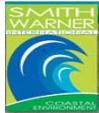


ENVIRONMENTAL IMPACT ASSESSMENT
CRUISE BERTHING TERMINAL
FOR CAYMAN ISLANDS:
APPENDIX 1: STAKEHOLDER ENGAGEMENT & PUBLIC CONSULTATION



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1 Scope

The proposed project has the potential to affect multiple groups and communities across all levels of the society. Principle Five of the Equator Principles requires ongoing stakeholder engagement as an integral component of a project of this nature and scope (EPFI, 2013). It stipulates that stakeholder engagement should commence early in the project planning phase before construction and continue on an ongoing basis. Principle six requires the setting up of a grievance mechanism to “receive and facilitate resolution of concerns and grievances about the project’s environmental and social impacts.”

The International Finance Corporation (IFC) requires a process of “Informed Consultation and Participation (ICP)” in accordance with IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts. This is especially critical for projects with the potential for significant adverse impacts on communities.

In addition to being a requirement, stakeholder engagement and public participation is known to enable better environmental decision-making. It builds understanding of the values of affected parties (cultural, spiritual, equity, etc.), and legitimacy and trust, and minimizes costs and delays associated with conflicts (IFC, 2007; National Research Council, 2005; Wasserman, 2012).

The method of stakeholder engagement used for this project was tailored to the potential risks associated with the Cruise Berthing Terminal project and the types of stakeholders involved. The remainder of this document will:

- Provide a summary of previous stakeholder engagement activities;
- Identify, analyze and prioritize key potential stakeholder groups;
- Identify the level of engagement and provide a strategy and timetable for disclosing information to and consulting with each of the identified stakeholder groups during the EIA, construction and operational phases of the project;
- Outline a grievance mechanism that would be used for receiving, recording and addressing complaints during construction and operation; and
- Describe resources and responsibilities for implementing stakeholder engagement activities.

2 Methodology

2.1 Stakeholder Identification and Analysis

The IFC defines stakeholders as:

“Persons who are directly or indirectly affected by a project, those who have interests in a project and/or the ability to influence its outcome, either positively or negatively” (IFC, 2007). Stakeholders can be individuals, groups, communities or their formal and/or informal representatives and the level of interest and potential to be affected varies among stakeholders.

Identification of stakeholders was based on information and reports and other documentation from, or about stakeholder engagement during the planning phase of the project. Documents reviewed included the EIA TOR and appendices, the Strategic Outline Business Case (OBC) Report commissioned by the (Cruise Terminal Development Steering Committee, 2013) among others. It is anticipated that additional stakeholders will be identified during the engagement.

Summary reports of the previous stakeholder consultations indicated that the identified stakeholders can be further categorized by their general interest in the project:

- The general public is largely affected from the perspective of the impact on their communities and environment (noise, air/water pollution, loss of habitat, landscape & visual, social, cultural).
- Environmental non-governmental organizations and cultural heritage organizations are also concerned with environmental impact from the perspective of preservation and minimizing impacts on natural resources and natural and cultural heritage assets.
- Private sector entities are largely concerned with impacts on their livelihoods and finances (gains and losses) which are largely dependent on the natural environment.
- The CIG stakeholders are concerned with planning and design with consideration for regulations, due diligence and implementation of proposed project and related developments required for success.
- Lastly, the visitors are concerned with their experience while visiting the island.

The level of influence and level of interest/significance of economic, environmental and social impacts is regarded as an indicator of the type of engagement appropriate for that stakeholder group. The main engagement types are to inform, consult, involve, collaborate, and empower (Figure 2.1). The nature, scope and location of this project calls for engagement at the high end of both the interest and influence spectrum. Stakeholders grouped by their interest and the type of consultation are shown in Table 2.1.

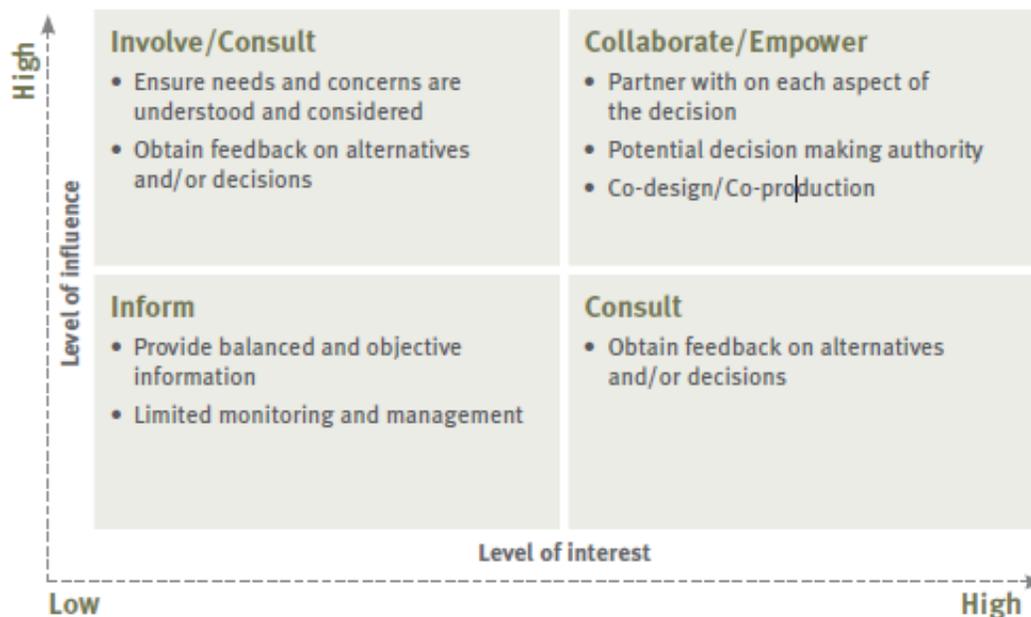


Figure 2.1 Stakeholder analysis tool showing types of engagement

Source: (State of Victoria, Department of Education and Early Childhood, 2011)

Table 2.1 Stakeholders by interest and level of engagement

Stakeholder by Interest and Level of Engagement	
Consult/Involve	Collaborate/Empower
<p>Livelihoods & Financial (Gain/loss)</p> <p>1) Private Sector Entities & Organizations</p> <p>a) Water Sports and diving businesses</p> <p>b) Fishing Interests</p> <p>c) Retail shops</p> <p>d) Taxi and tour Operators</p> <p>e) Financial services</p> <p>f) Hoteliers</p> <p>g) Tender Boat Operators</p> <p>h) Chamber of Commerce</p> <p>i) Cayman Islands Tourism Association (CITA)</p> <p>j) Association for Cruise Tourism ACT</p> <p>k) Cruise Operators (Carnival, Disney, Norwegian and Royal Caribbean)</p> <p>l) Cargo Operators</p> <p>Cultural/Heritage & Environmental Preservation</p> <p>2) Cultural Organizations/NGOs</p> <p>m) Cayman Islands National Museum</p> <p>n) The National Trust for the Cayman Islands</p> <p>o) Environmental Non-governmental Agencies (ENGOS) and other NGOs</p> <p>Community & Environment</p> <p>3) General Public</p> <p>p) Local residents/communities</p> <p>4) Other</p> <p>q) Visitors</p>	<p>Planning, Design, Regulatory; Implementation</p> <p>5) Governmental</p> <p>r) Port Authority</p> <p>s) Department of Transportation (DOT)</p> <p>t) DOE</p> <p>u) NRA</p> <p>v) Tourism Dept.</p> <p>w) Planning Dept.</p> <p>Non-Governmental - Private Sector</p> <p>x) Local Investors</p> <p>y) Cruise Operators (Royal Caribbean, Carnival)</p> <p>z) Cargo Operators</p>

2.2 Data Collection

Stakeholder consultations were undertaken to ascertain their awareness of the proposed project, their perceptions on the potential impacts on their communities/groups, socio-economic, cultural/heritage landscape and the natural environment. Interviews and surveys were the main methods used in consultations. Questionnaires were administered to the several stakeholder groups identified in Table 2.2. Households were used to determine overall sample size for the general public as it allows for a greater level of participation from a wider cross section of residents. Households were targeted across all Grand Cayman (regional level) with representative sample size based on population distribution by district. The local study area which includes areas within 1.2 miles (2km) of the project site and the wider George Town District accounted for the largest sample size. In addition to the general public, key stakeholder interviews were conducted with government and non-government stakeholders.

Table 2.2 Stakeholder Groups engaged in Consultations

Stakeholder Groups engaged in Consultations		
Stakeholder Group	Description of Stakeholders	Number of Participants
General Public	Households George Town (167); West Bay (64); Bodden Town (60); North Side (9); East End (8)	308
Business Stakeholders	Tender boat operators (Captains and Linesmen)	12
	George Town Business Operators	16
	Water Sports operators (Independent)	11
	Transportation service providers	5
	George Town Dive Shops	9
Industry Groups	Chamber of Commerce	62
	Land & Sea Cooperative	1
	Cruise Lines (Carnival, Disney, Norwegian and Royal)	4
Cayman Islands Government	Port Authority	1
	National Roads Authority	1
	Department of Tourism	1
	Department of Planning	1
Non-government Organizations	Cayman National Trust	1
	Cayman Eco	1

Questionnaires customized to each stakeholder group and consisting of closed and open-ended questions were used in surveys and as interview guides. Stakeholder consultations were ongoing between June and December 2014. The following tasks were undertaken:

- Survey of business stakeholders in George Town were June 19 -24, 2014
- Survey of households were conducted on weekends of June 28 to July 27, 2014
- Online survey of selected business stakeholders was July 16-24, 2014
- Chamber of Commerce administered an online survey to its membership September 15-19 2014
- Meetings with cruise industry representatives were October 16-28, 2014
- Survey of selected watersport operators on direct use economic valuation of George Town Harbour Reef was December 1-16, 2014

A public meeting reporting the preliminary findings of the EIA and soliciting comments from the public will be also be incorporated in the consultation process prior to the production of the final SIA.

2.3 Limitations

1. Structured personal interviews are usually associated with high costs and tend to be time intensive. This oftentimes results in high non-response rates. Interviews are however more favourable for open-ended questions. This enables the direct views of stakeholders to be better captured.
2. Stakeholder engagement was undertaken using multiple techniques and through multiple media. This increases the potential for participants to participate more than once. To overcome this limitation, analysis of each stakeholder group was conducted separately and the interpretation of results presented by stakeholder groups. It was found that the risk of duplicated responses and double counting are highest among business stakeholders.

3 Previous Stakeholder Engagement Activities

Several consultation activities were conducted with various stakeholder groups prior to the EIA phase of the project. These are summarized in Table 3.1.

