

Island Government of Public Entity Saba

Socioeconomic Impact Assessment
Final Report

September 2024

Disclaimer

Ernst & Young LLP ("EY") was engaged by the Island Government of Public Entity Saba ("PES") to conduct a socioeconomic impact assessment for the upgrade of Fort Bay Harbor and the construction of the Black Rocks Harbor Project ("the Harbor Project") in the Island of Saba. In preparing this document (the "Report"), EY relied upon unaudited data and information from PES, external stakeholders, and publicly available data ("Supporting Information"). EY did not audit or independently verify the accuracy or completeness of this information and therefore accepts no responsibility for errors, omissions, losses or damages because of any persons or entity relying on this Report for any purpose other than that for which has been prepared. Accordingly, EY expresses no opinion or other forms of assurance regarding this information and reserves the right to revise any analyses, observations or comments should additional Supporting Information become available.

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Acronyms

The following key terms are used in this report and defined here:

Term	Acronym
Annual Average Growth Rate	AAGR
Capital Expenditure	CAPEX
Economic Impact Assessment	EIA
Ernst & Young	EY
Foreign Direct Investment	FDI
Full Time Equivalent	FTE
Gross Domestic Product	GDP
Input-Output	I-O
Key Performance Indicators	KPI
Operating Expenditure	OPEX
Public Entity Saba	PES
Research and Development	R&D
Year over Year	YOY

1. Executive Summary

The Island of Saba is a special municipality of the Kingdom of the Netherlands and home to a population of over 2,000 people. The Saba people have a rich and extensive history and culture, with English and Dutch being the official languages. Saba has a small economy which is dependent primarily on the public sector and the local tourism industry. The island is also home to a medical university, which is an integral part of the local economy. Fort Bay Harbor is the only port on the island of Saba, serving as the lively center of activity for local fishermen, dive operators, ferry services, and shipping companies. It is a multifaceted facility where nearly all of island's goods are transported, making it an essential part of the Saba's economy. The harbor accommodates both commercial and leisure marine activities, handling everything from daily essentials to tourist operations, and is vital for the import and export of goods to the local economy.

Despite its significance, Fort Bay Harbor faces capacity constraints and has sustained damage from Hurricane Maria in 2017. As the harbor is a lifeline for the island, PES plans to upgrade the existing infrastructure of the Fort Bay Harbor to improve its resilience to extreme weather events, and support its broader functionality and capacity. Additionally, to further strengthen the island's maritime services and accommodate future growth, the government is exploring the feasibility of constructing a new harbor at Black Rocks, located 1.2 kilometers east of Fort Bay.

After completion, Fort Bay Harbor will serve as the cargo harbor, while new Black Rocks Harbor is expected to be used by all other vessels including the local fleet, ferries, visiting yachts, and all other local vessels.

Purpose of the Report

Ernst & Young LLP ("EY") was engaged by the Island Government of Public Entity Saba ("PES") to conduct an economic impact assessment for the upgrade of Fort Bay Harbor and the construction of the Black Rocks Harbor Project ("the Project" or "the Harbor Project") in the Island of Saba.

As part of the engagement, EY conducted the following:

1. An assessment of the economic impacts associated with the construction and operations of the Project through financial inputs from PES, and EY's proprietary economic impact assessment model. This includes impacts to key economic indicators such as gross domestic product ("GDP"), labor income and job creation.
2. A review of the broader socioeconomic impacts as a result of the Project, which include but are not limited to increased tourist demand, supply chain efficiencies, increased trade activity, follow-on investments, and other socioeconomic benefits.

Summary of Findings

With funding provided by the national government to PES after hurricane Maria, the Project was initiated. The Project includes an upgrade of the current cargo facilities at Fort Bay Harbor (without an extension of the pier), and the construction of a new harbor, 'Black Rocks Harbor. The current Project timeline is expected to be as follows:

- ▶ September 2024 - Contract award for project bidders
- ▶ September 2024 to September 2025 - Preparatory works
- ▶ September 2025 to December 2026 - Construction of Black Rocks Harbor
- ▶ September 2025 to December 2026 - Upgrades to Fort Bay Harbor

Please note that the construction timeframe for the Black Rocks Harbor is anticipated to span over two years, with a significant capital investment (CAPEX) of roughly \$52 million. The upgrades to the Fort Bay Harbor are expected to span over one year, with an expected capital investment (CAPEX) of \$2.7 million.




Economic Impacts

The one-time impacts from Project construction are calculated using the total estimated project expenditures provided by PES. This spending is expected to directly support economic activity, referred to as **direct impacts**. The modelling suggests that from 2025 to 2026, the Project construction activities may directly contribute **\$14.9 million** towards Saba's economy (in GDP), **\$2.4 million** in wages, and sustain **81 FTE** jobs over the construction timeframe.

Saba's economy may also benefit from the business activities that support the construction sector, which are referred to as **indirect impacts**. Additionally, **induced impacts** may also be supported due to the additional wages spent by employees and contractors associated with Project construction. The indirect and induced impacts related to Project construction are estimated at an additional **\$2.1 million** in GDP, over **\$570,000** in wages, and **22 FTE** jobs over the construction timeframe.

The total economic impacts generated by Project construction consist of direct, indirect, and induced impacts. The total impact is estimated at **\$17 million** in GDP, **\$2.9 million** in wages, and **103 FTE** jobs in Saba over the construction timeframe. A summary of direct, indirect and induced impacts from capital spending is provided below.

Table 1. One-time Impacts from Project Construction: Total




	 GDP (\$ millions)	 Labour Income (\$ millions)	 Jobs (person-year FTEs)
<i>Direct</i>	14.9	2.4	81
<i>Indirect + Induced</i>	2.1	0.57	22
<i>Total</i>	17	2.9	103
Notes:	Figures for wages, GDP and output are in millions of US\$. Figures represent cumulative contributions for 2025-2026. Contributions to FTEs from CAPEX are presented in person-years.		
Sources:	PES data and EY calculations.		

Average annual contributions from projected operational spending are estimated from January 2027, after the completion of Black Rocks Harbor construction. On an annual basis, the operations of the new Black Rocks Harbor are estimated to add **\$379,000** towards Saba's GDP, \$189,000 in labour income and sustain roughly 6 FTEs. When indirect and induced impacts are considered, this impact is estimated to be larger, at **\$401,000** in

GDP, \$196,000 in labour income, and 7 FTEs.

A summary of direct, indirect and induced impacts from operational spending is provided below.

Table 2. Future Operations




			
	GDP (\$)	Labour Income (\$)	Jobs (FTEs)
<i>Direct</i>	379,000	189,000	6
<i>Indirect + Induced</i>	22,000	7,000	1
<i>Total</i>	401,000	196,000	7
Notes:	Figures for wages, GDP and output are in US\$. Figures represent annual average contributions starting in January 2027.		
Sources:	PES data and EY calculations.		

Further, with an upgraded harbor facility, the yachting industry may be supported in two ways. Firstly, the number of visitors by yacht may increase, and secondly, the average number of mooring days may rise. In the absence of detailed yachting sector data from PES, proxy information from Bonaire was referenced. Please note that actual passenger volumes from the yachting sector may materially differ based on the number of slips available, among other factors.

On an annual basis, increased yachting activity may directly contribute up to **\$2 million** towards Saba's GDP, **\$592,000** in labour income and sustain roughly **22 FTEs**. When indirect and induced impacts are considered, this impact is estimated to be larger, up to **\$3 million** in GDP, **\$681,000** in labour income and sustain roughly **26 FTEs**.

Based primarily on benchmarked data, the above scenario should be considered illustrative in nature. A more detailed assessment of the regional un-tapped yachting sector, final number of slips at the proposed harbor facility, up-to date tourism statistics from PES, as well as future plans for tourism infrastructure development would be required to provide more detailed estimates. Any impacts to increased tourism through air and ferry are not considered in the above assessment due to data limitations.

Table 3. Illustrative Impacts from Yachting Tourism

			
	GDP (\$ '000s)	Labour Income (\$ '000s)	Jobs (FTEs)
<i>Direct</i>	1,991	592	22
<i>Indirect + Induced</i>	995	89	4
<i>Total</i>	2,986	681	26
Notes:	Figures for labour income and GDP are in thousands of US\$. Figures represent annual average contributions starting in January 2027.		
Sources:	PES data and EY calculations.		

Broader Socioeconomic Benefits

In addition to the economic impact assessment, the potential socioeconomic benefits were assessed through a review of industry research and stakeholder consultations. Potential socioeconomic impacts of the Project include:

- ▶ **Improved supply chains and increased trade activities:** By separating port activities between Fort Bay and Black Rocks, the Project is expected to result in increased cargo capacity. This may in turn facilitate increased trade activities and strengthen local supply chains.
- ▶ **Improved visitor experience and supports to the tourism sector:** The Project is expected to attract a higher volume of tourists by reducing average passenger loading and offloading times, providing dedicated facilities for tourists, improving port security and border control, as well as providing requisite facilities to support the yachting sector.
- ▶ **Follow-on investment:** The new harbor development in Saba is expected to enhance the local real estate market. The construction of additional roads and utility services may have the potential to attract follow on investment in key sectors such as tourism. This, in turn, is likely to lead to more property sales, stimulating economic growth across residential and commercial real estate sectors.
- ▶ **Support for the construction industry:** The Project in Saba is expected to generate more stable work patterns in the construction sector over the course of the construction phase. Additionally, potential follow-on investment may support a more consistent flow of projects and long-term growth in the construction industry.
- ▶ **Other business opportunities:** The development of Black Rocks Harbor may have the potential to enhance the services sector that supports the broader tourism industry. With greater visitor volumes expected, demand for cultural experiences may also rise, thereby supporting local artisans and businesspeople. Additionally, potential impacts may be seen for supporting industries like fishing, quarrying, and other activities that can support the regional economy.
- ▶ **Environmental considerations:** Given the existing risks of weather-related vulnerabilities at Fort Bay Harbor, a suitable location has been chosen for Black Rocks due to its resiliency to environmental hazards, hurricane resistance, as well as future expansion as required. However, the construction of a new harbor and an increase in trade and harbor activity can have the potential to negatively impact the environment. Appropriate mitigation plans are in consideration by PES to ensure environmental protection.

