products subject to a tariff rate over 15 percent in 2018. These variable tariff rates can cause the trade tax revenue to GDP ratio to vary widely by year as business import needs shift; the weighted mean tariff rate jumped from 11 percent in 2018 to 18 percent in 2020 simply as business shifted what products they needed to import.

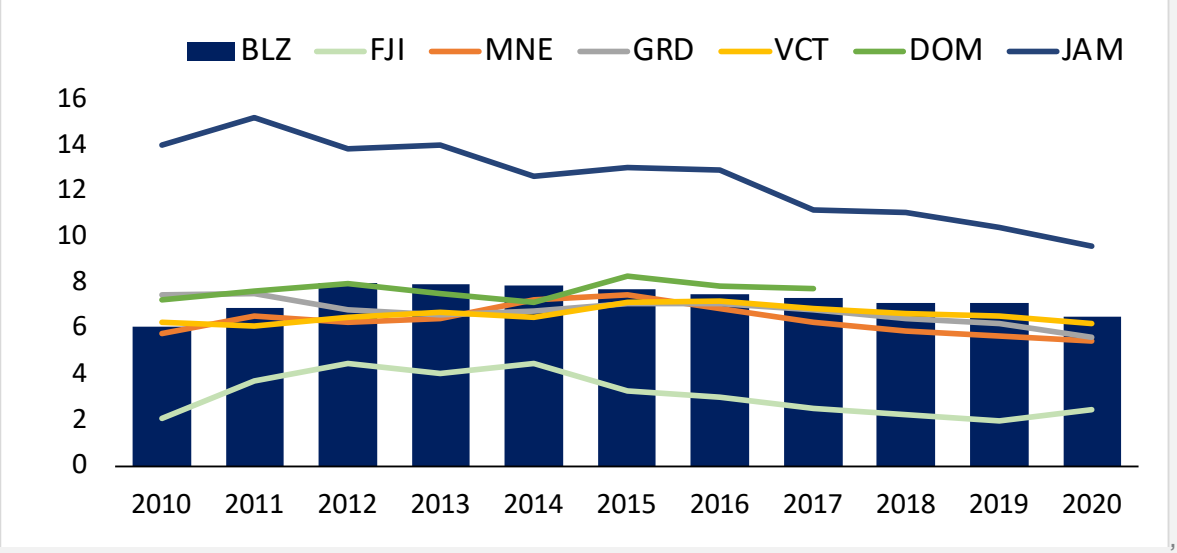
Overall, the cost of permitting and regulation has been noted as a constraint by all business sectors—with a particular emphasis by agro-businesses—with colonial era regulation limiting the ability of agro-businesses to buy product from farmers. The tourism sector furthermore notes that high levels of regulation severely restrict their ability to import both luxury goods and basic hotel necessities such as linens.

Access to Finance

Access to finance has been identified as a constraint to growth in Belize in 2008 (Hausmann), 2016 (World Bank), and 2019 (IMF) due to high interest rates, collateral requirements, and high bank profitability.

Interest rates are slightly above average for comparators at 6.6 percent in 2020 (Figure 12); however, firms generally rely on banks to finance investments to a greater extent than comparators despite the high rates.

FIGURE 12: Interest Rate Spread, 2010–2022



Collateral requirements are the core aspect of the constraint with most SMEs interviewed by MCC identifying the ability to prove collateral as the biggest obstacle to access to credit. This is also reflected in enterprise survey business interviews where 68 percent of businesses identify access to credit as a constraint to growth; this is well beyond any comparator, with the second most constrained economy being Costa Rica at 42 percent. In Doing Business indicators, Belize ranks 173rd in the world on Access to Credit score, with the low rank due primarily toBelize scoring 0 out of 100 for depth of credit information. Belize has neither a credit bureau nor a public credit registry.

While overall interest rates are only slightly above average and large businesses do use banks regularly, the lack of credit information in the country—coupled with significant collateral requirements—locks much of the small and medium enterprises and start-up businesses out of the financial network.

Natural Resource Management

Belize's reliance on the tourism sector, which encompasses 40 percent of GDP in 2019, means the economy is uniquely dependent on the quality of natural tourist attractions. Tourists to Belize dive (17 percent), snorkel (63 percent) and visit the barrier reefs (59 percent), and reef-related tourism is valued at 218.8 million USD per year. The World Bank estimates in 2021 that 50 percent of employment is dependent on reef-related livelihoods.

Coral reef health remains critical to the national economy, while coral bleaching has doubled from 2014 to 2017. Overall coral reef health is only 'fair' and degrading in Belize as of 2021. Given the necessity of reefs to the tourism economy, preserving the health of offshore resources is essential for continued economic growth and has been noted as such by the government. Progress has been made in alleviating this constraint with the introduction of the Blue Bond. Signed in late 2021, the Blue Bond provides $364 million for marine protection, coral reef restoration, and improvements to sustainable tourism.

At this time, projects have not been identified for Blue Bond funds, and $364 million is a significant fund given the relatively small size of Belizean economy. Natural capital management is seen as a clear constraint given the economy's reliance on degrading coral reef resources, but with the understanding that additional funding is likely to be adequate for the management of natural resources in the short term.

Non-Binding and Near-Binding Constraints

In addition to the potential binding constraints to growth discussed above, this analysis considered an array of other potential constraints to economic growth. Even though not all considered constraints are analyzed in this report, two areas of note are (i) poor quality of secondary roads connecting farms to market, which was noted as a constraint for the sugar industry in Orange Walk; and (ii) the high crime rates in Belize, with 40 homicides per 100,000 inhabitants certainly having some degree of impact on the economy. Overall, transport was only raised as a constraint for agriculture, with Belize having a relatively good public road network for its population density. Stakeholder interviews across sectors indicated low losses due to theft and low spending on security by businesses. Thus, road infrastructure and crime were not considered to rise to the level of potential binding constraints to growth. However, how crime impacts educational outcomes for youth is an aspect of the education constraint.

Conclusion

The five binding constraints identified in this report were presented to the Government of Belize by MCC on March 15th, 2022. Of these constraints the government selected the Education and Electricity as the two constraints which compact projects will be developed to address. Root Cause Analysis and project development began in April of 2022.

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