Table 3.1 Summary of previous stakeholder engagement

Summary of previous stakeholder engagement			
Date/Place/Type	CIG Stakeholders	Non-CIG Stakeholders	Summary/ Key Issues raised
Jul 2, 2013	<ul style="list-style-type: none"> - CIG Reps - Port Authority 	<ul style="list-style-type: none"> - Tender operators, local retailing businesses, hoteliers, Chamber of Commerce (CoC) 	<ul style="list-style-type: none"> - Good for retail business - Concern about dredging impact on the stability of the Seven Mile Beach, and coral reefs
Jul 2, 2013		<ul style="list-style-type: none"> - Consultancy Organizations - Mott MacDonald Limited (MML); Waterhouse Coopers (PwC) 	<ul style="list-style-type: none"> - Negative impact on diving businesses and tender boat operators
Unknown	<ul style="list-style-type: none"> - CIG Reps 	Cruise line representatives - Carnival and Royal Caribbean	<ul style="list-style-type: none"> - Berthing important for passenger experience (extra time, less comfort, convenience and flexibility with mobility associated with tendering) and safety - Potential for larger ships to call - Increased costs to cruise operators - Potential for cruise lines to withdraw due to limited berthing (4). All calls use tender boats, only some will.
Jul 24, 2013 Public Sector	<ul style="list-style-type: none"> - Project Steering Group - National Roads Authority (NRA) 	n/a	<ul style="list-style-type: none"> - Road improvements required with or without project - Current dock traffic requires improvements - With project, current conditions not conducive for walkable down town; By-pass needed
Nov 20, 2013 (am) Private	<ul style="list-style-type: none"> - MML 	<ul style="list-style-type: none"> - Various Private Sector 	<ul style="list-style-type: none"> - Study corals and siltation

Summary of previous stakeholder engagement			
Date/Place/Type	CIG Stakeholders	Non-CIG Stakeholders	Summary/ Key Issues raised
Consultation on draft EIA TOR Gov't Admin Bldg.	<ul style="list-style-type: none"> - CIG - DoE 	Representatives	<ul style="list-style-type: none"> - Increased foot traffic and upland development. Current situation a “nightmare” - Need for clear demarcation of areas to access various activities (less confusion) - Land needs to accommodate Oasis/Genesis size ships - Shore defenses to protect the city from waves - Is there radiation risk from blasting? - Need for adequate assessment of economic benefits to Caymanians and the country - Accountability of EIA consultants needed to ensure adherence to TOR - Timing, handling grievances and objections to project - Minimize dredging (stick to stated design that does) - Need for local investors involvement, as cruise lines building piers will have “too much power” and local businesses are losing out - Public education needed on magnitude and extent of dredging and its implications - Need for alternative to project that still benefits cruise lines so they remain in the CI
Nov 20, 2013 (pm) Public Consultation	<ul style="list-style-type: none"> - MML - PwC - DOE 	Members of the Public 116 attendees	<ul style="list-style-type: none"> - Mitigation measures and cost important - Need for Public Education Campaign about sand from SMB

Summary of previous stakeholder engagement			
Date/Place/Type	CIG Stakeholders	Non-CIG Stakeholders	Summary/ Key Issues raised
Mary Miller Hall	<ul style="list-style-type: none"> - Minister of Tourism - Minister of Environment 		<ul style="list-style-type: none"> - Need for major changes to road system to accommodate double number of tourists. Who will fund? - Environmental impact of dredging (siltation and fines). Silt screens expensive and not effective - Project around for 40 years; George Town (GT) has least environmental impact - Environmental impact too great to support project. Silt will kill corals and fish. Loss of reef that protects GT. Moving cargo terminal to Atlantic Star will “ruin water sports” in GT. Loss of wrecks - Source of funding. Need for more local tour operators to be involved as business is being lost to cruise operators managing tours. Ships increased prices but not local tour operators. Local tour operators can’t compete with ship prices - EIA should address major catastrophe while ships are in port (fires, spillage etc.) - Include views of tour operators - Orientation of pier has potential to impact diving, snorkelling sites such as Balboa and Cali; glass bottom boats; reefs - Alternative sites – GT, Red Bay, Pageant Beach, Western Side of North Sound - Proposition for use of floating platforms instead of dock

Summary of previous stakeholder engagement			
Date/Place/Type	CIG Stakeholders	Non-CIG Stakeholders	Summary/ Key Issues raised
			<ul style="list-style-type: none"> - Potentially Increased risks from hurricane impact given location of destroyed reefs - Consider impact on overall tourism product - Need to preserve natural resources including waterfront -
Dec 2, 2013 Public questionnaire comments			<ul style="list-style-type: none"> - Generally consistent with above. Some supporting, some opposing and neutral opinions on the project

4 EIA Phase Stakeholder Engagement and Public Perception

This section summarizes the perspectives of public, private sector and non-governmental stakeholders obtained during the consultation process. Government agencies interviewed during this phase of the engagement process include the Port Authority of the Cayman Islands (PACI), National Roads Authority (NRA), Department of Tourism and Department of Planning. Non-government organisations, business stakeholders and the general public were also engaged in the process.

4.1 Selected Government Agencies

4.1.1 The Port Authority of the Cayman Islands (PACI)

PACI handles all maritime affairs (cruise and cargo) and has responsibility for managing channels and markers. PACI also has a small regulatory role related to dive boats and other small boats (focus mainly on safety). Larger boats are however regulated by the Maritime Authority. The PACI representative interviewed noted that the project would likely have macro-economic benefits from increased taxes as a result of increased numbers of cruise visitors. It is also believed that the project is the preferred option of cruise lines calling in the Cayman Islands as the pier is considered safer for passengers than the current practice of tendering. PACI is however concerned that increased capacity will require additional resources and responsibilities that will be placed on PACI and for which the organization will not be equipped to handle. It was noted that while the port authority can likely handle small incremental changes, in the long-term it will become increasingly difficult and expensive to handle the increased capacity. Key considerations noted by PACI are:

- Need for long-term strategic plan in order for cargo and cruise operations to safely co-exist. Present night-time operations for cargo can safely continue to co-exist with cruise for the next 10-12 years, however, planning for beyond is needed.
- Need to acquire additional human and financial resources for security purposes, tugs, marine pilots etc.
- Insurance coverage will be required for new berthing facilities. Currently insurance is coverage is presumed a liability of tender operations.

Refer to Appendix M (Cruise and Cargo Report) for additional information.

4.1.2 National Roads Authority (NRA)

NRA plans, manages and designs public roads and ground transportation. An estimated 42,000 cars on the island are used for transportation. The agency representative had similar comments to PACI regarding the potential macro-economic benefits to the economy through taxes. It was also noted that additional “spin-off” benefits are also likely. Concerns are mainly related to the NRA’s capability to meet the increasing demands on its existing resources. The agency notes that financial resources to improve the capacity of roadways will be required. Other comments/concerns are:

- Congestion within the immediate vicinity of the port area. The piers will enable passengers to be onshore in one hour, which is considerably less time than the current tendering process. Measures will be needed to deal with potential conflicts during peak periods of traffic, including tourist related traffic, especially on days when ships stay at berth later than usual.
- Security- in the event of a major emergency, access by emergency services (police, fire, etc.) to an area congested with people will be needed.
- Proposed pedestrianisation of Harbour Drive will affect the road network. There is no direct link from CBD to highways and therefore the current network will not support shutting down Harbour Drive unless alternative plans are made.
- While the capacity of road networks can be increased, funding will be required to achieve this.
- “Increase in cruise numbers may result in the two million threshold for passengers being surpassed, thereby placing added strain on tourism infrastructure and attractions”
- How does this project fit in with the George Town Revitalisation plan?
- What are the long-term plans for dealing with terrorism, fires, hurricanes and other emergencies at the port, given the number of passengers being targeted?
- What are long-term plans for managing resources used to support tourism?

4.1.3 Department of Tourism

The department is mandated to promote Cayman as a destination and is responsible for marketing and product development. The main focus of the department is the over-night/stay-over tourist. The Department representative however recognizes the potential for additional revenues from the project and identifies the following potential opportunities stemming from the project:

- Develop other ‘diamond in the roughs’ areas such as Pedro, St. James, Botanic Park, Mission House, Bird Sanctuary, South Sound, Ms. Lassie’s house, inter alia
- Explore other dive sites in addition to the existing 365 dive sites on the island
- Increased time for land based activities with no boat tendering

It was believed that construction risks should be managed in such a way that they do not have long-term impacts on the environment. Concern was expressed about the potential for dredging and other construction related activities to alter the marine environment and the impact on coastal resources, especially Seven Mile Beach. Other comments were:

- There will be a need to manage visitor experience and expectations. It was felt that there should be a focus on the quality of the experience offered to visitors rather than just increasing capacity.
- Over-exploitation of limited resources can damage attractions e.g. Seven Mile Beach, Turtle Farm and Sting Ray City. It was noted that capacity studies are being undertaken

by the Department to determine how to manage attractions in a sustainable manner without reducing the quality of tourist experiences.

- There are greater safety risks and issues to consider both for locals and tourists in expanding the cruise operations.
- Measures will be required to offset adverse impacts on wreck sites and the reefs .e.g. Cheeseburger Reef.
- Potential for the deterioration of air and water quality must be addressed.
- Traffic management issues will require special attention, as the removal of tendering means that there will be larger volumes of pedestrians on the roadways. Expansion of the existing transportation dispatch areas will be required. Additionally, an organised area will be required for small tour groups to historic George Town.

4.1.4 Department of Planning

The department functions as a unit of the Central Planning Authority (CPA). The CPA is responsible for providing approval for all land based developments, but does not have jurisdiction over marine based developments. Coastal works fall under the purview of the DOE and final approval for coastal works are given by cabinet via a coastal licensing regime. The representative of the Department noted that data to establish a baseline is lacking and may hinder a comparative analysis. The current environmental impact assessment will hence provide the baseline data and is expected to fill many of the existing data gaps as these relate to the project “e.g. traffic baseline data, carrying capacity studies for various attractions, economic and financial feasibility or project, etc.”

It is felt that land based activities are not being given adequate consideration. The recommendation is that in addition to the potential adverse impacts related to the marine environment; infrastructural capacity, site functionality, security, street/road capacity, wastewater and solid waste management should also be prioritized. The representative further noted that “it is difficult to gauge what economic benefits that project will generate when so much of the costs are unknown.”

4.2 Non-governmental Organisations

4.2.1 Cayman National Trust

The Cayman National Trust is a charity organisation with a membership of 10-15 persons. Core functions include the promotion of historic and environmental preservation of Caymanian resources and the establishment of protected areas. The Trust operates an environmental heritage register. Perceived positive impacts of the project identified are:

- Likely increase in business activities for transportation groups/associations
- Port will be able to generate revenues through landing fees

- Opportunity for the government to negotiate closing down of on ship restaurants for specified periods to facilitate more spending on island.

Concerns about the project included:

- Increase in the volume of persons and likely conflicts;
- Likely to be very limited benefits to locals; people should be made aware of who will lose and who will gain as funding constraints are likely to determine who gets greater benefits;
- Possibility for increasing crime and other social ills;
- If cruise visitors can walk on and off easily from ship, then they will spend less in Cayman. Most persons will go back on ship to eat as it is free and Cayman is expensive;
- There is a clear absence of a sustainable business plan; the project is more of a 'build, people will come' approach;
- Cruise ship benefits or expected outcomes may not materialize;
- Existing infrastructure is inadequate to support expected changes. How will congestion be managed?
- There is no comprehensive development plan to address infrastructure deficiencies e.g. there will be safety concerns as pedestrian facilities are inadequate, similarly tourists do not have a keen sense of safety when using roadways and as such motorists are faced with challenges associated with safety;
- The project represents a sacrifice of high end tourism for low end tourism....dive operators need more stay over tourist/visitors. They contribute more financially to the economy;
- The destruction and loss of heritage sites and reefs (e.g. Cheeseburger Reef);
- Changes in water flow will reduce water quality;
- Wave action will impact deposition and erosion, likely destroying coastal features;
- Tenders will lose jobs, who will offer them new jobs or adequate compensation?
- Security is currently lacking at the port, and with increased port traffic how will movement be managed to ensure no one is put at risk? What measures are being put in place to ensure security?

4.2.2 Cayman Eco

Cayman Eco is a clearing house for environmental information. The following comments/concerns were noted by Cayman Eco:

- Loss of the reefs and wrecks will impact divers and impact visitor experience;
- Berthing is likely to increase siltation, smothering reefs, killing coastal resources and wildlife;

- Alternative sites should be examined;
- The balance between cruise ship demands and returns should be properly examined as the environmental impacts and other resultant impacts, e.g. crime and loss of culture can far outweigh immediate economic benefits;
- Tourists come to the Cayman Islands because of its natural resources, therefore destruction and depletion of these resources over time will result in loss of visitors;
- This project represents a sort of 'love them and leave them' approach. Cruise ship operators have very high demands, however if attractions and resources become compromised, they will simply take their business elsewhere

4.2.3 Land & Sea Cooperative

The Land & Sea Cooperative is an umbrella organisation for local service/tour operators. The organisation is responsible for negotiating contracts for local operators. There are currently 60 members including administrative staff. The group believes the project will:

- Improve facilities for visitors and reduce waiting times;
- Increase competitiveness for Cayman as a viable cruise ship destination;
- More economic growth for Cayman and all interested stakeholders, including business groups, service providers, etc.

They however had the following concerns:

- The proposed location is not suitable as the impact from wave action on the facilities and George Town are not being properly considered. It is believed that storm surges have the potential to cause widespread flooding and destruction in George Town and that deepening of the seafloor through dredging, will allow for larger surges to develop, causing more expansive destruction.
- How will dredging and construction affect Seven Mile Beach? Changes in wave direction (littoral drift) can cause deposition and removal of sediments affecting the coastline.
- Loss of dive spots is a major impact on diving community and Caymanian heritage.
- Loss of dive spots/wrecks/ reefs will be a loss of income for dive operators and potential loss of cruise revenues, as many tourists come to the Cayman Islands for diving.
- How will safety of divers be addressed during the operational phase of the project? Ships and divers operating within the same harbour will undoubtedly pose a conflict and will pose threats to the safety of divers and visitors who wish to dive.
- There is potential for increase in crime, and possible tourist harassment due to limited local benefits.
- If cruise operators are major investors in project, it may take a very long time for locals to see any benefits at all, as the cruise operators must first be repaid for their investments.
- Tenders will lose jobs.