Conclusion

The Saba Harbor Project is expected to generate sizable economic and socioeconomic benefits for the local economy, supporting activities in the construction phase, as well as the future operations of the harbor facilities. Additionally, benefits of the Project are expected to extend into the long-term, supporting socioeconomic benefits in the local economy through its ripple effects and supports to other industries in Saba.

2. Introduction

Background: Saba's Harbor Project

The Island of Saba is a special municipality of the Kingdom of the Netherlands, located in the northern Leeward Islands portion of the West Indies. The Island is roughly five square miles in size and is the smallest territory by permanent population in the Americas, with four main towns: The Bottom (Saba's Capital), Windwardside, St. John's and Zion's Hill with a total population of 2,060.ⁱ Saba is known for its eco-tourism facilities, notably scuba diving, climbing, and hiking, with Fort Bay Harbor and Juancho E. Yraquin Airport as the main ports of entry.

In 2017, Saba was affected by two major hurricanes¹ which caused serious damage to Saba's only port, Fort Bay Harbor. The damage resulted in a large part of the harbor being out of operation, which highlighted the vulnerability of Saba's current port infrastructure. Physical model testing was undertaken to extend the current pier at Fort Bay Harbor, which concluded that this option was not suitable given the current location of the harbor. As a result, a feasibility study was conducted to identify an alternative harbor location in the Black Rocks area, which may be more resilient to hurricane wave heights.

With funding provided by the national government to Public Entity Saba ("PES") after the hurricanes, the Saba Harbor Project ("the Project") was initiated. The Project includes an upgrade of the current cargo facilities at Fort Bay Harbor (without an extension of the pier), and the construction of a new harbor, 'Fort Bay Harbor'. The current Project timeline is expected to be as follows:

- ▶ September 2024 - Contract award for project bidders
- ▶ September 2024 to September 2025 - Preparatory works
- ▶ September 2025 to December 2026 - Construction of Black Rocks Harbor
- ▶ September 2025 to December 2026 - Upgrades to Fort Bay Harbor

Please note that the construction timeframe for the Black Rocks Harbor is anticipated to span over two years, with a significant capital investment of roughly \$52 million. The upgrades to the Fort Bay Harbor are expected to span over one year, with an expected capital investment of \$2.7 million.

After completion of the Project, Fort Bay Harbor is expected to serve as the main cargo harbor, while Black Rocks Harbor will be used by all other vessels (including the local fleet, ferries, and visiting yachts).ⁱⁱ

Engagement Context

EY was engaged by the Island Government of PES to conduct a socioeconomic impact assessment of the Harbor Project. As part of the engagement, EY conducted the following:

- ▶ **Economic Impact Assessment:** Estimation of the economic impacts associated with the construction and operational activities associated with the Project through key financial inputs from PES, and EY's proprietary economic impact assessment model. This includes impacts to key economic indicators such as gross domestic product ("GDP"), labor income and job creation.
- ▶ **Review of Broader Socioeconomic Benefits:** Through a review of industry reports, global benchmarks, and stakeholder consultations, EY identified potential socioeconomic impacts that may be enabled by the Project. These include but are not limited to increased tourist demand, supply chain efficiencies, increased trade activity, follow-on investments, and other socioeconomic benefits.

¹ Hurricane Irma and Hurricane Maria struck within weeks of each other, devastating parts of the Caribbean and causing widespread damage to infrastructure as well as natural ecosystems.

Economic Overview

The Island of Saba is a special municipality of the Kingdom of the Netherlands and home to a population of 2,060 people. The Saban people have a rich and extensive history and culture, with English and Dutch being the official languages. Saba has a small economy which is dependent on the public sector, tourism industry, and medical university.

Economic and Demographic Profile

Over the last ten years, Saba's population experienced 12% growth and is currently estimated at 2,060 as of May 2024. Over the same timeframe, population growth in the Caribbean Netherlands was 25%, largely driven by Bonaire, where immigration has been noted as of the key population growth drivers.ⁱⁱⁱ As of May 2024, the island of Saba exhibited a gender-balanced demographic profile, with males constituting 49.9% and females accounting for 50.1% of the population.

In 2022, the gross labor participation rate in Saba was 67%, compared to 72.2% in the Caribbean Netherlands. However, the unemployment rate in Saba fell from 3% in 2020 to 2.5% in 2022, indicating a rebound in economic activity since the dampening effect of the COVID-19 pandemic. The average annual wage in 2022 was USD \$35,490, highest in the Caribbean Netherlands. Majority of employment in Saba was in the Public Administration and Educational Services sectors, employing almost half of the total workforce. The Culture, Recreation, Other Services sector is the third most prominent sector, highlighting the importance of tourism activities in the regional economy.^{iv}

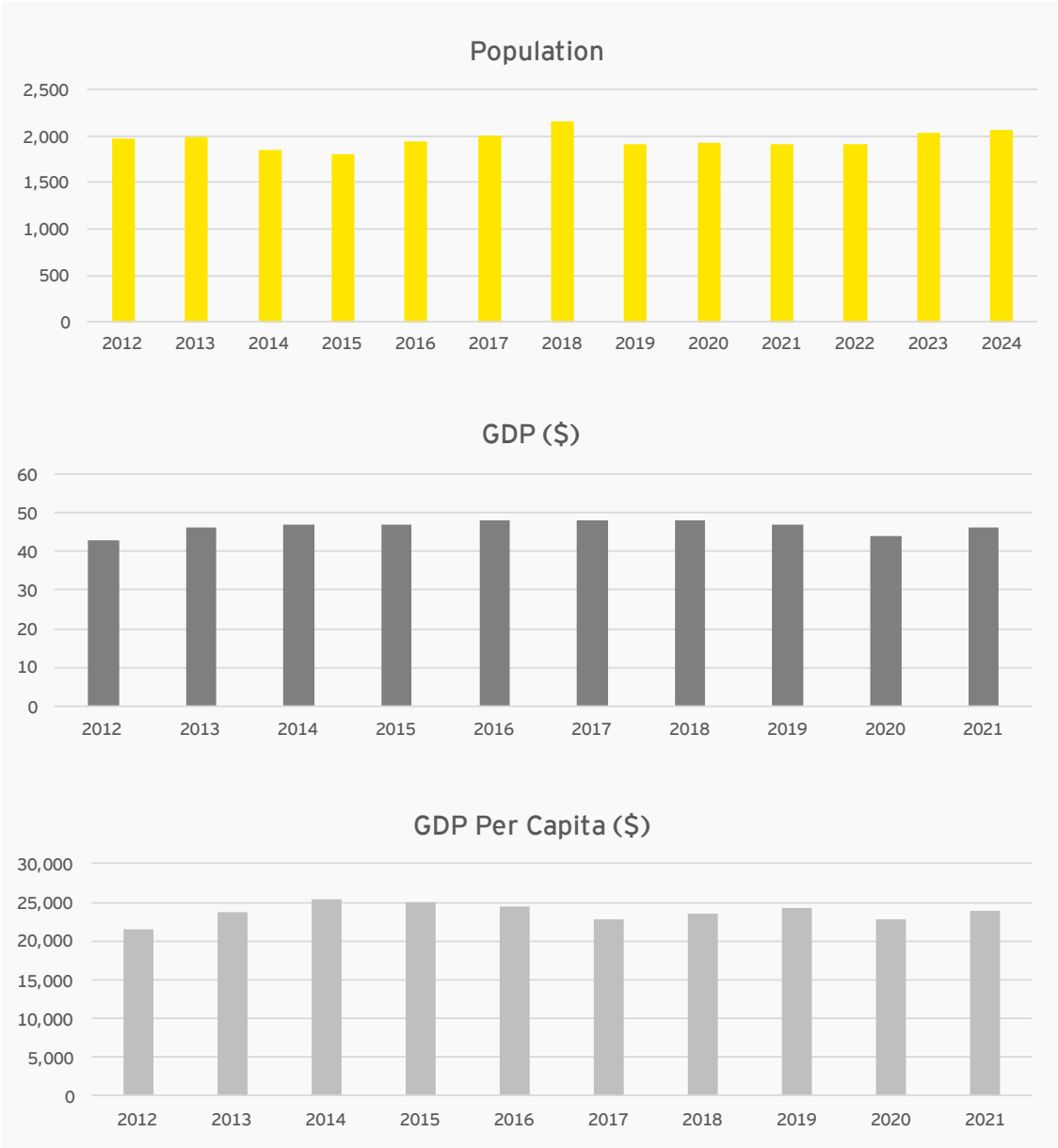
Saba is the smallest economy in the Caribbean Netherlands, with 2021 GDP recorded at \$42 million, and the GDP capita estimated at \$24,000. Over the last ten years, the annual average growth rate ("AAGR") in GDP for Saba was 0.8%, compared to 2.8% for the Dutch Caribbean. Given that Saba has experienced slower population and GDP growth relative to other islands in the Caribbean Netherlands in recent years, this indicates potential areas of the economy that may be further developed to spur economic development. Thoughtful investment and strategic planning may help to realize this potential, contributing to Saba's economic expansion and future prosperity.