- Project is a conflict with cargo operations. How will cargo and normal cruise business operate with construction plans? Who will absorb costs for delays, loss of revenues?
- Capacity to manage the new facility does not currently exist, what measures will be put in place to address capacity issues on and offsite?
- There are four main tourist attractions on the island. These facilities cannot support the proposed volumes from the cruise ship and therefore new attractions will be needed.
- Increased conflicts between cruise visitors and overnight visitors. Overnight guests have complained that they do not enjoy the attractions when cruise ships are in port as the attractions are over-crowded and there is unbeneficial overloading of attractions; they do not get to truly enjoy the experience, they say.
- Current road infrastructure is inadequate to handle existing traffic loads and pedestrians. What measures will be put in place to address the increased volumes expected with more cruise ships?
- New berthing facilities will likely result in tourists spending less time and money on the island as they are able to walk on and off the ship easily. This will create a backlash on the local economy as fewer businesses will generate revenue. Spin-off impacts could be quite adverse.
- Department of Tourism needs dedicated department for cruise ship tourism to allow for capitalisation of the marine culture of Cayman. There is a deliberate approach in looking at high end versus low end tourism, which is not good for the economy. Value needs to be placed on all types of tourist and tourism products.

4.2.4 Cayman Islands Chamber of Commerce

The Cayman Islands Chamber of Commerce (CoC) is a non-profit organization that exists to support, promote and protect Cayman businesses and the wider community. In an effort to present the perspectives of its membership, the Chamber of Commerce prepared and distributed a 17-question survey to its members between September 15 and October 31, 2015. The survey was distributed to 645 main contacts of Chamber member businesses and organizations across all industry sectors. A total of 62 valid responses were received and tabulated. The Chamber shared the aggregate results with the SIA team. The Chamber highlighted that the results reflect the views of participating Chamber members and should not be regarded as the overall view of the Chamber's council or staff.

Profile of participants in Chamber of Commerce survey

Table 4.1 summarizes the profiles of the member businesses/organizations that participated in the Chambers' survey. Participants were from a range of industries including the financial services, retail, transportation, construction, hotel/resort, restaurant, health care, wholesale and manufacturing (Table 4.1). The large majority of the surveys were completed by top level managers in participating member businesses/organizations. The businesses/organizations varied in size from less than five to over 100 employees with 30% employing between 5 and 15 employees. Thirty two percent (32%) of participants reported using/and or conducting business at

the GTH port facilities. A third of them reportedly import/export goods for businesses. Others operate tours from the GTH port facility; conduct recreational/leisure activities on the waterfront; are employed at businesses operating from the cruise terminal facilities; and occasionally clears personal goods. As depicted in Figure 4.1, over two thirds of the businesses/organizations were located in George Town. One third of businesses/organisations reported that the present level of services and facilities now offered at the cargo/cruise port to be inadequate and have experienced problems dealing with the cargo/cruise terminal. The main issues identified were traffic, inadequate parking, delays, poor customer service, overcrowding and inadequate infrastructure and facilities (Table 4.2).

Table 4.1 Summary of Chamber of Commerce survey respondents

<p>Respondents to the survey distributed by the Chamber include:</p> <ul style="list-style-type: none"> - 14 Financial Services - 11 Retail - 4 Transportation - 4 Construction - 3 Hotel/Resort - 3 Restaurant - 1 Health Care - 1 Wholesale - 1 Manufacturing - 24 Other 	<p>The surveys were completed by:</p> <ul style="list-style-type: none"> - 39 Owner/President/CEOs - 2 Senior Executive or Senior Official - 6 Director or Vice President - 8 Managers - 11 Other
<p>The number of employees of participating member businesses/organizations:</p> <ul style="list-style-type: none"> - <5 employees - 14 - 5-15 employees - 20 - 15-26 employees - 10 - 26-50 employees - 4 - 51-100 employees - 9 - >100 employees - 9 	<p>Respondents activities conducted at the Port by number of respondents show:</p> <ul style="list-style-type: none"> - 1 - Employed at the cruise terminal - 1 - Occasionally clears personal goods - 5 - Employed at a business operating from cruise terminal facilities - 5 - Conduct recreational/leisure activities on waterfront - 8 - Tour operator - 9 - Imports/exports goods for business

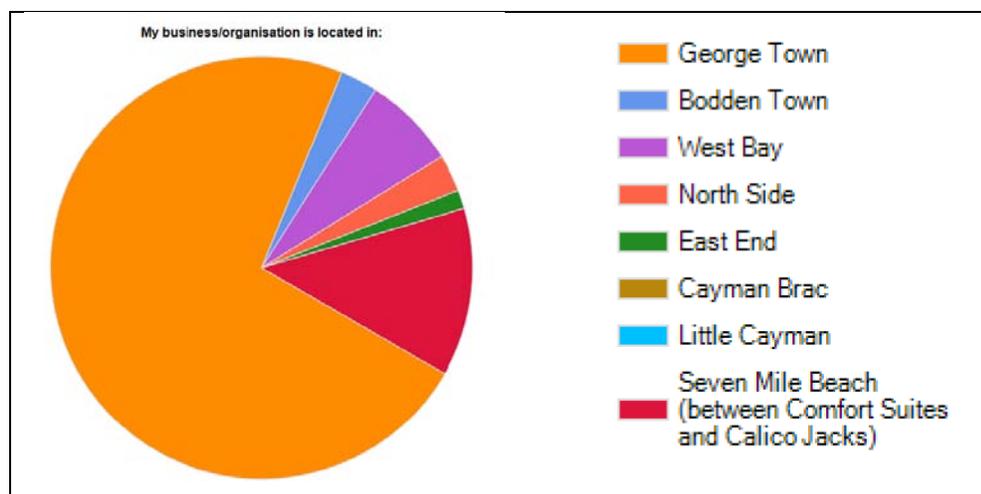


Figure 4.1 Location of participating member business/organisations in the Chamber of Commerce survey

Table 4.2 Problems experienced while using/conducting business at GTH port facilities

Problems experienced at port by GT Business overs		
	# of Respondents	%
Traffic	18	27%
Inadequate parking	17	26%
Too many delays	15	23%
Poor customer service	15	23%
Overcrowded	12	18%
Inadequate infrastructure and facilities	10	15%
Inadequate security	6	9%
Too few workers/staff	5	8%
Polluted environment	5	8%
Inaccessible	3	5%

Perceptions of project impacts (CoC Members)

Participants were asked about their support for dredging of the GTH to facilitate the construction of the cruise berthing facility and the importance of the project to their business and the Cayman Island's economy. Of the 58 participants that responded to the question on dredging, 60% did not support dredging of the GTH. Fifty three percent (53%) of respondents thought the project was important and very important to their business/organization while 47% believed that it was not important to their business/organization (Table 4.3). Some 67% believed that the project was important/very important to the Cayman Island's economy, while 33% thought that it was not important to the country's economy.

Table 4.3 Support for dredging and perceived project importance

<p>Do you support dredging of the George Town Harbour to facilitate the construction of the new cruise berthing facility?</p>	<p>How important do you consider the cruise berthing facility is for your business/organisation?</p>														
<p>Dredging is one of the proposed activities of the project. Do you support the dredging of the George Town harbour to facilitate the construction of the new cruise berthing facility?</p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>25</td> </tr> <tr> <td>NO</td> <td>35</td> </tr> </tbody> </table>	Response	Percentage	YES	25	NO	35	<p>How important do you consider the cruise berthing facility is for your business/organisation?</p> <table border="1"> <thead> <tr> <th>Importance Level</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>VERY</td> <td>25</td> </tr> <tr> <td>IMPORTANT</td> <td>10</td> </tr> <tr> <td>NOT</td> <td>35</td> </tr> </tbody> </table>	Importance Level	Percentage	VERY	25	IMPORTANT	10	NOT	35
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Importance Level	Percentage														
VERY IMPORTANT	32														
IMPORTANT	12														
NOT IMPORTANT	22														

The CoC included “highlights of 55 respondents to the survey they administered. Comments are presented as positive or negative (concerns) in Table 4.4.

Table 4.4 Comments by Chamber of Commerce members

Comments/Concerns (Impacts)	
Concerns	Positive
<p>It will utterly destroy the Seven Mile Beach and all associated "Stay-Over" tourist facilities.</p> <p>It will be the end of our really lucrative tourist trade as we have known it for over 40 years. It's an even dumber idea (if that's possible!) than McKeeva's idea of building islands in the North Sound!</p> <p>We need to put the money and the effort into the airport which will actually enhance the visitor experience for the well-to-do tourist who spends freely here -not try to provide luxury for the cheapskate one-day cruise passengers. We've got to stop this nonsense of letting the "big money" up north dictate to us and instead protect what the really well-off visitor comes here to enjoy -the still beautiful Seven Mile Beach. GOVERNMENT NEEDS TO WISE UP! This is a damn-fool proposal!!</p> <p>The dredging of the proposed area will be negative to the environment and eventually thus for the business community. The environment is what this island's tourism is built on.</p> <p>The infrastructure is not right for a massive cruise ship /visitors increase either. Why not rather upgrade the tender boats and concentrate on high end ships. (but I guess they want a port facility.)</p> <p>The cruise ship terminal has been discussed for some 20 or 30 years. So, I am skeptical that it will really come about. As stated above, greatly</p>	<p>Visitors may spend more time on shore and spend more money.</p> <p>Visitors may have a much better experience the first time they visit they are likely to come again</p> <p>It will help bring in much needed customers to all businesses in George Town.</p> <p>Cruise ship market is a vital part of the economy of these islands, we need to continue to grow it and expand it and the only way is by having the necessary facilities to accommodate bigger and better ships that are available right now.</p> <p>It will ease many pressures on the economy.</p> <p>Without cruise berthing I probably won't survive past another year or two even with reduced rent.</p> <p>It will increase passengers coming on shore, increase spending on Cayman shores and increase revenue to the general public. It will affect everyone in and outside of George Town. Residents working in GT retail or with a tour etc. will have additional income to spend with other vendors outside the "tourist" market</p> <p>Regarding cruise passengers, it will create a better experience hopefully transitioning them to stay over visitors.</p>

Comments/Concerns (Impacts)	
Concerns	Positive
<p>improved efforts to obtain more quality stay-over tourists is much more important than spending a huge amount of money on the development of the new cruise ship terminal. If it does go ahead, careful consideration should be put into the arrangements for new stores on the dock area so as not be unfair to long established George Town stores.</p> <p>The proposal as last disclosed by Government and their consultants whereby dredging may be utilized and a solid concrete dock is built using the traditional methods could and will result in not only environmental destruction, but massive interference in traffic and business operations in George Town.</p> <p>The fact is that there is no space to accommodate existing operations, including visiting cruise and cargo ships during construction.</p> <p>The alternative idea of floating piers which can be built on shore and towed into place is a valid one and should be given serious and open considerations before we make a mistake that cannot be remedied.</p> <p>Cayman is one of a few harbours in the world where cruise visitors can snorkel and see live coral and marine life, within a few yards of the ships' anchor. This is one of the main reasons folks come to Cayman in the first place i.e. to enjoy our marine environment. If we destroy it and replace it with silt and concrete defeats the whole purpose of tourism.</p> <p>Cayman needs to tread very carefully before making a mistake; however if we are going to</p>	<p>For cargo and port business, it should provide for a more efficient process thereby allowing businesses to save time and be more efficient.</p> <p>I believe it will benefit the Cruise business in a positive way. We will be more competitive with other Cruise destinations.</p> <p>It will help the tourism industry greatly and make Cayman more easily accessible to tourists from the ships.</p> <p>A huge improvement to the overall business community and the entire Cayman economy.</p> <p>A huge positive effect for all users, stakeholders and the general community.</p> <p>It is a necessary must! Other Caribbean Islands are laughing at us for now talking for over 10 years to improve airport and Port but nothing has happened. Our economy needs a desperate boost to get employment, and we need cruise tourism as part of revenues for the next 20 years +. If we don't build and include the cruise ships to invest then they will leave our shores once Cuba opens up.</p>