Table 4. Economic Snapshot

Indicator	Saba	Caribbean Netherlands
Population (2024)	2,060	30,397
% Male	49.9%	51.8%
% Female	50.1%	48.2%
10-Year Population Growth	12%	25%
GDP (2021)	\$42 million	\$735 million
Labour Productivity (GDP per capita, 2021)	\$24,000	\$27,000
Average Annual Wage (2022)	\$35,490	\$28,390
Unemployment Rate (2022)	2.5%	3%

Source: Central Bureau of Statistics

Figure 1. Key Economic Trends, Saba



Source: Central Bureau of Statistics

The Tourism Sector

Saba's economy is dependent upon tourism. From May 2021 to May 2022, Saba welcomed approximately 10,000 international visitors. The United States yields the largest number of international travelers to the island, with St. Maarten following closely. St. Maarten operates both scheduled and chartered flights as well as ferry rides to the island, supporting the regional tourism economy. Additionally, services providers also offer ferry rides from St. Eustatius to Saba, providing access to visitors for day trips and potential overnight stays.

Tourism represents the significant portion of the island's economy, contributing about 25% of approximate \$50 million economic output.^v The expansion of tourism is poised to strengthen the island's economic framework by boosting the demand from visitors and creating avenues for employment, entrepreneurship, and community engagement for residents. The growth in tourism also facilitates reduce poverty levels and elevate the overall well-being and contentment of the residents. Furthermore, tourism serves as a catalyst for economic prosperity that yields beneficial outcomes for the island, while simultaneously fostering appreciation for indigenous culture and promoting the preservation of the environment.

The motivations driving tourists to choose Saba as their destination include relaxation and unplugging, wellness, cultural experiences, Mount Scenery, and diving.

Between 2014-2019, the number of visitor arrivals by air to Saba remained virtually unchanged. However, tourism fell drastically in 2020 due to the COVID-19 pandemic, and the latest provisional figures for 2023 currently stand at 5,700, which is significantly lower than the pre-pandemic average of 9,033 for that period. Despite this, the 2023-2028 Strategic Tourism Master Plan has outlined an action plan to increase visitation to approximately 19,200 visitors per year by 2028. The potential tourist spending (on accommodation, food, and other tourist-related activities) is expected to be \$18 million per year.^{vi}

Figure 2. Tourism Trends, Saba



Source: Central Bureau of Statistics

Looking Ahead

In recent years, the global economy has faced numerous challenges including (but not limited to) increasing instances of climate-related events, the COVID-19 pandemic, macroeconomic slowdown, geopolitical tensions, and global supply chain challenges. Such factors have affected global economies in a variety of ways, highlighting the need for economic diversification and resilience.

To support future economic growth in Saba, the State Committee Demographic Developments 2050 highlights that prioritizing labour migration for critical sectors and addressing economic vulnerabilities will be key factors.^{vii} At the same time, addressing the existing housing challenge should be one of Saba's priorities, as the physical space for housing and other activities is observed to be more limited than on Bonaire and Sint Eustatius.

Overview of Port Operations in Saba

Fort Bay Harbor is the only port on the island of Saba, serving as the lively center of activity for key stakeholders. It is a multifaceted facility where practically all of island's goods are transported, making it an essential component of the Saba's economy. The harbor accommodates both commercial and leisure marine activities, handling everything from daily essentials to tourist operations, and is vital for the import and export of supplies and goods.

Fort Bay Harbor

Saba's only port, Fort Bay Harbor offers services to local fishermen, dive centers, cruise and ferry services, and shipping companies which play a significant role in Saba's national economy. The harbor is also home to the marine research station, which is run by the Saba Conservation Fund.^{viii} As Fort Bay Harbor is utilized for all of Saba's commercial and leisure activities, the port remains busy throughout most of the year.^x Fort Bay Harbor has two primary piers: the eastern Capt. Leo Chance Pier measuring 12 to 18 feet was constructed in 1972 to protect from the dominant easterly/southeasterly waves and is utilized by cargo and dive boats.^{xi} The smaller multipurpose pier on the western side measuring 6 to 8 feet was constructed in the 1990s and is used by local fishermen. Fort Bay Harbor also hosts the Harbor Office, Customs & Immigration, Saba Marine Park, Gas Station, shower facilities, hyperbaric chamber, and the island's major restaurants.

Figure 3. Fort Bay Harbor



Source: PES Internal Documentation

PES has planned on upgrading Fort Bay Harbor to cater for increased demand for port operations. However, after testing and feasibility studies, a large expansion of the Fort Bay Harbor was ruled out due to stability concerns arising from hurricanes. Therefore, PES is planning smaller upgrades, such as maintenance dredging of the berth, repairs to the main pier, increasing the storage area and widening the existing the existing ramp.

^{xii} These capital works are expected to cost \$2.7 million.

Black Rocks Harbor

As part of Saba's Harbor Project, PES is planning to build a second harbor at Black Rocks, located 1.2 kilometers east of Fort Bay Harbor. The location was found to be the most suitable amongst all proposed locations due to the ability to withstand hurricanes and having a larger area for more land-side development, both now and in the future. **Figure 4** below presents a geographical view of Saba, indicating the proposed site for the new Black Rocks Harbor alongside the current Fort Bay.

Figure 4. Location of Black Rocks Harbor



Source: PES Internal Documentation

Upon completion of the Harbor Project, Fort Bay Harbor is expected to function as the main cargo harbor whereas tourist activities would be handled at Black Rocks Harbor. The separation of small vessel/tourist activities from commercial activities is expected to achieve operational efficiencies such as safety improvements and an improved visitor experience for tourists. An illustration of the scope of works construction for the Black Rocks Harbor is provided below, along with further land-slide facilities, such as buildings, sheds, landscaping etc., that can be developed after the construction of the main harbor.

Figure 5. Planned Harbor Facility at Black Rocks



Scope of works construction Black Rocks Harbor



Masterplan land -side development Black Rocks Harbor

Source: PES Internal Documentation

Such a project may have the potential to generate sizeable economic benefits for the island economy, through the planned construction activity, as well as future operations.

3. Methodology

3.1 Economic Impact Assessment

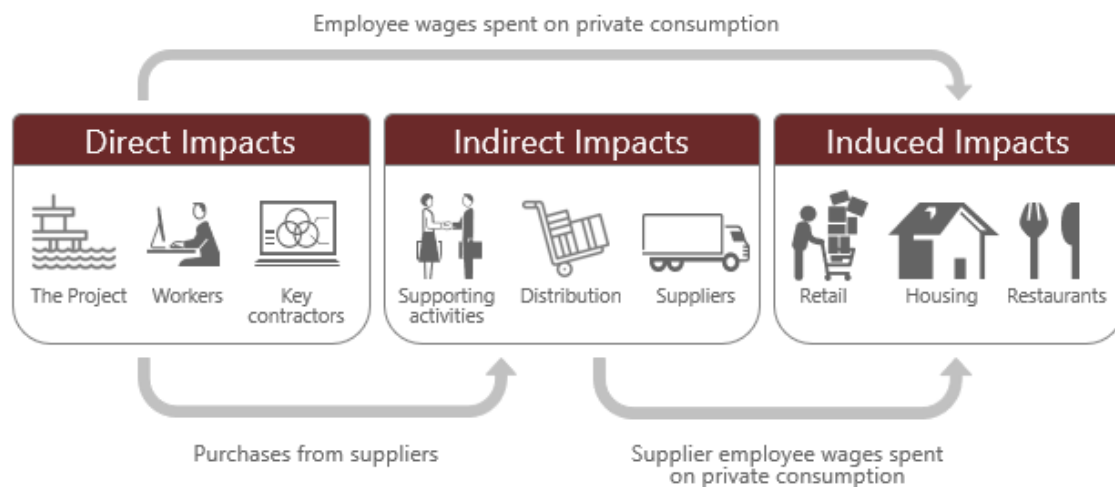
EY's proprietary EIA model has been used to assess the economic impacts associated with the Harbor Project, both in its construction phase and future operations. EY undertook a comprehensive EIA using detailed data from PES (for both Project CAPEX and future OPEX), Statistics Netherlands, and EY's proprietary economic modelling tools. These tools are based on the principles of the Input-Output ("I-O") model described in **Appendix A.1** and are designed to capture the potential economic benefits associated with every dollar of industry spending occurring in the local economy. Further details on EY's tailored approach to the analysis are outlined below.

Overview of the Input-Output Model

A static economic impact assessment model was used to estimate how Project spending in Saba translates into economic impacts through linkages along industry supply chains.

The economic impact assessment model translates direct impacts from the spending inputs into indirect and induced economic impacts, which collectively define the total economic impact of the Project. Below is an illustration of our proven methodology to estimate the economic impacts.

Figure 6. The I-O Framework



The economic impacts associated with the Project were captured through three distinct channels: direct, indirect, and induced impacts. These impacts individually, and collectively represent how planned Project spending is expected to ripple throughout the economy. These impacts are described as follows:

- ▶ The direct impact includes the economic impacts supported directly by the capital and operational spending associated with the Project. These include, for example, spending on capital equipment or employee wages and benefits;
- ▶ The indirect impact includes the economic impacts from supporting industries supplying goods and services to the Project. The indirect impacts include, among other things, the contributions from suppliers' spending when purchasing goods and services from other suppliers. This could include, for example, the costs by subcontractors hired to provide goods and services to support Project activities; and,

- ▶ The induced impact includes the economic impacts that occur when employees and contractors associated with the Project spend their additional wages and salaries on consumer goods and services. The induced activities are assumed to be primarily in service or consumer-related industries such as retail, transportation, accommodation, restaurants, housing, and finance. The jobs and incomes that result from this consumer spending are also considered induced impacts.

The capital and operational spending associated with the Project is expected to ripple throughout the economy and support economic impacts to indicators such as GDP, wages, and FTE jobs. The descriptions of each of the three indicators are provided below:

- ▶ **Gross Domestic Product:** GDP, or local value added, is a measure of the value of all final goods and services produced in a specific region (i.e., the Island of Saba).
- ▶ **Labour Income:** Description: A component of the local value-added that measures total employee compensation (value of wages and benefits) and proprietor income.
- ▶ **Full-time equivalent (“FTE”) employment:** Full-time-equivalent jobs refer to the total number of employee jobs that are converted to full-time equivalence based on the average full-time hours worked.

The key input to this assessment is estimated Project spending, which was provided by PES. Project spending is expected to occur over two phases:

- ▶ **Construction and Future Operations of the Black Rocks Harbor**
Based on financial information provided by PES (including expected project CAPEX), the potential impacts associated with the construction and future operations of the Black Rocks Harbor have been estimated. These impacts are understood to be incremental to business activity supported by Fort Bay’s current operations.
- ▶ **The Fort Bay Harbor Upgrade**
Based on guidance from PES and available financial estimates (i.e. OPEX estimates), the assessment also includes the potential impacts of upgrading the current Fort Bay Harbor.

Custom Economic Multipliers

As a special municipality in the Kingdom of the Netherlands and has a unique economic structure. As a small island economy, certain industries comprise a large share of business activity, such as tourism and public administration. The proposed Project is expected to introduce new stimulus to the local economy through spending in the construction sector, which support local and regional employment, and contribute to GDP on the island. The model also takes into account capacity constraints, and the potential spillover benefits to neighboring economies.

Due to Saba’s distinct economic features, custom regional multipliers were developed for the local economy. Below is an overview of the key inputs used to develop custom economic multipliers:

- ▶ **Key Inputs:** A custom proprietary economic impact model was developed using local labor market and industry output information, along with a benchmarking analysis to validate findings against industry interlinkages in comparable economies in the surrounding region. Local economic and demographic data for Saba was sourced from Statistics Netherlands and PES. These key inputs were leveraged to develop custom economic multipliers.
- ▶ **Custom Economic Multipliers:** The custom multipliers reflect the extent of impacts expected to occur within the local economy. These economic multipliers depict the interdependence among all industry sectors and how spending flows through supply chains. Each multiplier represents a numerical value that describes the size of the indirect and induced economic impacts for a given level of spending.
- ▶ **Capacity Constraints:** In certain cases, capacity constraints may limit the ability of the local economy to meet the workforce requirements resulting from the Project. Where applicable, these constraints have been identified and explained in this report.

3.2 Review of Broader Socioeconomic Benefits

The project is expected to yield a range of socioeconomic benefits, including an increase in tourism, the creation of new business opportunities, and related trade activities, among others. Beyond the economic impact assessment, a detailed review of the wider socioeconomic benefits expected from the Harbor Project has been conducted.

To assess these socioeconomic impact categories, a comprehensive approach was employed that includes review of publicly available data on sector activity, tourism, and trade for Saba and the Dutch Caribbean, benchmark comparisons, and stakeholder consultations to evaluate the potential impacts across various categories. The specifics of each approach are elaborated upon below.

Document Review

EY conducted an extensive review of publicly available data pertaining to sector activity, tourism, and trade, among other key indicators. This data was sourced from various credible databases and publications, which provided insights into the economic landscape of the region. This included a review of comparable projects across the world that have had a notable impact on their local economies. By analyzing these projects, we were able to draw parallels and understand the potential benefits that similar initiatives could bring to Saba. These case studies were selected based on their relevance to the economic activities and natural endowments of Saba, ensuring that the insights gained were applicable and could inform future strategic decisions. The benefits observed in these projects included improved supply chain, increased trade activity, enhanced tourism, all of which contributed to a more robust and diversified local economy.

Stakeholder Engagement

To supplement the findings in the document review and the jurisdictional scan, EY consulted with key industry stakeholders through a series of targeted consultations. This process was particularly designed in two distinct stages: initial telephone interviews followed by in-person focus groups with targeted stakeholders representing key sectors of economic activity in the island economy.

► Stage One: Telephone Interviews

We initially engaged with key stakeholders through a series of structured telephone consultations. These one-on-one interviews were conducted with key project partners and stakeholders. The telephone interviews allowed us to reach a broad range of participants, facilitating an initial assessment of the project's impact from diverse perspectives. The insights gained during this stage were crucial, providing a preliminary overview of the local challenges and opportunities, as well as the stakeholders' expectations and concerns regarding the project's influence on Saba's socioeconomic landscape.

► Stage Two: In-person Focus Groups with Key Industry Stakeholders

Following the telephone consultations, EY engaged with key industry stakeholders over three 90-minute focus group sessions, which were conducted in person. This provided a platform for more detailed and nuanced discussions. We organized a series of focus groups that promoted an interactive and collaborative dialogue among participants. These groups brought together representatives from the tourism industry, hospitality sector, and governmental organizations.

The rich, qualitative data obtained from these in-person interactions were invaluable, offering a deeper understanding of the real-world implications of the project. Stakeholders' feedback during this stage not only corroborated the previously collected data but also shed light on the intricate effects that the potential projects could have on the social and economic fabric of the community.

Further, EY's key findings from the research and review were validated, contextualized, and prioritized through the stakeholder consultation activity.

4. Economic Impact of the Harbor Project




EY's assessment included the following streams of impacts:

- ▶ **One-time impacts from Project Construction:** The one-time impacts from construction showcase total benefits that are expected to be sustained over the 16-month construction period of the Black Rocks Harbor, and the one-year construction period of the Fort-Bay upgrade.
- ▶ **Sustaining Benefits from Future Operations:** Upon completion of Project construction, majority of workers at Fort Bay are expected to work at the Black Rocks Harbor, with Fort Bay operating as a cargo-only facility. Operations of the new Black Rocks Harbor are expected to begin in January 2027.
- ▶ **Scenario Analysis - Impacts from Increased Tourism Activity:** Based on stakeholder consultations and scenario analysis by EY, is anticipated that once the new Harbor is operational, tourism activity on the island of Saba may be expected to increase, largely driven by higher tourist volumes from the yachting industry. As such, additional economic benefits may be observed from increased tourist spending on the island. It is important to note that this scenario is illustrative in nature and may be materially different from actual observed impacts based on future development of land-slide facilities at Black Rocks, as well as major investments in tourism infrastructure in Saba, among other macroeconomic factors.

4.1 One-time Impacts from Project Construction: Total

The one-time impacts from Project construction are calculated using the total estimated project expenditures provided by PES. The total one-time impacts from construction activities are estimated at **\$17 million** towards Saba's economy (in GDP), **\$2.9 million** in labour income, and **103 FTE** jobs over the combined construction timeframes. A summary of direct, indirect and induced impacts from capital spending is provided below.

Table 5. One-time Impacts from Project Construction: Total

	 GDP (\$ millions)	 Labour Income (\$ millions)	 Jobs (person-year FTEs)
<i>Direct</i>	14.9	2.4	81
<i>Indirect + Induced</i>	2.1	0.57	22
Total	17	2.9	103

Notes: Figures for wages, GDP and output are in millions of US\$. Figures represent cumulative contributions for 2025-2026. Contributions to FTEs from CAPEX are presented in person-years.

Sources: PES data and EY calculations.

One-time Impacts from Project Construction: Black Rocks Harbor




The capital spending associated with the Black Rocks Harbor construction is expected to support one-time economic impacts in terms of GDP, wages, and FTE jobs on the island. The initial capital spending is estimated at nearly **\$52 million**.²

This spending is expected to directly support economic activity, referred to as **direct impacts**. The modelling suggests that from 2025 to 2026, the activities related to the construction of Black Rocks Harbor may directly contribute nearly **\$14 million** towards Saba's economy (in GDP), nearly **\$1.9 million** in wages, and sustain **67 FTE jobs** over the 16-month construction timeframe.

Saba's economy may also benefit from the business activities that support the construction sector, which are referred to as **indirect impacts**. Additionally, **induced impacts** may also be supported due to the additional wages spent by employees and contractors associated with Project construction. The indirect and induced impacts related to the construction of Black Rocks Harbor are estimated at an additional **\$1.9 million** in GDP, **\$505,000** in wages, and **19 FTE jobs** over the 16-month construction timeframe.

The total economic impacts generated by the Black Rocks Harbor construction consist of direct, indirect, and induced impacts. The total impact is estimated at **\$15.7 million** in GDP, **\$2.4 million** in wages, and **86 FTE jobs** in Saba over the 16-month construction timeframe. A summary of direct, indirect and induced impacts from capital spending is provided below.