Comments/Concerns (Impacts)	
Concerns	Positive
<p>build this dock, it must be open to all Caymanians and residents to become equity participants and not give control to the cruise lines or any other outside interests. We must own our future; not mortgage our children's. But our environment must take precedent over everything.</p> <p>I think the focus should be on stay-over tourism, and that the funds should be spent on expanding/redeveloping the airport. They come back, stay longer and spend more.</p> <p>If it was built we think we would have less cruise ship passengers and above all it would be aesthetically a disaster in our opinion.</p> <p>Additionally there would be no tender back up for Spots during a Northwester.</p> <p>Extreme capital expenditure is required for project</p> <p>It will seriously damage the only reef currently available for glass bottom boat tours and cruise ship snorkelling boat excursions.</p> <p>The Soto's reef system is unique and must not be damaged. Each summer the Soto's and Eden Rock reefs fill with spawning silversides baitfish, attracting large predatory fish and divers. Some of my best images have been made there, which in today's social media frenzy translates into worldwide recognition for diving in Cayman. Cayman needs all of the photo opportunities it can muster, including those of the harbour's reef systems.</p>	

Comments/Concerns (Impacts)	
Concerns	Positive
<p>Packing the roads with more taxis, buses, trash and pedestrians will only harm the stay-over tourism here.</p> <p>I feel the Red Bay/Old Prospect option should still be on the table.</p> <p>If it is not going forward we may have to down size.</p>	

4.3 Downtown George Town Business Community

4.3.1 GTH Dive Shops (Marine Commercial)

Profile and Economic Baseline

A survey of dive shops operating within the GTH was conducted in December 2014 to provide information on the potential economic impact on this group as a result of dredging the GTH. Nine entities participated in the survey. They offered products directly using the marine environment of GTH, including sea world observatory, diving, snorkelling, snuba, and helmet snuba. Seven of the nine participating entities reported that 100% of their diving and other water sports activities are undertaken in the George Town Harbour while another reported that 45% of activities are undertaken in the Harbour.

They reported a combined 82,340 customers per year. Of this, 48% are cruise visitors, 47% air/stay-over visitors and 5% local residents. Reported charges range from US \$39 to US \$165 for activities undertaken in GTH. Total reported revenue earned from direct use of the natural marine environment and cultural heritage assets of GTH is US \$6,394,800 per annum.

When asked about the best reefs in the island, 11 sites were identified, six of which are explicitly within the GTH and the proposed dredge footprint or immediately adjacent to the project construction zone (Table 4.5).

Good access/close proximity to shore and to business and excellent marine life (fish and coral) were the most common reasons given for choice of best in island sites. Other reasons given were the shallow depth; calm waters; staff and customer favourite; the unique and adventurous swim-through at Devil's Grotto; and the sites suitability to accommodate various skill levels for diving. Eight of the nine participating entities reported using between 2 to 10 sites within GTH.

Table 4.5 Best dive sites identified by George Town dive shops

George Town Dive Shops (n=9)			
Best in Island Dive Sites	# of Respondents	% of Respondents	Located within GTH
Eden Rock	4	44%	YES
Devil's Grotto	3	33%	YES
Turtle Reef	3	33%	NO
Cheeseburger/Soto's Reef	2	22%	YES
Sunset House	2	22%	NO
North and East sides of Cayman	2	22%	NO
Balboa Wreck	2	22%	YES
North Wall	1	11%	NO
Cali Wreck	1	11%	YES
Orange Canton	1	11%	NO
West side of Cayman	1	11%	Includes GTH

Perceived Project Impacts on Dive Shops

All nine entities believe that the construction of the project would impact their business. Seventy eight percent (78%) indicate that they do not support dredging the harbour for construction of the piers, while one supports dredging “where necessary and kept to a minimal so less damage to our environment.” Eight believed that the dredging would impact their business while one replied “don't think it will.” The main dredging and project construction impacts identified are summarized in Table 4.6. Comments from the dive shops are summarised in Table 4.7.

Table 4.6 Perceived impact of dredging and project construction on dive shops

Impact of Dredging – GTH Dive Shops (n=9)		
Impact of Dredging/Construction of Project on Business	# of Respondents	% of Respondents
Destroy ecosystems and diminish/damage marine wildlife	4	44%
Poor Water Visibility due to silt and sediment	3	33%
May have to change dive sites (based on access and water quality)	3	33%
May put us out of business	3	33%
Significant disruption in business	3	33%

Impact of Dredging – GTH Dive Shops (n=9)		
Impact of Dredging/Construction of Project on Business	# of Respondents	% of Respondents
Pollution	2	22%
Construction traffic	2	22%
100% of business impacted on short term	2	22%
Construction Noise	1	11%
Longer travel to alternate dive sites	1	11%
Lower revenue and higher/enormous costs	1	11%
Significant disruption in courses, the main revenue earning activity	1	11%
Unable to operate in short term due to poor visibility	1	11%
Long term poor visibility as inclement weather stir up disturbed sediments	1	11%
Corals will be smothered	1	11%
Immediate, short term impact	1	11%
Long-term impact to dive businesses depending on extent of dredging	1	11%
Short-term may cause hiccups	1	11%
Long-term better for island	1	11%

Table 4.7 Comments from dive shop regarding project

Comments on Project by GTH Dive Shops (n=9)		
Comments	# of Respondents	% of Respondents
Cayman Islands tourism will grow from air arrivals	1	11%
Cruise pier is likely to bring minimal increase in passenger numbers and/or spend	2	22%
Air arrivals have more time and (broadly speaking) more money to spend	1	11%
Country's primary tourism focus should be on the airport and hotel	2	22%
Existing infrastructure (roads, waste, attractions, etc.) inadequate to handle increased cruise passenger arrivals	1	11%
Focus should be on low volume, high income air arrivals	1	11%

Comments on Project by GTH Dive Shops (n=9)		
Comments	# of Respondents	% of Respondents
Our business uses Cheeseburger/Soto Reef over 90% of the time, removal will make diving at current location impossible	1	11%
Propeller wash from entering/departing ships will almost certainly make diving impossible in locations immediately north of the pier e.g. in the vicinity of Lobster Pot	1	11%
Strongly opposed as our location will not facilitate diving if dredging occurs	1	11%
Choose a deeper site as sand will likely refill dredged areas and in future this will require further dredging	1	11%
George Town is avoided on cruise days due to crowds. If streets are pedestrianised when cruise ships are in port how do we cater to the needs of overnight visitors?	1	11%
The tourism industry depends on diving. All the new hotels being built will need good dive sites and some of the better ones will be lost by this project	1	11%
Construction may hinder the very product we offer to cruise visitors	1	11%
Long-term impact to all tourism industry including retail shops in town	1	11%
The unknowns of dredging or building a dock are too many.	1	11%
More and more customers are seeking the unique and less crowded destinations. The dock will put Cayman at the same level as other islands hence we may lose our character as a different island. Construction in George Town and other areas has started us down that path. Cayman Islands will be no different from St. Thomas, St. Martin or any other island destination.	1	11%
Should look at the environmental impact of tender operators going back and forth in addition to dredging impact	1	11%

4.3.2 Other George Town Business Stakeholders (Land-side Commercial)

Interviews were conducted with representatives of 15 businesses within 0.6 mile (1.0km) of the project site. The types of businesses represented are shown in Table 4.8. The persons interviewed were mainly owners or a relative of the owner (9) or an employee (4). A third of the businesses have been in operation for 10 years or more while over half have been operating for 1-9 years. Only one respondent indicated that they have membership in the Chamber of Commerce. This

minimizes the potential of duplicating results from stakeholders that participated in the engagement process previously.

Almost half of participants rented their shops. Two owned while three had multiple locations, which were both owned and rented. Seven of the 15 participants reported sales while six reported business expenses. All but one participant had monthly sales less than CI\$40,000 and one large operator had sales exceeding CI\$200,000 (Table 4.8). Business expenses also varied widely from less than CI\$10,000 per month to over CI\$200,000 per month. Total reported sales among the seven respondents was CI \$1,992,000 per annum, of which approximately 51% are from cruise visitors. Cruise visitors represented between 2% and 100% of the customer base of participating businesses.

Table 4.8 Types of business participants

Profile of Down Town George Town Business Participants (n=15)		
	Frequency	Percent
Type of Business		
Attraction	1	7
Jewellery Retailer	3	20
National Museum	1	7
Restaurant	2	13
Retail	6	40
Souvenir Retailer	2	13
Total	15	
Average Monthly Sales (in CI\$)		
< \$10,000	2	14
\$10,000 - \$20,000	1	7
\$20,001 - \$30,000	2	14
\$30,001 - \$40,000	1	7
>\$200,000	1	7
Average Monthly Business Expenses (in CI\$)		
<\$10,000	2	13
\$10,000 - \$20,000	1	13
\$20,001 - \$30,000	2	7
>\$200,000	1	7

Project Awareness and Perceived Impacts among GT Businesses

All except one was aware of the proposed project with newspaper, radio, and television being the most common source of information. Forty percent (40%) of respondents reported using the port facilities to export/import goods, as an employee at a business operating at the port and as a tour operator.

Ninety three (93%) percent of respondents believes that the project is important-very important to the Cayman Islands and all though it was important-very important to their business. Sixty percent (60%) of the businesses indicated that they support dredging of GTH to facilitate construction of the piers while 20% do not support dredging (Figure 4.2). The main reasons given for supporting dredging were the level of importance of the project, which was related to the importance of the tourism sector and the direct and indirect income anticipated for businesses and the government. Environmental destruction or damage was the reason for not supporting dredging.

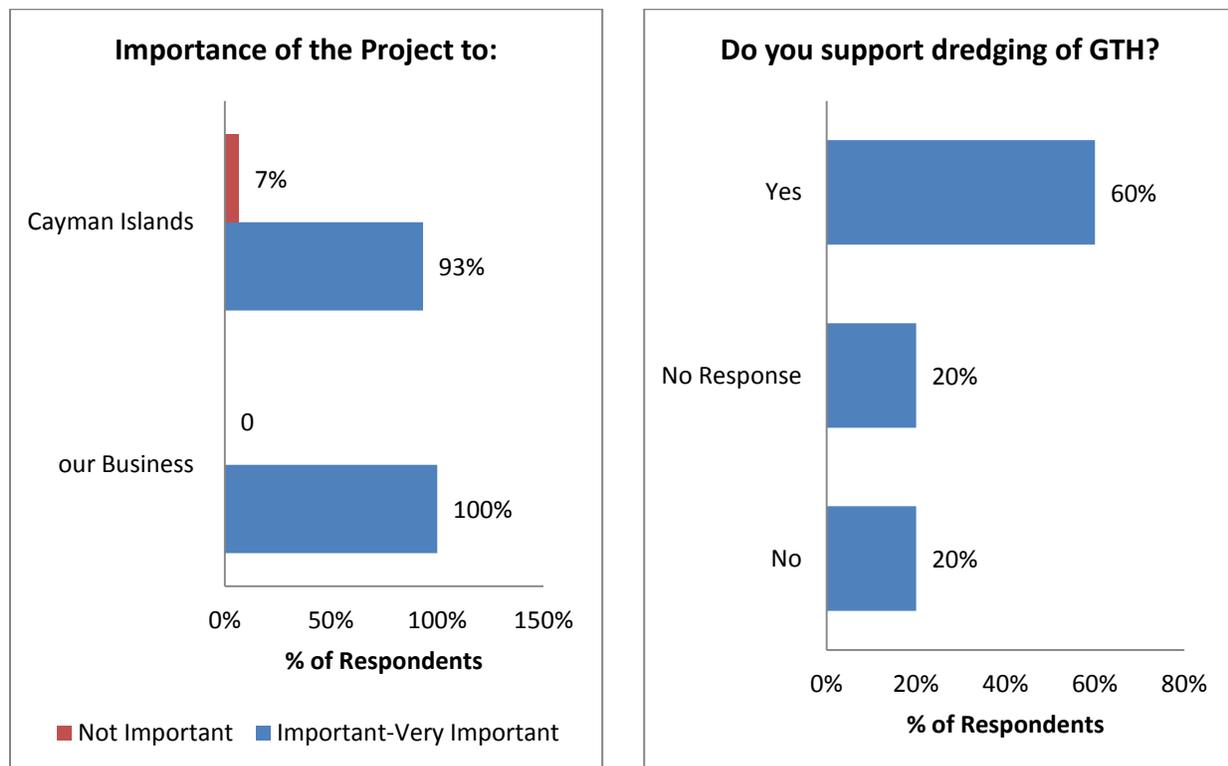


Figure 4.2 Views on the importance of the proposed project & support for dredging among GTH businesses interviewed

View on Cultural Heritage Assets among GT Businesses

In regards to cultural heritage assets, over 65% of GT business participants believe that the cultural heritage assets were important to very important to the Cayman Islands. Ship wrecks and monuments (67% each) ranked higher among participants than buildings and cultural assets (Figure 4.3). They also believe that any damage or loss to these cultural heritage assets would be significant to very significant to the Cayman Islands.