Table 6. One-time Impacts from Project Construction: Black Rocks Harbor

	 GDP (\$ millions)	 Labour Income (\$ millions)	 Jobs (person-year FTEs)
<i>Direct</i>	13.8	1.9	67
<i>Indirect + Induced</i>	1.9	0.5	19
<i>Total</i>	15.7	2.4	86

Notes: Figures for labour income and GDP are in millions of US\$. Figures represent cumulative contributions for 2025-2026. Contributions to FTEs from CAPEX are presented in person-years.

Sources: PES data and EY calculations.

One-time Impacts from Project Construction: Fort Bay Harbor Upgrade

In addition to the development of the new harbor, planned capital investments are expected to occur to upgrade the current cargo facilities at Fort Bay Harbor. This includes maintenance dredging of the berth, repairs to the main pier, and widening the existing ramp, among others. These capital works are expected to cost **\$2.7 million**.³

The capital spending associated with the Fort Bay Harbor upgrade is expected to support one-time economic impacts in terms of GDP, wages, and FTE jobs through direct, indirect, and induced channels.

It is estimated that over the construction timeframe, the activities related to the Harbor upgrade may directly contribute **\$1.1 million** towards Saba's economy (in GDP), **\$412,000** in wages, and **14 FTE jobs**. Saba's




² Please note that the estimated capital expenditures are provided to EY by PES. Of this total spend, roughly \$15 million is understood to fall into "preparatory works" which will occur outside the local economy (i.e. this will include imports of raw materials and other goods).

³ Please note that the estimated capital expenditures are provided to EY by PES. Of this total spend, roughly \$15 million is understood to fall into "preparatory works" which will occur outside the local economy (i.e. this will include imports of raw materials and other goods).

economy is also expected to benefit from the business activities that support the Fort Bay Harbor upgrade and additional wages spent by employees and contractors. These benefits are collectively referred to as **indirect and induced impacts**. The indirect and induced impacts related to the upgrade are estimated at an additional **\$156,000** in GDP, **\$71,000** in wages, and **3 FTE** jobs over the construction timeframe.

The total economic impacts generated by the Fort Bay Harbor upgrade are estimated as **\$1.3 million** in GDP, **\$483,000** in wages, and **17 FTE** jobs over the construction timeframe. A summary of direct, indirect and induced impacts from capital spending is provided below.

Table 7. One-time Impacts from Project Construction: Fort Bay Harbor Upgrade

			
	GDP (\$ millions)	Labour Income (\$ thousands)	Jobs (person-year FTEs)
<i>Direct</i>	1.1	412	14
<i>Indirect + Induced</i>	0.2	71	3
Total	1.3	483	17

Notes: Figures for GDP are in millions of US\$. Figures for labour income are in thousands of US\$. Figures represent cumulative contributions for 2025-2026). Contributions to FTEs from CAPEX are presented in person-years.

Sources: PES data and EY calculations.




4.2 Sustaining Benefits from Future Operations

Average annual contributions from projected operational spending are estimated from January 2027, after the completion of Black Rocks Harbor construction.

On an annual basis, the operations of the new Black Rocks Harbor are estimated to add **\$379,000** towards Saba's GDP, **\$189,000** in labour income and sustain roughly **6 FTEs**. When indirect and induced impacts are considered, this impact is estimated to be larger, at **\$401,000** in GDP, **\$196,000** in labour income, and **7 FTEs**.

A summary of direct, indirect and induced impacts from operational spending is provided below.

Table 8. Future Operations

			
	GDP (\$)	Labour Income (\$)	Jobs (FTEs)
<i>Direct</i>	379,000	189,000	6
<i>Indirect + Induced</i>	22,000	7,000	1
Total	401,000	196,000	7

Notes: Figures for GDP and labour income are in US\$. Figures represent annual average contributions starting in January 2027.

Sources: PES data and EY calculations.

Additional Economic Benefits from Temporary Workers

In 2022, Saba had a labor force of 1,040, with around 30 unemployed persons.^{xiii} Given the large scale of the Project and planned activities over a short timeframe, workforce requirements in the construction phase may exceed the number of qualified and available workers in Saba. As such, temporary workers may need to be sourced from neighbouring economies to support project activities. The top places of birth among non-local employees in Saba are St. Maarten, Dominican Republic, Colombia, and the European Netherlands.^{xiv} Through increased demand for workers, these regions may also experience ripple effects of the Project's construction activities. Potential benefits of attracting non-local workers include:

- ▶ **Local Spending:** Temporary workers can generate additional benefits by contributing to Project activities, as well as by participating in the local economy (i.e., through spending on accommodation, food services, other retail, and recreation activities).
- ▶ **Benefits to Neighboring Economies:** By providing employment to workers beyond the island of Saba, the economic impacts of the Project may extend to other jurisdictions.

4.3 Scenario Analysis: Impacts from Increased Tourism Activity

In absence of detailed tourism sector data from PES, EY has developed an illustrative scenario of the potential benefits of increased tourism activity from the yachting industry. Please note that this scenario is illustrative in nature and may be materially different from actual observed impacts based on future development of land-slide facilities at Black Rocks, as well as major investments in tourism infrastructure in Saba, among other macroeconomic factors.

Based on consultations with stakeholders across different sectors in Saba, the Black Rocks Harbor may enable Saba to tap into the vibrant yachting industry that plays a key role in sustaining tourism activity in the Caribbean. As Saba does not currently have the infrastructure to support this type of activity in large scale, additional economic benefits may be observed from increased tourist spending through the yachting industry. Data for the yachting industry was obtained from the Central Bureau of Statistics for Bonaire.⁴

The following statistics were leveraged from Saba's 2023-2028 Strategic Tourism Master Plan and the Central Bureau of Statistics:

Table 9. Tourism Indicators

Indicator	Value
Spending Per Person Per Trip (Saba)	\$1,167
Spending Per Person Per Day (Saba)	\$162
Yacht Passengers, 2021 (Bonaire)	1,200
Number of Yachts, 2021 (Bonaire)	400
Average Number of Mooring Days (Bonaire)	15.2




Source: 2023-2028 Strategic Tourism Master Plan; Central Bureau of Statistics

With an upgraded harbor facility, the yachting industry may be supported in two ways. Firstly, the number of visitors by yacht may increase, and secondly, the average number of mooring days may rise. In the absence of detailed yachting sector data from PES, proxy information from Bonaire was referenced. Please note that actual passenger volumes from the yachting sector may materially differ based on the number of slips available, among other factors.

Based on the above information, the total tourism spending estimated at **\$2.9 million** annually. Below is an overview of the potential economic impacts that may be supported as a result of this activity.

⁴ While nearby St. Maarten has a vibrant yachting sector, Bonaire was selected due to lack of available data for other islands in the Caribbean Netherlands.

Table 10. Illustrative Impacts from Yachting Tourism

	 GDP (\$ '000s)	 Labour Income (\$ '000s)	 Jobs (FTEs)
<i>Direct</i>	1,991	592	22
<i>Indirect + Induced</i>	995	89	4
<i>Total</i>	2,986	681	26

Notes: Figures for labour income and GDP are in thousands of US\$. Figures represent annual average contributions starting in January 2027.

Sources: PES data and EY calculations.

On an annual basis, increased yachting activity may directly contribute up to **\$2 million** towards Saba's GDP, **\$592,000** in labour income and sustain roughly **22 FTEs**. When indirect and induced impacts are considered, this impact is estimated to be larger, up to **\$3 million** in GDP, **\$681,000** in labour income and sustain roughly **26 FTEs**.

Based primarily on benchmarked data, the above scenario should be considered illustrative in nature. A more detailed assessment of the regional un-tapped yachting sector, final number of slips at the proposed harbor facility, up-to date tourism statistics from PES, as well as future plans for tourism infrastructure development would be required to provide more detailed estimates. Any impacts to increased tourism through air and ferry are not considered in the above assessment due to data limitations.

5. Broader Socioeconomic Benefits

In addition to the economic impact assessment, the potential broader socioeconomic benefits were assessed through a review of industry research and stakeholder consultations. Potential socioeconomic impacts of the Project include:

- ▶ **Improved supply chains and increased trade activities:** By separating port activities between Fort Bay and Black Rocks, the Project is expected to support increased cargo capacity. This may in turn facilitate increased trade activities and strengthen local supply chains.
- ▶ **Improved visitor experience and supports to the tourism sector:** The Project is expected to attract a higher volume of tourists by reducing average passenger loading and offloading times, providing dedicated facilities for tourists, improving port security and border control, as well as providing requisite facilities to support the yachting sector.
- ▶ **Follow-on investment:** The new harbor development in Saba is expected to enhance the local real estate market. The construction of additional roads and utility services may have the potential to attract follow on investment in key sectors such as tourism. This, in turn, is likely to lead to more property sales, stimulating economic growth across residential and commercial real estate sectors.
- ▶ **Support for the construction industry:** The Project in Saba is expected to generate more stable work patterns in the construction sector over the course of the construction phase. Additionally, potential follow-on investment may support a more consistent flow of projects and long-term growth in the construction industry.
- ▶ **Other business opportunities:** The development of Black Rocks Harbor may have the potential to enhance the services sector that supports the broader tourism industry. With greater visitor volumes expected, demand for cultural experiences may also rise, thereby supporting local artisans and businesspeople. Additionally, potential impacts may be seen for supporting industries like fishing, quarrying, and other activities that can support the regional economy.
- ▶ **Environmental considerations:** Given the existing risks of weather-related vulnerabilities at Fort Bay Harbor, a suitable location has been chosen for Black Rocks due to its resiliency to environmental hazards, hurricane resistance, as well as future expansion as required. However, the construction of a new harbor and an increase in trade and harbor activity can have the potential to negatively impact the environment. Appropriate mitigation plans are in consideration by PES to ensure environmental protection.