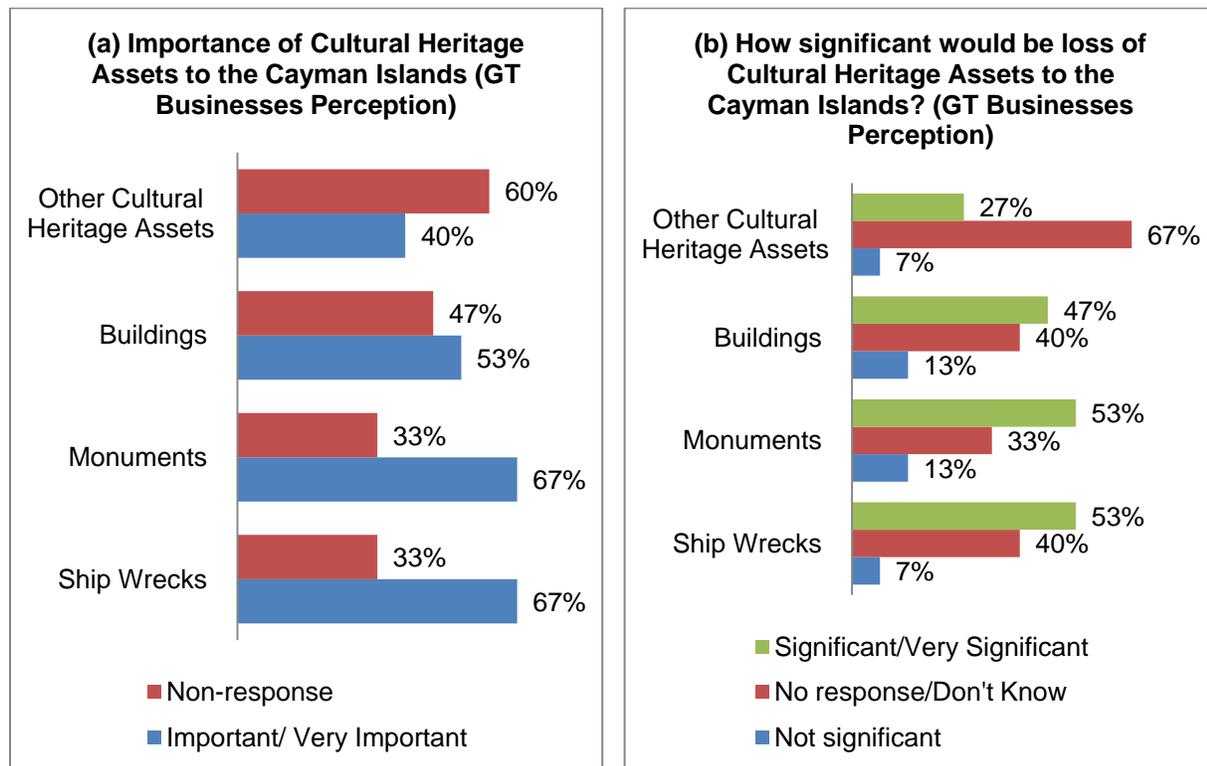


Figure 4.3 Percentage distribution of GT businesses' views on (a) the importance of cultural heritage resources and (b) the significance of loss or damage to the Cayman Islands

Project Impacts During Construction

Participants were asked how they thought the project would impact selected environmental, socio-economic and cultural heritage receptors during and post construction. Responses are summarized in Table 4.9 and Table 4.10. There was an average non-response rate of 53% for this question. Based on the receptors identified by the highest percentage of participants, perceived positive impacts during the construction phase of the project tend to be economic in nature, related to business and job opportunities. These include local job opportunities, local businesses and the Cayman economy. Participants thought both residents of Caymanian and non-Caymanian status would be positively impacted during construction. Perceived negative impacts during construction were environmental receptors including coral reefs/coastal resources, noise levels in George Town and water quality, watersports and artisanal fishing. Participants believed that cruise tourism, cargo operations and tender operations would also be negatively impacted. It was however felt that overnight tourism would not be affected. As it relates to cultural heritage, participants believed that ship wrecks would be negatively impacted but that buildings and monuments would not be impacted. Traffic and visual aesthetics were other negative impacts identified.

Table 4.9 Perceived impacts during construction (GT Businesses)

During Construction Impacts (n=15)				
	Positively %	Negatively %	No Effect %	Not Sure / Non- Response %
Water quality		27	20	53
Coral Reefs/coastal resources		40	13	47
Noise Levels in George Town	7	47	7	40
Water Sports (Fishing, Diving, etc.)		40	13	47
Artisanal Fishermen		47	13	40
Cruise tourism	2	20	13	53
Overnight tourism	7	13	33	47
Tenderers		40	7	53
Cargo operations	7	27	7	60
Job Opportunities (locals)	53			47
Local Businesses	40	7	7	47
Cayman's Economy	47	7		47
Caymanians	40	13		47
Non-Caymanians	40	7	7	47
Visual aesthetics		27	20	53
Traffic	7	47		47
Ship Wrecks		33	7	60
Heritage Sites (monuments, buildings)		20	33	47

Project Impacts During Operation

There were some shifts in the views on receptors impact post construction/operations phase of the proposed project compared with those during the construction phase (Table 4.10). Water sports, cruise tourism, cargo operations, visual aesthetics and cultural heritage receptors are believed to be positively impacted during the post-construction phase of the project as opposed to negatively impacted during the construction phase. It is believed that water quality and corals/coastal resources will continue to be negatively impacted as will traffic. The perception of the impact on tender operators was evenly split between positive and negative among participants.

Table 4.10 Perceived impacts post construction/operations (GT businesses)

Post Construction/Operations Impacts (n=15)				
	Positively %	Negatively %	No Effect %	Not Sure / Non- Response %
Water quality		33	13	53
Coral Reefs/coastal resources		30	20	60
Noise Levels in George Town	7	7	40	47
Water Sports (Fishing, Diving, etc.)	33	13	7	47
Artisanal Fishermen	13	20	7	60
Cruise tourism	47			53
Overnight tourism	7	7	33	53
Tenderers	20	20		60
Cargo operations	27	7	7	60
Job Opportunities (locals)	53			47
Local Businesses	47	7		47
Cayman's Economy	47	7		47
Caymanians	47	7		47
Non-Caymanians	47	7		47
Visual aesthetics	27	7	13	53
Traffic	7	27	13	53
Ship Wrecks	20	7	13	53
Heritage Sites (monuments, buildings)	20	7	13	60

Eighty percent (80%) of the GT business stakeholders believe that the project will impact their business. Increased sales/business from increased number of cruise passengers coming on land was the most prevalent response. One participant noted that the project will have positive long-term impacts on their business, while another noted that the dredging will impact cultural heritage sites.

Issues facing GT Business Community

Issues facing the business communities included declining number of cruise visitors and high operating costs. High costs such as rent, high duties, taxes, utilities and health insurance, reportedly result in higher priced goods. It was also felt that highly trained, friendly and reliable staff is needed as well as additional amenities in George Town. Participants believed that improvements needed within the GT business community were:

- Facelift for downtown George Town;
- Later closing times to rebuild and revive George Town;
- Lower taxes and costs (fuel, rent/lease, stamp duty);
- Better port facilities;
- Parking and pedestrian areas;
- Restaurants and cafes providing local foods;
- Training for staff.

Comments on the Proposed Project

Specific comments/views on the proposed project among business participants were:

Positive

- “Any loss resulting from the project will be minimal. Loss of a few dive shops is acceptable given that the project will benefit 98% of the population;
- Businesses have been closing;
- Cruise passengers have reservations about using tenderers; some have indicated that if they were able to walk on to shore they would visit more;
- Having more cruise ship passenger will enable longer opening hours in town; more employment as staff work longer hours;
- Project needed urgently;

Negative

- If project destroys marine ecosystem it is not worthwhile; Tourism is one of two major income earners and it is on the decline, attempts should be made to rebuild sustain it;
- Build finger pier, upland not needed;

General

- The experience at Camana Bay is different - elegant and comfortable; downtown is more diverse;
- Tours are not directed to George Town; government unable to fund all improvements required”;

4.4 Tender Operators

4.4.1 Profile of Respondents

Structured interviews were conducted with 12 tender boat Captains and Linesmen in June 2014. In total 48 persons are employed by CMS' tender services operations. Each boat has a captain and two linesmen on board. The operators interviewed have been with the company for an average of 6 years with 17% on the job for over 10 years, 33% between 5-10 years and 50% less than 10 years. Low season weekly salaries ranged from CI\$500-\$600 for Captains and \$300-\$450 for Linesmen. High season weekly salaries are CI\$800-\$1,200 for Captains and CI\$500-\$700 for lines.

4.4.2 Baseline

Almost 60% of tender operators interviewed thought the level of service at the cruise terminal is currently adequate while 33% thought that they were inadequate. One person did not respond to this question. The main reasons given for considering the facilities inadequate were:

- lack of shelter for visitors;
- insufficient number of bathrooms;
- long length of time it takes visitors to get on and off tender boats;
- inadequate security to safeguard passengers;
- Lack of “proper information for visitors.

Improvements needed at the facility were:

- “better docking facilities” and better access to and from ships for visitors;
- shelter from the sun were improvements needed;
- A digital information monitor to provide information to visitors;
- Improved communication among all stakeholders as it relates to the arrival and departure of the ship was also recommended.

Approximately 27% of respondents noted that the goods available to tourist were too expensive and that they deter spending.

4.4.3 Project Awareness & Impacts

All of the tender operators were aware of the proposed project. The main source of information was the media.

Sixty seven percent (67%) believed that dredging will destroy marine life and ecosystem and that this will make the area less attractive to tourist (Figure 4.4). One noted that if the environment will be destroyed, “it is not worth it.” Others believe that divers' safety will be at risk.

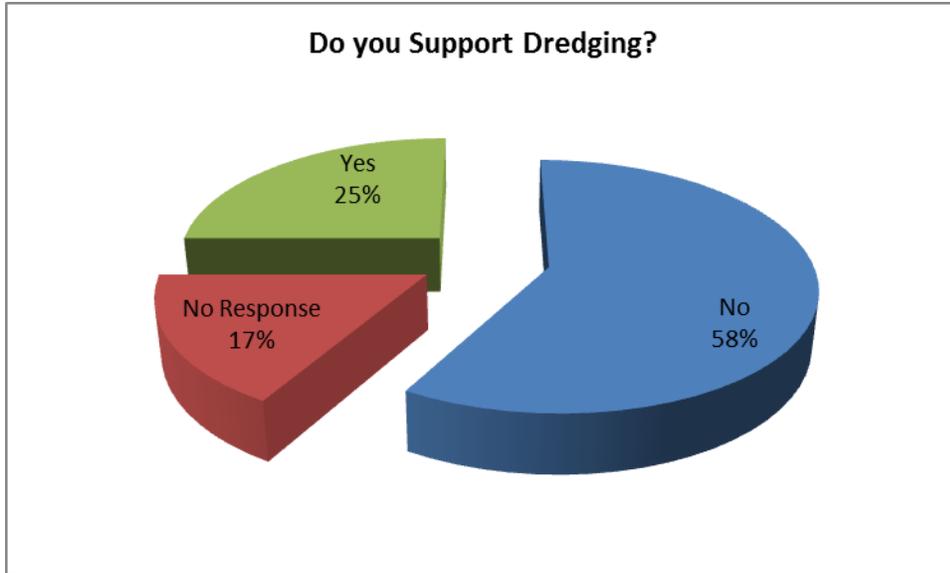


Figure 4.4 Support for dredging among tender operators

Seven five percent (75%) of participating tender operators believe that the proposed project is not very important (Figure 4.5). They believed that *“the benefits of project are uncertain and that if the attractions will be destroyed, then the trade-offs are not worth it”*. They also noted that they will lose their jobs. The remaining 25% believed that the project will generate revenues and create job opportunities.