5.1 Improved Supply Chains and Increased Trade Activities

Planned upgrades to Fort Bay Harbor are expected to impact Saba's supply chain and trade activities by increasing cargo capacity on the island, facilitating the movement of goods, and potentially reducing freight costs and food wastage. Further, the separation of port activities between the two locations is expected to generate efficiencies and support seamless service delivery.

Status Quo

Saba currently relies on imports from the US for most of its consumption goods.^{xv} At present, two vessels arrive at Fort Bay every week following a set route, which includes:

- ▶ Cargo ships departing from Miami and arriving at St. Maarten to partially or completely offload the ship's cargo.
- ▶ The ship then arrives at Saba and offloads the remaining cargo. In many cases, when the larger ships completely offload cargo at St. Maarten, goods are stored at local warehouses, which are later shipped to Saba on smaller vessels.

Currently, Fort Bay Harbor has the capacity to process an average of seven containers per week, but actual processing currently stands at four containers per week due to inefficiencies and limitations to capacity. Stakeholder consultations have indicated various challenges in the current port infrastructure that are in turn impacting local business operations. These challenges include limited cargo boat availability, the absence of cooling facilities or cold storage for perishable goods, inadequate facilities for accommodating larger vessels and tourists, among others. Such concerns are important for the local business community, affecting their profitability, access to key inputs, and ability to sustain uninterrupted operations. Additionally, there is a marked need for improved safety measures and better accessibility for embarking and disembarking at the port. Below is an overview of some of the key aspects related to the current cargo capacity in Saba:

- ▶ **Lack of Cooling Infrastructure:** The container handling process typically takes between three to four hours. However, upon arrival at Fort Bay Harbor, containers are immediately unpacked since there are no cooling plug-ins available. As most ships arrive during the day, this process takes place in warm to hot conditions, resulting in defrosted frozen food. This practice is understood to result in considerable wastage and impact to food quality. This in turn affects local residents, businesses and tourists alike, as they are unable to obtain high quality of food and ingredients for consumption.
- ▶ **Limited Capacity:** The current harbor lacks space to store empty shipping containers, resulting in cargo ships being forced to idle while the containers are unpacked. The longer the ships remain idle, the higher operational costs they incur, including fuel, maintenance, and crew expenses. These inefficiencies contribute to higher freight costs, which in turn translate into higher costs of goods for Sabans.

Based on consultations with key stakeholders, it is noted that the existing port infrastructure at Fort Bay Harbor is inadequate for optimal business operations due to the constraints highlighted above. The current limitations, such as the lack of cooling facilities, insufficient capacity for larger vessels and tourists, and the need for enhanced safety and accessibility measures, are significant barriers to operational efficiency and competitiveness. Addressing these challenges through the proposed project, which includes the upgrade of the existing port and the construction of new harbors, is expected to resolve these issues and support trade activity as well as local supply chains.

Project Impacts

The current harbor faces challenges in effectively managing passenger and cargo operations at a single facility. Following Project construction is expected that Fort Bay Harbor will be dedicated to cargo operations, while the new Black Rocks Harbor will serve all other vessels and include a specific docking point for ferry passengers.

This separation, along with the proposed renovation and upgrades at Fort Bay Harbor, is expected to enhance cargo capacity, improve operational performance, and enhance navigational safety. These improvements are further described below.

Table 11: Summary of Potential Impacts

Impacts	Description
Trade	<ul style="list-style-type: none"> ▶ Direct access to markets without sole reliance on a limited number of trading partners ▶ Lower transportation costs promoted by shorter turnaround times and the direct delivery of goods by large vessels to Saba ▶ Greater trade potential facilitated by a dedicated cargo harbor ▶ Improved quality and variety of goods, benefiting residents and visitors, as well as local businesses

Impacts	Description
Supply chain	<ul style="list-style-type: none"> ▶ Enhanced resilience of local supply chains ▶ Reduced cost of living resulting from access to a wider range of goods and resources at potentially lower prices and better quality ▶ Reduced food waste through the installation of cooling plug-ins

Trade Benefits

As a result of the Project, the cargo capacity at Fort Bay Harbor is expected to increase. The increased cargo capacity may in turn facilitate trade activities in Saba. Key trade opportunities presented by the Project include:

- ▶ Direct access to markets: As the current harbor can only facilitate cargo vessels of a limited size, the majority of trade activity occurs through vessels from St. Maarten. The redeveloped facility is expected to have more capacity and ability to handle larger vessels, potentially attracting cargo vessels from other destinations.
- ▶ Lower transportation costs: The Project will provide additional space to store empty shipping containers, which can reduce idling time and costs for vessels. In addition, increased access to vessels from other destinations may increase trade competition. Such factors may result in an overall reduction in costs of goods.
- ▶ Greater import potential: A dedicated cargo port exclusively for shipping and trade purposes is expected to increase Saba's trade capacity, and potentially lower costs for consumer goods and key inputs for construction related activities. This is a strategic impact for the island, as several planned major infrastructure projects are expected to increase demand for raw materials.
- ▶ Improved variety & quality of goods: With more efficient cargo handling and improved facilities at the harbor, a marked improvement is expected in quality and variety of goods available to the local market. Stakeholders have highlighted that the lack of cooling plug-ins affect the overall quality of goods available to residents and visitors through retailers. The upgraded facility is expected to have cooling plug-ins, thereby improving the handling of inbound product and improving the quality of goods available for sale.

Supply Chain Benefits

The Project has the potential to strengthen local supply chains, thereby contributing to economic growth and wellbeing of residents. Key supply chain opportunities include:

- ▶ Enhanced resilience: Strategically, a second harbor can enable Saba to remain connected to other regions in the event of any damage at Fort Bay. Access to this infrastructure can facilitate contingency planning and enable continuity of trade and transportation activities in the event of any loss of service at Fort Bay. This can contribute to more resilient supply chains in the island economy.
- ▶ Reduced costs of living: Over the last decade, purchasing power in Caribbean Netherlands has experienced notable fluctuations. In Saba, a decline in purchasing power was experienced in 2018, hinting at the vulnerability of the local economy to external shocks. With improved access to imports through better port infrastructure, a wider range of goods may be available to residents at more competitive prices. This may have the potential to reduce costs of living and improve quality of life. Project stakeholders have also highlighted the potential of reduced cost of construction materials, making future projects more cost effective.
- ▶ Reduced food waste: The installation of cooling plug-ins would allow for containers to be cooled immediately upon offloading, and processing could be undertaken outside of extreme heat conditions. As

a result, notable improvements are expected in the quality of imported food, as well a reduction in food wastage.

These factors can have long term impacts by strengthening supply chains and reducing pressures on costs of living.

5.2 Improved Visitor Experience and Support to the Tourism Sector

The development of the new Black Rocks Harbor, as the part of the project, may directly support the tourism industry by improving the visitor experience, including reduced wait times upon arrival, and improved infrastructure.

Status Quo

Saba's natural beauty, unique culture, and outdoor activities have made tourism a crucial sector of the economy, contributing around 25% to its GDP of \$44 million in 2020. Between May 2021 and May 2022, Saba received 9,612 international arrivals, of which 8,468 were tourists and 1,148 were day trippers.^{xvi}

The motivations behind tourists visiting Saba are diverse, encompassing various activities. These include diving (20%), hiking (19%), visiting friends and family (18%), engaging in business activities (18%), medical students (5%), and other reasons (25%).

However, stakeholders have identified a lack of appropriate infrastructure in the current Fort Bay Harbor to support the current and planned increase in tourism volumes in the next five years. Upon arrival at Fort Bay, ferry passengers are required to proceed through Customs and Immigration, where currently, loading and offloading an average of 150 passengers from a vessel can take up to two hours. In addition, all cargo services are also handled at Fort Bay, which can lead to bottlenecks and delays for tourists. Long wait times can be a negative contributor to visitor experience, and access to modernized port infrastructure has been recognized as a viable solution to service the increased tourist volumes planned for Saba.^{xvii}

Further, in comparison to neighboring islands such as St. Maarten, St. Kitts & Nevis, and St. Barth's, Saba's competitive position is not as strong. Saba is ranked by tourists as the least preferred island among destinations in the Caribbean, with infrastructure being highlighted as one of the key factors that contribute to this sentiment. Improving visitor experience in Saba has been marked as a key ingredient for the growth and sustainability of the tourism industry. The new harbor is expected to support this goal.

Project Impacts

The Project is expected to support greater tourist volumes by reducing average passenger loading and offloading times, providing dedicated facilities to tourists, improving port security and border control, and providing the necessary infrastructure to support growth in the tourism sector in Saba. Further details about these improvements are described on the following page.