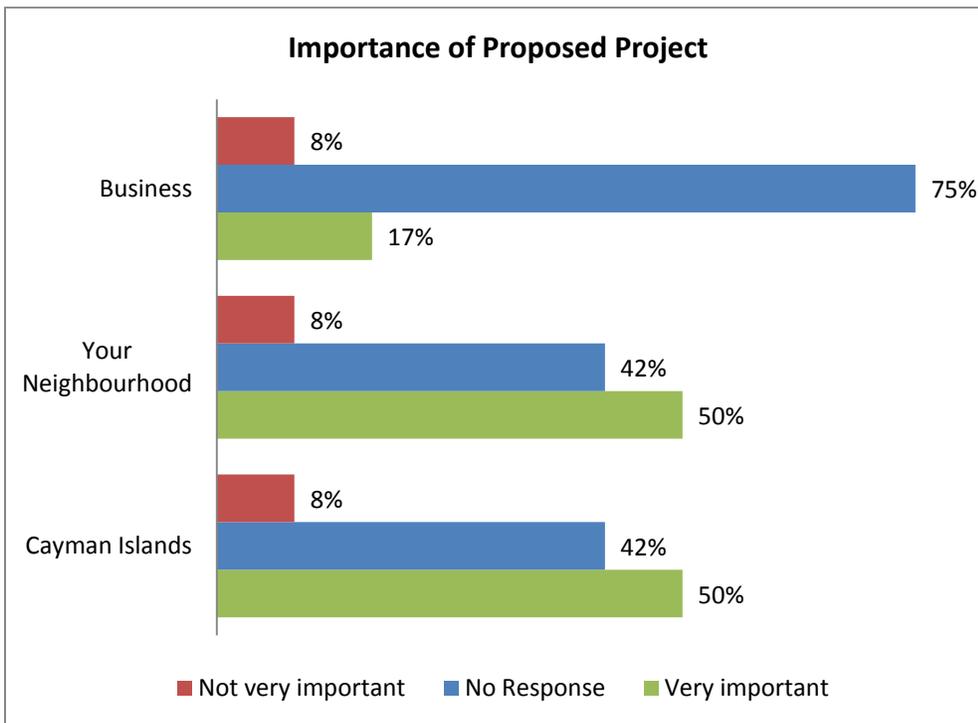


Figure 4.5 Views on the importance of the proposed project (tender operators)

When asked what measures should be put in place to mitigate negative impacts on the group, the following were the responses:

- One third of tender operators thought that their management company CMS should ensure all workers are placed in full-time jobs before fully pulling their services;
- Eight percent suggested that compensation packages or assistance with obtaining alternative employment opportunities;
- One respondent thought that it “would be good if company would still offer services” after CMS withdraw theirs.

The withdrawal of these services has the potential for income losses of CI\$557,000-\$787,000 per annum based on a 2:1 ratio of captains to linesmen.

4.5 Transportation Services (Tour Bus) Operators

4.5.1 Profile and Baseline

Five tour bus operators were interviewed on site at the Cruise Facility while they were awaiting the arrival of a cruise ship in June, 2014. There were four males and one female. All except one were over 50 years old and has been operating for over 20 years. Operators provide services at other locations including Spots for cruise ships in bad weather, hotels and the airport. One reported having a trade and business license to operate.

Four owned their buses while one was company-owned. Dolphin Discovery, Island Tours, Botanical Gardens, Sting Ray City, Dive sites, Turtle Farm, Seven Mile Beach, Morgan’s Harbour and Captain Boat were identified as the most popular destinations. They average four trips per day with 15-29 passengers.

Two operators are of the opinion that the infrastructure at the existing cruise terminal is inadequate to meet the needs of all interest groups. It was also noted that the alternative location at Spots was also inadequate. Parking, aesthetics, poor drainage in visitor areas during rainfall periods, and concerns about safety of visitors with the overlap with the cargo sections of the Port for boarding ground transportation were identified as deficiencies.

Two issues affecting the group are inadequate space for tour buses and competitions from budget tour bus operators. It is believed that improved waiting facilities are needed at the port.

4.5.2 Project Awareness and Impacts

All respondents were aware of the proposed project, the main source of information being the media. Two were in favour of dredging but stated that they “are hoping it does not result in the damage of other places especially seven mile beach.” One person did not support dredging noting that it “*may damage the marine environment*”.

Three operators believe the project is very important to the Cayman Islands as “cruise ships have said the island needs a pier and if this is not provided they will pull their services; we need the business.” One commented that they were in support of “a more efficient and safe movement of visitors.”

Three operators provided the following comments on the impact to their sector:

- “Very important, Potential for increased revenues and visitors”
- “Very important as the various tour operators (e.g., Websters, Reliable, Tropicana and Majestic) will benefit”
- “Very important as All operators will get equal opportunity to earn money”

General comments on the project were:

- “There needs to be regulation put in place that prevents cruise ship operators from having direct say in the way pier projects are managed. They can give their requirements for safe docking of their vessels, but should not guide the process
- Purpose of a terminal is that when bad weather takes place cruise ships can still safely dock. This project does nothing to change the current problem of bad weather and ships being unable to dock
- South Sound is a better alternative and more persons would benefit as tourists will need to be bussed into George Town
- There is need for a port, just not in this location, however not sure where is most suited. South Sound is a much safer harbour
- Not in full support of this project, but Caymanians need this dock
- Cheese burger is a very important reef and is worth saving”

4.6 Cruise Lines

Meetings were held with four cruise lines in October 2014. Records from three meetings were reviewed for their views on the proposed project design options and potential impacts. All designs included two piers. See Chapter 7: Summary Analysis of Alternatives for layout designs. Comments provided by the various cruise lines are summarized below.

4.6.1 Cruise Line #1

Comments were provided on the designs based on functionality and “commercial equivalence” of the proposed piers. It was noted that the two piers should be functional and have the same widths. Cruise Line #1 highlighted that “they would not invest in a project that they did not approve, nor would they make calls to such a project.” Reference was made to a 2006 proposal that was prepared and submitted through a collaborative effort with Cruise lines and the CIG.

A larger land area for reclamation was recommended. The representatives argued that a larger land area would enable “more efficient landside operations for the cruise berthing facility.”

The aging trend of passengers and increasing numbers with mobility issues were highlighted as issues to consider.

Comments on potential environmental impacts and mitigation of negative impacts were based on Cruise Line #1’s experience. No evidence was provided at the time of the meeting. Coral

relocation was cited as a feasible strategy which Cruise Line #1 has been engaged in for over 20 years with a success rate of 70-80%. Focus on live organisms and not rocks, was suggested.

It was noted that similar projects did not have long-term impacts from layers of fines (silt and sediments) from dredging as ship traffic will dissipate them once operations started.

4.6.2 Cruise Line #2

Frustration on the lack of progress over the past seven years since the last proposal was expressed by this cruise line. It was noted that their largest ship currently has to sail past the George Town as the capacity of the existing facilities cannot support the ship. Layout designs that included piers that were too long and/or varied in performance levels were considered unsuitable. It was recommended that the selected option should include potential to accommodate larger ships in the future. This cruise line expressed interest in financing and building a one pier design, but would consider financing two piers with measures to recoup costs from other users.

Additional comments/suggestions were provided on the technical designs and requirements based on various fleets types, weather conditions, space requirements for screening, etc.

A larger land area was proposed to accommodate terminal facilities.

The representatives noted that change in tendering services will result in increased rate of disembarkation, and associated impacts on landside services such as buses and taxis). Alternative models of transportation to meet the changed functional needs such as water taxis in addition to landside transportation were recommended.

4.6.3 Cruise Line #3

Similar to the others, Cruise Line #3 highlighted the functional and navigational requirements based on their fleet. Passenger walk was also an issue pointed out.

Cruise Line #3 acknowledged the environmental issues associated with the project but highlighted that the design minimizing environmental impact is similar to one of their least successful locations, based on the length of passenger walk and pier width to cost ratio for people movers. It was also noted that the navigation aspects would need to be modelled to prove functionality.

Cruise Line #3 also raised questions on landside development and tender operators.

4.7 General Public (Households)

This section summarizes responses from the general public. This information was obtained through surveys targeting households within the SIA study area as well as the other districts of Grand Cayman. The following communities were surveyed.

- Bodden Town
- Barkers
- Frank Sand
- Fountain Road
- George Town
- North Side

- Outpost St
- Prospect
- Red Bay
- Randyke Gardens
- South Sound
- West Bay
- Winsor Park

A total of 308 households were surveyed. All 308 surveys were completed resulting in a 100% response rate. Response rates for specific questions or parts of questions however varied.

4.7.1 General Profile of Participating Households

Fifty percent (50%) of respondents were females while 47% were males. Two percent of those surveyed did not respond to this question (Table 4.11).

Table 4.11 Gender Distribution of Respondents (Households)

Gender Distribution of Respondents (Households)		
Gender	Frequency	Percent
Female	155	50
Male	146	47
No Response	7	2
Total	308	100

Some 86% of respondents were between the ages of 19 and 59 years. The 40-49 age group accounted for the largest proportion at 30% followed by the 30-39 age group which accounted for 20% of respondent (Table 4.12). Eleven percent (11%) of respondents belongs to the 60 years and over age group, the lowest age group represented among respondents.

Table 4.12 Age Distribution of Respondents (Households)

Age Distribution of Respondents (Households)			
Age Group	Frequency	Percent	Cumulative Percent
18-29	60	19	19
30-39	63	20	40
40-49	87	28	68
50-59	56	18	86
60 and over	35	11	98
No Response	7	2	100
Total	308	100	

College/University was the highest level of education attained for 32% of respondents, consistent with national educational levels of the labour force. Close to thirty percent (28%) indicated that they had post-secondary skills training while 32% had up to high school level education. Post-secondary levels were higher than the 20% national average while high school level was lower than the 39% national average. Some six percent (6%) of respondents attained up to primary level education while one percent (1%) indicated other (Figure 4.6).

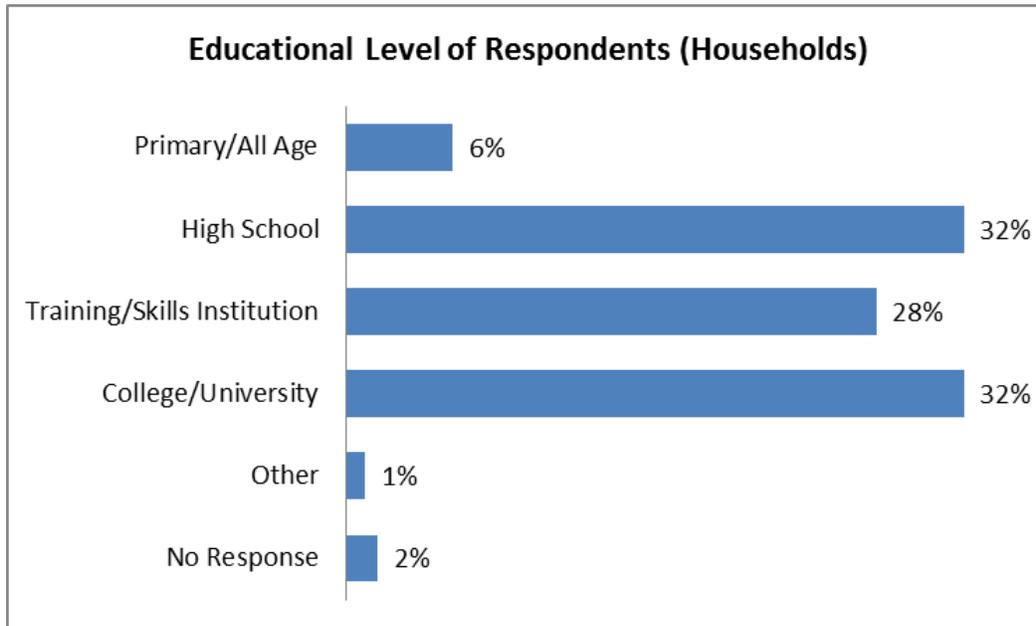


Figure 4.6 Education level of respondents (households)

The average household size among respondents was six persons, higher than local, regional and national averages. Thirty six percent (36%) of responding households were of sizes consistent with the national, local and regional averages of two and three, respectively. Over 90% had three or fewer children in their households and 55% had two or less adults.

Thirty four percent (34%) of respondents indicated that they currently reside in George Town (Figure 4.7). Some 22% reside in West Bay while 14% reside in Bodden Town and 5% in Prospect. Almost 60% of households had resided at their current residences for 12 years or less (Table 4.13). Close to twenty percent (24%) have been residing in their homes for 13-26 years while 10% have resided there for over 26 years. Almost 55% of households reported owning their homes while 37% rent or lease their homes (Table 4.14).

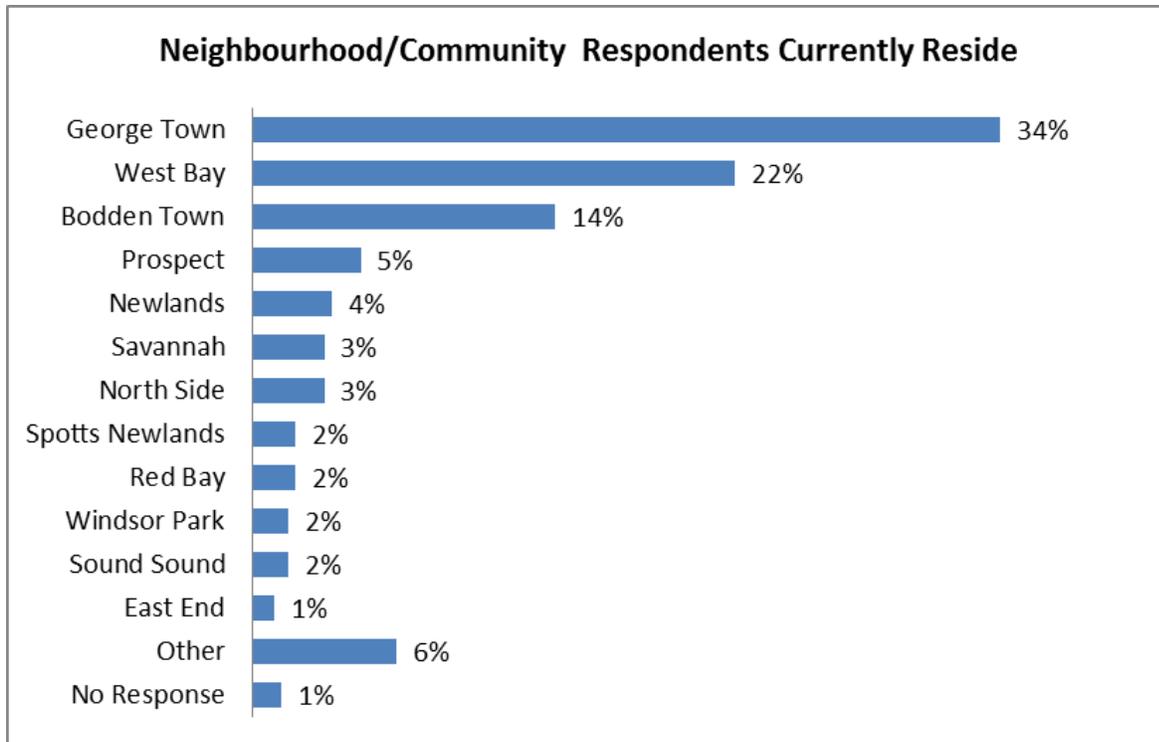


Figure 4.7 Neighbourhood/community respondents currently reside

Table 4.13 Number of years of residency in current community (households)

Length Residing in Community			
Years Resident in the Community	Frequency	Percent	Cumulative Percent
≤12	175	57	57
13-26	75	24	81
27-41	38	12	94
42-62	16	5	99
No Response	4	1	100
Total	308	100	

Table 4.14 Housing Tenure among Households

Housing Tenure among Households			
Dwelling Tenure	Frequency	Percent	Cumulative Percent
Own	169	54.9	55
Rent	113	36.7	92
Other	16	5.2	97
No Response	9	2.9	99.7
Don't know	1	0.3	100.0
Total	308	100.0	

Data on general amenities, municipal and social services available to households were obtained from the ESO Compendium of Statistics and are included in Sections 2.3, 2.4 and 2.5. Household-specific mode of transportation was however also included in the survey. The data shows that 80% of households used private vehicles as their main mode of transportation. Ten percent (10% travelled by bus, 4% walked and 3% cycled (Table 4.15).

Table 4.15 Main mode of transportation of households

Main Mode of Transportation of Households			
Mode of Transportation	Frequency	Percent	Cumulative Percent
Private Vehicle	247	80	80
Bus	31	10	90
Walk	11	4	97
Cycle	9	3	98
Multiple Modes	4	1	98
Other	3	1	99
No Response	3	1	100
Total	308	100	

4.7.2 Economic Activities of Households

Employment and Income

Eighty two percent (82%) of participants reported that they are employed. Of those employed, 83% have full-time employment while 5% worked part-time and 10% were self-employed (Table 4.16). Table 4.17 summarizes the occupational level of respondents. It shows that 30% of

respondents belong to the Skilled/trade/technical/clerical/sales occupational level group. Fourteen percent (14%) belonged to the Professional/Large business owner/Manager occupational level.

Four percent (4%) reported being unemployed, a rate that is two percentage points less than the national unemployment rate. Five percent reported being retired; three percent are students; and one percent housewives.

Table 4.16 Employment Status of Employed Respondents (Households)

Employment Status of Employed Respondents (Households)			
	Frequency	Percent	Cumulative Percent
Full-time	211	83	83
Self-employed	25	10	93
Part-time	13	5	98
Other	4	2	100
Total	253	100	

Table 4.17: Occupational Skill level of Respondents (Households)

Occupational Skill level of Respondents (Households)			
	Frequency	Percent	Cumulative Percent
Unskilled/Labourer/Domestic	23	7	7
Semi-skilled/machine operators	17	6	13
Skilled/trade/technical/clerical/sales	93	30	43
Small farmer/micro-business owner	21	7	50
Small business owner/Manager/Administrator	19	6	56
Medium business owner/Manager/Semi-professional/ Large Farmer	12	4	60
Professional/ Large business owner/Manager	44	14	74
Unemployed/Housewife/Student/Retired	42	14	88
Other	28	9	97
No Response	9	3	100
Total	308	100	

Income

Approximately 80% of participants responded to the question on monthly income. The data shows that the lowest (< CI\$799 and highest (> CI\$7,200) income categories each accounted for five percent of respondents (Figure 4.8 {a}). Almost 50% earned between CI\$2,400 and CI\$4,799. The >CI\$3,200-4,799 income category accounted for the largest proportion of respondents (18%). This was followed by the CI\$2,400-3,199 (16%) and CI\$1,600-2,399 (15%) categories.

Sixteen percent of all participating households reported having additional income other than employment. Rent, family, business, jobs and pension were among the main sources reported [Figure 4.8 {b}]

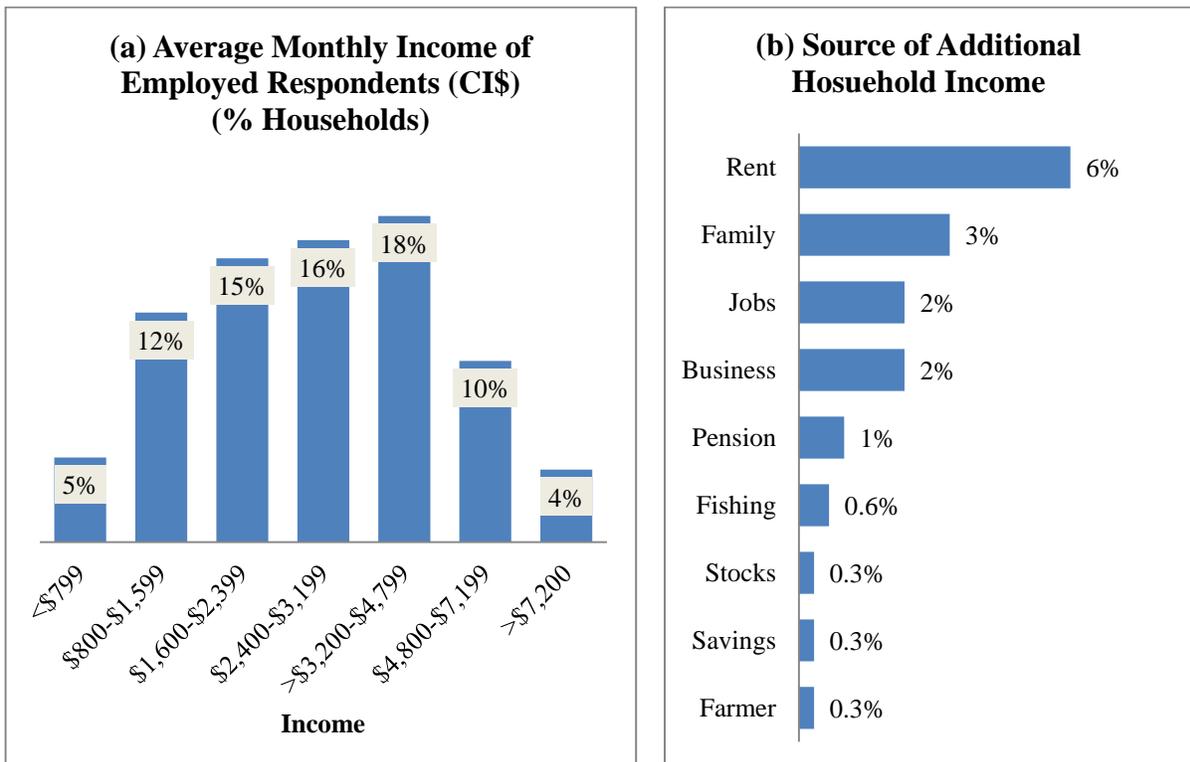


Figure 4.8 (a) Average monthly household income (b) main source of additional household income (CI \$)

4.7.3 Community Development: Projects, People and Citizen Involvement

Information on community development and social linkages was obtained through household survey respondents' expressed appreciation for their neighbourhoods and participation in community activities. The quiet/peaceful nature of the neighbourhood was the characteristic with the highest number of respondents (Table 4.18). This was followed by access to services and place of work for which 21% of respondents indicated. Community cohesion (friendly people), safe and secure accounted for 14% and 11%, respectively while 10% valued the natural and cultural resources and aesthetics.

Table 4.18 Neighbourhood characteristics valued and appreciated by households

Neighbourhood Characteristics Valued and Appreciated by Households	
	Percent
Quiet/Peaceful	43%
Access to services/amenities/business/work	21%
Community Cohesion	14%
Safe/Secure/Privacy	11%
Nature/Beauty/Natural & Cultural Resources	10%
Other	2%

Households reported engaging in a range of recreational activities in their neighbourhoods (Table 4.19). Sporting activities including soccer/football, walking, and basketball at parks, stadiums and community centres, were most common. The beach and water sports activities including diving and sailing were also popular. Some heritage sites and attractions named by household respondents included Turtle Farm, Dolphin Cove, Hell, Rum Point, Botanical Garden, Smith Cove, Town Hall, and the auto museum.

Table 4.19 Recreational Activities of Households

Recreational activities of Households (n=308)		
Recreation Activity	Frequency	Percent
Parks & Sports	126	41%
Beach	38	12%
Botanical Gardens/Attractions	26	8%
Church	20	6%
Restaurants, shopping, movies, etc.	9	3%
Water Sports (Sailing, diving, etc.)	8	3%

The main areas identified for improvements within the neighbourhoods of the SIA study are included in Table 4.20. Roads and drainage/flood control were the most common area of improvement that was identified by households. This was followed by community facilities and youth activities, community policing and the need for pedestrian-friendly improvements such as street lights, speed bumps and sidewalks.