Table 12: Summary of Impacts

Impacts	Description
Visitor Experience	<ul style="list-style-type: none"> ▶ Lower passenger processing times are expected through an improvement in the time required to load and/or offload 150 ferry passengers, reducing it from the current two hours to 30 minutes

Impacts	Description
	<ul style="list-style-type: none"> ▶ Enhanced customer services through dedicated facilities may contribute to a more comfortable and enjoyable experience for tourists ▶ Improved security and border control measures ▶ Improved safety for docking and disembarking for passengers
Tourism Sector	<ul style="list-style-type: none"> ▶ Safer conditions may contribute to mitigating risks and support Saba in remaining connected to the outside world ▶ Promoted yachting industry may contribute to the development of Saba's tourism sector and may generate further follow on benefits ▶ Greater activity for diving businesses through enhanced port capacity ▶ New business opportunities and enhanced operations of existing businesses in the tourism sector may be supported through the new harbor

Enhanced Visitor Experience

Based on a survey conducted among tourists from the United States and the Netherlands, Saba was ranked low in comparison to other Caribbean destinations in terms of various attributes, such as infrastructure, accessibility, safety, price, and quality.^{xviii} By improving visitor experience and providing up to date infrastructure, the Project may benefit Saba's tourism sector.

Below is an overview of expected benefits:

- ▶ **Reduced waiting times:** The dedicated docking point at the new Black Rocks Harbor is expected to reduce average passenger loading and offloading times from around two hours to approximately 30 minutes for a vessel carrying 150 passengers. This notable decrease in wait times can allow for more seamless operations and is expected to result in an overall positive visitor experience.
- ▶ **Enhanced customer services:** Depending on the design of the Black Rocks Harbor, the implementation of dedicated value-add facilities such as covered waiting areas equipped with seating and shade, may contribute to a more comfortable and enjoyable experience for tourists after disembarking. Such amenities can have the potential to improve Saba's competitive positioning among Caribbean destinations.
- ▶ **Improved border control:** By introducing up-to-date border facilities, including screening and surveillance systems, a more formalized process may be established for Customs and Immigration. Streamlined border control measures may promote a more formalized environment for visitors and instill a sense of confidence, thereby enhancing the overall visitor experience and encouraging repeat visits.
- ▶ **Improved safety for docking:** Based on stakeholder consultations, it is noted that the current harbor does not provide protection for docking and embarking/disembarking for passengers. With more protection and appropriate facilities for embarking and disembarking at the new harbor, such risks are expected to be lower, thereby improving traveler experience and for passengers going on excursions such as diving, etc.

In summary, the range of benefits from improved infrastructure may contribute to improved efficiency, better border control measures, and enhanced safety and customer service.

Support for the Tourism Sector

With the development of the Project, Saba's capacity for tourism could be enhanced. This could be achieved by providing safer conditions and a larger facility to accommodate the established yachting industry.

- ▶ Safer conditions: The current harbor, which is over 50 years old, has undergone multiple repairs over the years. For instance, in September 2017, Hurricane Maria caused severe damage to Fort Bay Harbor, rendering a large part of it inoperative. As discussed previously, the upgrades to Fort Bay Harbor and the construction of Black Rocks Harbor may contribute to mitigating these risks and support Saba in remaining connected to the outside world, thereby supporting the tourism sector.
- ▶ Development of the yachting industry:
 - Several Caribbean destinations have highlighted a yachting tourism industry as an integral part of their tourism sector, while others have focused on cruise tourism. With the new harbor development Saba can benefit from developing the yachting industry and attract more visitors to the island. A scenario analysis in Section 4 of this report highlights the potential incremental benefits of developing the yachting industry in Saba.
 - To promote yachting tourism, it is essential to offer adequate facilities and infrastructure, as noted in Saba's Tourism Master Plan. The new harbor development and its associated amenities are an integral input to supporting the yachting industry.
- ▶ Greater activity for diving businesses: The diving industry is an integral part of Caribbean tourism, and supports local businesses, generates revenue, and attracts tourist activity. By increasing port capacity and attracting more tourists to the island, the new Harbor may support such local businesses, increasing their capacity to efficiently operate at the harbor, and service increasing tourist demand for their services.
- ▶ Other activities in the tourism sector: The increase in visitation may support higher demand for other entertainment services such as other water sports, guided tours, rock climbing, and a range of other recreational activities. This may further support the development and growth of the local tourism industry.
- ▶ Spillover benefits: With better prospects for the tourism industry, spillover benefits may be realised through follow-on investments in new marinas, repair shops, and provisioning facilities, among others. Additionally, a recreational experience can be offered through a wide range of amenities such as bars, showers, and toilets, similar to those offered by hotels and resorts. The development of the yachting tourism industry, especially on small islands, may potentially have a positive impact on the overall tourism sector and, consequently, on the local economy. It may stimulate economic growth, create jobs, attract businesses and tourists, and support growth in business activity.

5.3 Follow-on Investment

The Harbor Project, alongside new road and utility upgrades is expected to strengthen Saba's static real estate market. With increased access to other markets and regions, this development may have the potential to attract foreign investment and lead to an increase in property sales.

Status Quo

Based on consultations with stakeholders, it is observed that the real estate market in Saba is currently stagnant, with limited activity and growth. Property sales are rare, catering mainly to a small number of expatriates and locals who build incrementally as funds allow. The construction sector is largely sustained by public sector investments. Despite the island's attractive features, such as sport fishing, the lack of a safe harbor for boats has hindered significant external investment in real estate, entertainment, and hospitality.

Project Impacts

The harbor expansion and improved accessibility are expected to improve the real estate sector, leading to increased property sales and potential developments on the island. The project is anticipated to draw foreign

investors, particularly those with interests in boating and fishing, who may seek a safe harbor for their vessels and desire nearby residential properties. Aside from investments in residential real estate, the development of the harbor may open up this location to largest investors in commercial real estate, specializing in entertainment and hospitality in particular. Such inflows of investment may support a more vibrant real estate market, with potential growth in both residential and commercial real estate. However, there is a need to balance this growth with the interests of local residents to prevent displacement and ensure that the benefits of development are equitably shared.

5.4 Support for the Construction Industry

The Harbor Project is projected to bring much-needed stability in activity of in the construction sector, which has historically dealt with inconsistent work patterns, varying between busy periods and downtime, as highlighted in the stakeholder consultations. Through Project construction, potential follow on investments (in addition to existing planned investments on the island), the construction industry may experience a period of high growth.

Status Quo

Historically, Saba's construction sector has been cyclical in nature, with contractors experiencing unpredictable periods of high demand for new builds or renovations, followed by stretches of inactivity. This erratic pattern has been a challenge for the industry, leading to uncertainty in employment and business planning. Recently, however, there has been a modest stabilization due to federal and pension fund investments in key infrastructure projects, such as a healthcare facility and a hotel, which have provided a more reliable source of work. Despite this, the overall sector remains one of periodic activity, with construction workers eager for a more consistent and long-term projects.

Project Impacts

The Harbor Project is expected to bring stability for Saba's construction industry, mitigating the current 'peaks and valleys' in work availability and laying the groundwork for sustained period of consistent growth. Stakeholders are optimistic that this development will mark a notable shift, drawing in external investors attracted by Saba's allure as a premier tourist destination. Looking ahead, the Harbor Project may be expected to generate a pipeline of construction work that could support the local economy.

5.5 Other Business Opportunities

In addition to the impacts highlighted above, the Harbor Project may indirectly support activities across a range of industries over the medium- to long-term:

- ▶ Support activities in tourism: The enhancement of the port facilities is expected to have a positive ripple effect on various sectors beyond the traditional scope of tourism. The project is expected to boost the service industry, particularly in areas such as cultural and heritage tourism, which includes art galleries, museums, and historical sites. Saba's current port infrastructure limits the potential for cultural and recreational tourism, with constrained facilities impacting the arrival and experience of visitors interested in the island's heritage and leisure activities. As the Black Rocks Harbor is expected to support smoother and more efficient tourist arrivals, it is likely to lead to an increase in visitors seeking cultural enrichment, thereby supporting local artisans, curators, and historians. Moreover, the recreational industry stands to benefit from the arrival of tourists, as they engage in leisure activities, visit souvenir shops, and explore local attractions. The improved port infrastructure will not only make Saba more accessible but also more appealing to a diverse range of visitors, including those interested in experiential and educational travel.

This, in turn, could lead to a boost in the local economy as tourists spend on unique experiences, gifts, and memorabilia that reflect the island's heritage and charm.

- ▶ Local fishing industry: The harbor is expected to provide greater capacity for local fishermen to increase their scale of operations, to serve the local market and the potential increase in tourism volumes.
- ▶ Ancillary services: As more vessel traffic is expected on the island, support services such as boat maintenance and repair services may see an increased demand from inbound vessels. This may create opportunities for local businesses to expand their operations, or for new businesses to enter the market. Additionally, other services for inbound vessels and visitors may see an uptick in demand, providing new business opportunities in industries such as quarrying, which may have notable export potential.

5.3 Environmental Considerations

Mitigation plans are being implemented to limit the potential environmental footprint of the development. The new harbor is also expected to have greater resiliency to environmental hazards.

Status Quo

Saba's tourism industry and the broader economy are strongly influenced by environmental factors such as the tropical climate, varied flora and fauna, and the distinct geography of the island, which provide the basis for ecotourism and adventure tourism activities. Like any form of infrastructure development, the Project may potentially have negative impacts on the environment.

To address concerns regarding the construction of the Black Rocks Harbor, environmental impact studies have been conducted. These studies assess natural values and impacts (such as noise, anchoring, sedimentation, and erosion) resulting from harbor renovation and operations.

Project Impacts

- ▶ Greenfield Development: The construction of the new harbor may have a negative impact on both land and aquatic ecosystems, as found in the Gaafaru Island harbor development and the Freeport Harbor Expansion in the Bahamas.^{xixxx} Specifically, the proposed Black Rocks site, which is approximately 1.2 km east of Fort Bay, is a natural grass and shrubland area with trees scattered throughout and is only accessible via a dirt road. As a "greenfield development", the area is without any commercial, residential, or other structures. This gives rise to the necessity for appropriate mitigation plans, which have been addressed by PES.
- ▶ Greater Environmental Resilience: Furthermore, the environmental resiliency of the new harbor may contribute to low upkeep costs in the future. Black Rocks was identified as the most suitable location for a harbor due to its relatively flat terrain, shallow waters, hurricane resistance, and opportunities for boosting economic growth.

During both the construction and operations of the Project, minimizing potential environmental impacts is essential to safeguarding the environment. In addition to health and safety considerations relating to the environment, Saba's tourism industry and wider economy heavily depend on its natural assets.




6. Conclusion

The Saba Harbor Project is expected to generate sizable economic and socioeconomic benefits for the local economy, supporting activities in the construction phase, as well as the future operations of the harbor facilities. Additionally, benefits of the project are expected to extend into the long-term, supporting socioeconomic benefits in the local economy through its ripple effects and supports to other industries in Saba.

Economic Impacts of the Harbor Project

The one-time impacts from Project construction are calculated using the total estimated project expenditures provided by PES. The total one-time impacts from construction activities are estimated at **\$17 million** towards Saba's economy (in GDP), **\$2.9 million** in labour income, and **103 FTE** jobs over the combined construction timeframes. A summary of direct, indirect and induced impacts from capital spending is provided below.




Table 13. One-time Impacts from Project Construction: Total

	 GDP (\$ millions)	 Labour Income (\$ millions)	 Jobs (person-year FTEs)
<i>Direct</i>	14.9	2.4	81
<i>Indirect + Induced</i>	2.1	0.57	22
<i>Total</i>	17	2.9	103
Notes:	Figures for GDP and labour income are in millions of US\$. Figures represent cumulative contributions for 2025-2026). Contributions to FTEs from CAPEX are presented in person-years.		
Sources:	PES data and EY calculations.		

Average annual contributions from projected operational spending are estimated from January 2027, after the completion of Black Rocks Harbor construction.

On an annual basis, the operations of the new Black Rocks Harbor are estimated to add **\$379,000** towards Saba's GDP, **\$189,000** in labour income and sustain roughly **6 FTEs**. When indirect and induced impacts are considered, this impact is estimated to be larger, at **\$401,000** in GDP, **\$196,000** in labour income, and **7 FTEs**. A summary of direct, indirect and induced impacts from operational spending is provided below.

Table 14. Future Operations

	 GDP (\$)	 Labour Income (\$)	 Jobs (FTEs)
<i>Direct</i>	379,000	189,000	6
<i>Indirect + Induced</i>	22,000	7,000	1
<i>Total</i>	401,000	196,000	7

Notes: Figures for GDP and labour income are in US\$. Figures represent annual average contributions starting in January 2027.

Sources: PES data and EY calculations.

Broader Socioeconomic Benefits

In addition to the economic impact assessment, the breadth of broader socioeconomic benefits were assessed through a review of industry research and stakeholder consultations. Potential socioeconomic impacts of the Project include:

- ▶ **Improved supply chains and increased trade activities:** By separating port activities between Fort Bay and Black Rocks, the Project is expected to support increased cargo capacity. This may in turn facilitate increased trade activities and strengthen local supply chains.
- ▶ **Improved visitor experience and supports to the tourism sector:** The Project is expected to attract a higher volume of tourists by reducing average passenger loading and offloading times, providing dedicated facilities for tourists, improving port security and border control, as well as providing requisite facilities to support the yachting sector.
- ▶ **Follow-on investment:** The new harbor development in Saba is expected to enhance the local real estate market. The construction of additional roads and utility services may have the potential to attract follow on investment in key sectors such as tourism. This, in turn, is likely to lead to more property sales, stimulating economic growth across residential and commercial real estate sectors.
- ▶ **Support for the construction industry:** The Project in Saba is expected to generate more stable work patterns in the construction sector over the course of the construction phase. Additionally, potential follow-on investment may support a more consistent flow of projects and long-term growth in the construction industry.
- ▶ **Other business opportunities:** The development of Black Rocks Harbor may have the potential to enhance the services sector that supports the broader tourism industry. With greater visitor volumes expected, demand for cultural experiences may also rise, thereby supporting local artisans and businesspeople. Additionally, potential impacts may be seen for supporting industries like fishing, quarrying, and other activities that can support the regional economy.
- ▶ **Environmental considerations:** Given the existing risks of weather related vulnerabilities at Fort Bay Harbor, a suitable location has been chosen for Black Rocks due to its resiliency to environmental hazards, hurricane resistance, as well as future expansion as required. However, the construction of a new harbor and an increase in trade and harbor activity can have the potential to negatively impact the environment. Appropriate mitigation plans are in consideration by PES to ensure environmental protection.

Appendix A: The Input-Output Model – Assumptions and Restrictions

An I-O model is subject to limitations both in concept and implementation. Like any economic model, the I-O model is conceptually an abstraction that attempts to be complex enough to accurately capture and estimate the most significant impacts to the real-life economy caused by an economic activity, yet simple enough to be analytically and intuitively meaningful. Generally speaking, an I-O model reflects the observed interdependency between all the sectors of the economy.

As Saba is a small island economy, certain industries, such as tourism and public administration, comprise a large share of business activity. Therefore, custom regional multipliers were developed for the local economy:

- (1) Using local labor market and industry output information, along with a benchmarking analysis to validate findings against industry interlinkages in comparable economies in the surrounding region. Local economic and demographic data for Saba were sourced from Statistics Netherlands and PES.
- (2) The custom multipliers reflect the extent of impacts expected to occur within the local economy and depict the interdependence among all industry sectors and how spending flows through supply chains. Each multiplier represents a numerical value that describes the size of the indirect and induced economic impacts for a given level of spending.
- (3) In certain cases, capacity constraints may limit the ability of the local economy to meet the workforce requirements resulting from the Project. Where applicable, these constraints have been identified and explained in this report.

While an I-O model provides a consistent and intuitive way of measuring the economic effects of business activity, users should be aware of the assumptions and limitations of the I-O model's underlying approach, and in turn regarded its results merely as approximations.

Key assumptions include:

- ▶ The relationship between industry inputs and outputs is linear and fixed, meaning that a change in demand for the outputs of any industry will result in a proportional change in production. The model cannot account for economies/diseconomies of scale or structural changes in production technologies, an assumption which does not necessarily hold in the actual economy;
- ▶ Prices are fixed in the model;
- ▶ I-O models are static and does not consider the amount of time required for changes to happen. As such, in the context of this study the model implicitly assumes that all the ripple effects in the economy take place within one year. Changing the timeframe would not affect the magnitude of the effects estimated;
- ▶ There are no capacity constraints, and all industries are operating at capacity. This implies that an increase in output results in an increase in demand for labour (rather than simply re-deploying existing labour). It also implies that there is no displacement that may occur in existing industries as new projects are completed;
- ▶ I-O models assume that the technology and resource mix (ratios for inputs and production) is the same for all firms within each industry. As such, our analysis describes industry average effects; and
- ▶ The model assumes that the structure of the economy remains unchanged.

As per the assumptions above, the structure and limitations of I-O models lend themselves to measuring the impacts of projects that are shorter term in nature; generally, they are used to look at shocks to the economy. For longer-term, time series analysis and general equilibrium models are likely to be more appropriate. Lastly, EY has relied upon the completeness, accuracy and fair presentation of all information, data, advice, opinions, or representations obtained from public sources. The findings of this report are conditional upon such completeness, accuracy and fair presentation of the Information as EY has not independently verified or audited the Information provided to us.

Appendix B: Definitions

Term	Definition
Average Annual Growth Rate	The average annual growth rate is the percentage increase of a value (such as inflation, employment, or any other indicator) over the course of one year.
Gross Domestic Product	GDP, or local value added, is a measure of the value of all final goods and services produced in a specific region (i.e., the Island of Saba).
Year over Year	Financial comparison for assessing financial metrics by comparing one period to the same period of the previous year.
Person-Year	The term "person year" in the context of FTE employment refers to the amount of work done by one person in a full-time capacity over the course of a year. For example, if a project requires 2 person years of effort, it means that the project would require two full-time employees working for an entire year, or equivalently, four employees working half-time for a year, to complete the work.
Unemployment Rate	The unemployment rate is defined as the percentage of the total labor force that is unemployed but actively seeking employment and willing to work. It is a key indicator of the economic health of a country, providing insights into the level of joblessness within its working population.

Appendix C: References

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 - ^v University of Central Florida, "Saba Dutch Caribbean: Strategic Tourism Master Plan"
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 - ^{ix} Saba News, "Old Power Plant at Fort Bay to be converted to Marine Research Station" <https://saba-news.com/old-power-plant-at-fort-bay-to-be-converted-to-marine-research-station/>
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 - ^{xvi} University of Central Florida, "Saba Dutch Caribbean: Strategic Tourism Master Plan"
 - ^{xvii} University of Central Florida, "Saba Dutch Caribbean: Strategic Tourism Master Plan"
 - ^{xviii} University of Central Florida, "Saba Dutch Caribbean: Strategic Tourism Master Plan"
 - ^{xix} Maldives Ministry of Environment and Energy
 - ^{xx} The Grand Bahama Port Authority