Table 4.20 Desired neighbourhood improvements (households)

Desired Neighbourhood Improvements among Households (n=308)		
	Frequency	Percent
Roads & Drainage	65	22%
Community Facilities, Youth activities (Sports, parks, etc.)	58	19%
Community Policing	26	9%
Street lighting/sidewalks/speed bumps	17	6%
Housing and lower rent	9	3%
Jobs/Opportunities for Caymanians and Non-Caymanians	7	2%
Waste (garbage) management	6	2%
Mosquito Control	5	2%
Awareness of Wildlife and Preservation	2	1%
Better maintained public launch ramps and docks & Coastal Improvements	2	1%
Bus Service	2	1%

Neighbourhood/protection watch, area committees, home owners/strata associations, Red Cross and youth club were some organizations identified within the neighbourhoods in the SIA study area. However, on average less than 10% of households reported having membership in these organizations. Voluntary organizations contribute to the communities through the provision of assistance to persons in need, including for food, training and spiritual support. Disaster relief, “keeping each other safe” and community counselling were other roles mentioned.

4.7.4 Natural Resource Utilization of Households

Community members reported using marine/coastal and terrestrial (land) natural resources in their communities. Approximately 98% believed that marine/coastal resources are important/very important while 94% believed terrestrial resources are important/very important (Table 4.21). Almost 70% of respondents reported utilizing these resources (Table 4.22). Marine/coastal resources utilized are mainly beaches, coral reefs and fishing grounds.

Table 4.21 Importance of natural resources (households)

Importance of Natural Resources						
	Important/ Very Important		Not Important		Don't Know/ No Response	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Marine/Coastal	302	98	1	0.3	2	1
Terrestrial	288	94	11	4	5	2

Table 4.22 Utilization of natural resources (households)

Utilization of Natural Resources			
	Frequency	Percent	Cumulative Percent
No	88	29	29
No Response	7	2	31
Yes	213	69	100
Total	308	100	

Natural resources are utilized for domestic, commercial and recreational purposes. Recreational use was the most common use among respondents accounting for 52% of total respondents (Table 4.23). Only one percent (1%) of households surveyed use resources for commercial purposes. Recreational uses of marine/coastal resources are mainly swimming, diving, sailing and water sports (refer to Table 4.19). Terrestrial resources such as the geologic outcrop at Hell, the Botanical Gardens, the Mastic Reserve and Barkers are attractions for site seeing.

Table 4.23 Purpose for utilization of natural resources (households)

Purpose for Use of Natural Resources		
	Frequency	Percent
Commercial	4	1.3
Domestic	78	25
Recreational	161	52

Note: Percentages will not total 100 as multiple responses were given

An estimated 38% of respondents indicated that pollution threats exist within their communities (Figure 4.9). Pollution on land was identified by 13% of respondents. Water pollution was noted by eight percent (8%), another two percent (2%) noted air pollution while less than one percent

(1%0 noted noise pollution. Another 12% of respondents reported the existence of multiple threats. The main sources of pollution threats identified included:

- Land pollution: mainly from community members, improper disposal of garbage and the presence of the waste dump/landfill;
- Water pollution: boats and cars (oil/fuel leaks), development, improper garbage disposal, tourists and community members;
- Air pollution: emissions from cars and boats, community members and the waste landfill;
- Noise pollution: community members.

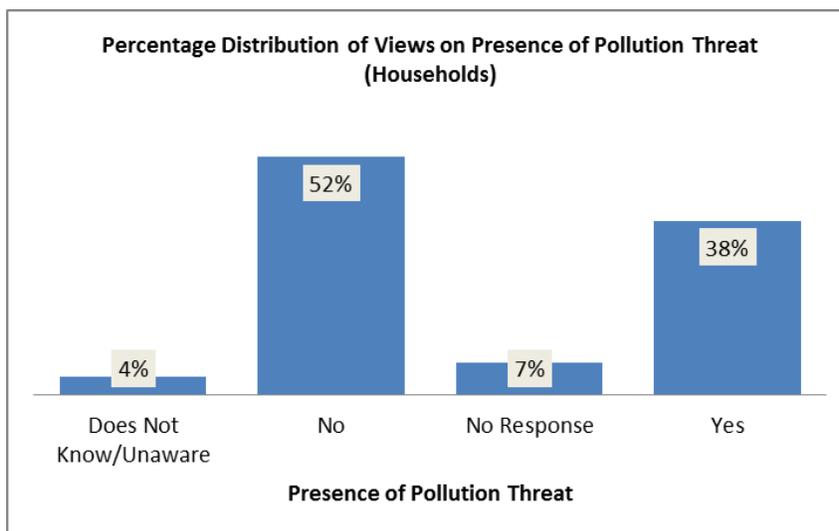


Figure 4.9 Percentage distribution of views on presence of pollution threat (households)

4.7.5 Central Business District (Down Town George Town)

Central Business District

An estimated 50% of households surveyed indicated that they visit the down town George Town area daily (Figure 4.10). Another 36% visit the area either 2-3 times per week or weekly. Fourteen percent (14%) visit the area once or twice monthly. The main reasons for visits to the CBD were:

- Work and/or to conduct business
- Access to goods and services including healthcare, banking, dining, shopping and visiting family and friends
- Commuting and passing through

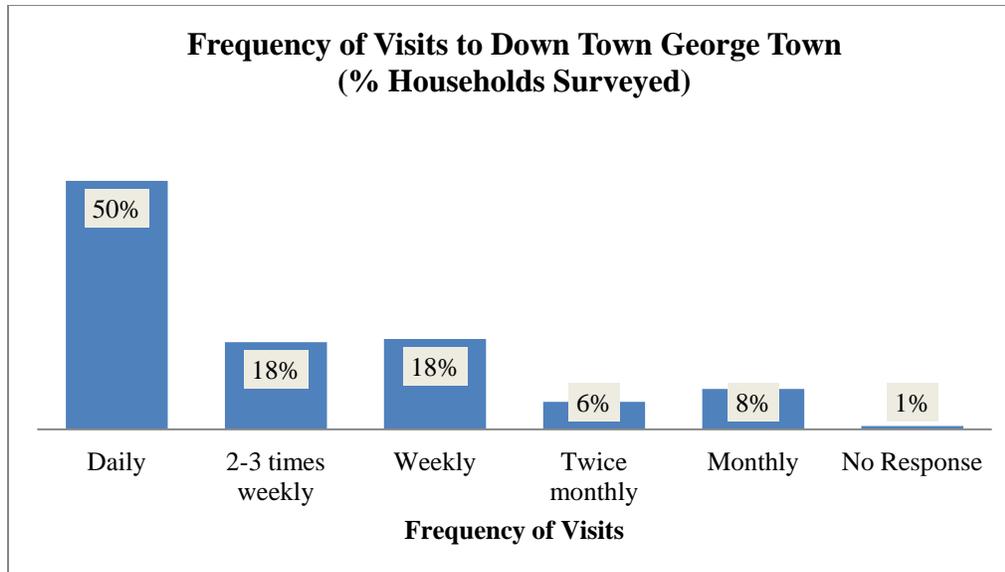


Figure 4.10 Percent distribution of household respondents frequency of visits to the downtown George Town area

The characteristic of the CBD most valued by respondents was the convenience and ease of conducting multiple activities (business, work, personal errands, and services) within a central location and within a small geographic range. This is consistent with the main reasons for visiting the area. Of note were a few interesting quotes, which stood out from other responses to the question on what is most valued about the down town area. These quotes were selected as they can be considered relevant given the nature of the proposed project, the varied and wide range of stakeholders and their opinions, and the overall magnitude of the potential impacts on the points mentioned. Quotes are:

- “Easy access to everything like stores, restaurants and banks”
- “Everything but a little bit crowded”
- “Great location but under or improperly used”
- “Not very attractive. Needs development a lot”
- “Nothing much anymore. The natural beauty and the island feel has been destroyed”
- “The Caymanian feel”
- “The historic sites”
- “Watching visitors interact with locals, shops and bars”
- “You can still walk by the waterfront”

Usage of Port Facilities by Households

An estimated 11% of households surveyed reported that they use and/or conduct business at the existing George Town Port Facilities. Specific activities include:

- Conduct recreational/ leisure activities on waterfront;
- Employed at a business operating from cruise terminal facilities;
- Imports/ exports good for business;
- Occasionally clears personal goods;
- Tender;
- Tour operator.

When asked about their views on the adequacy of the existing port facilities, four percent thought existing cargo facilities are adequate, while 1% thought they are inadequate. In regards to existing cruise facilities views were the opposite. An estimated 3% of respondents believe that facilities at the cruise port are inadequate while less than one percent believes it is adequate. The main areas of inadequacy pointed out include:

- Inadequate infrastructure and facilities, which result in inadequate parking, overcrowding and high traffic volumes
- Too few workers/staff
- Too many delays
- Pollution of the environment

Project Awareness and Perceived Impacts

Almost 90% of households surveyed are aware of the proposed project Figure 4.11(a). The most common source of information on the project was the media (newspaper, television and radio). Other sources included community members (word of mouth) and the elected official, i.e., councillor. Over 85% of households believe that the project is important to very important to the Cayman Islands compared with 7% that believe that it is not important Figure 4.11 (b). Less than one percent was not sure while five percent did not respond. When asked about importance to the neighbourhood where they live, 45% believe the project is important/very important while 23% felt that it was not important. Those unsure and did not respond represented one and thirty percent of households surveyed, respectively.

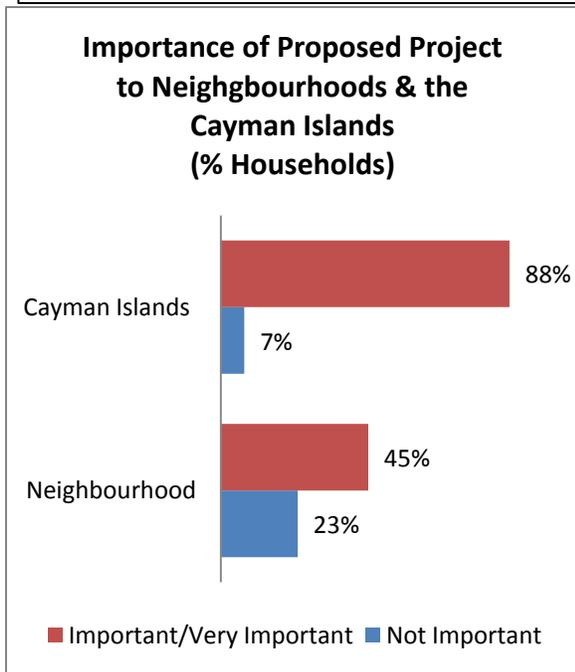
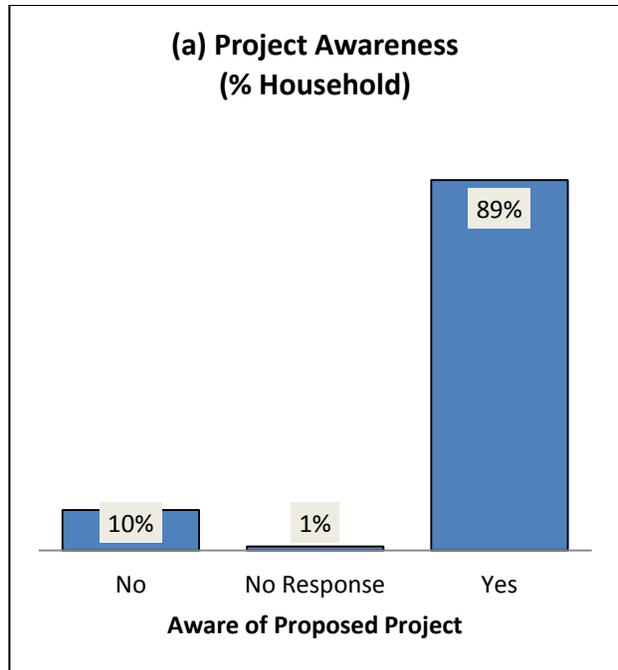


Figure 4.11 (a) Percent distribution of project awareness (b) importance of project to neighbourhood and Cayman Islands (% households)

Households' Views on Cultural Heritage Assets

Household participants were also asked about their views on the cultural heritage assets of the Cayman Islands. A large proportion of respondents believe that the cultural heritage assets of the Cayman Islands are important/very important (Figure 4.12). Among the types of cultural assets monuments, buildings and ship wrecks were all ranked important/very important by approximately 90% of respondents. Respondents were also asked to rank the significance of any

loss or damage to the cultural heritage assets of the Cayman Islands. Consistent with their views of the importance of these assets, the large majority of respondents believe that any loss or damage would be considered as significant/very significant loss to the country. For monuments, buildings and ship wrecks, over 80% of respondents shared this view.

An estimated 1% of households identified loss and damage to cultural assets and structural impact from blasting as potential impacts of the proposed project.

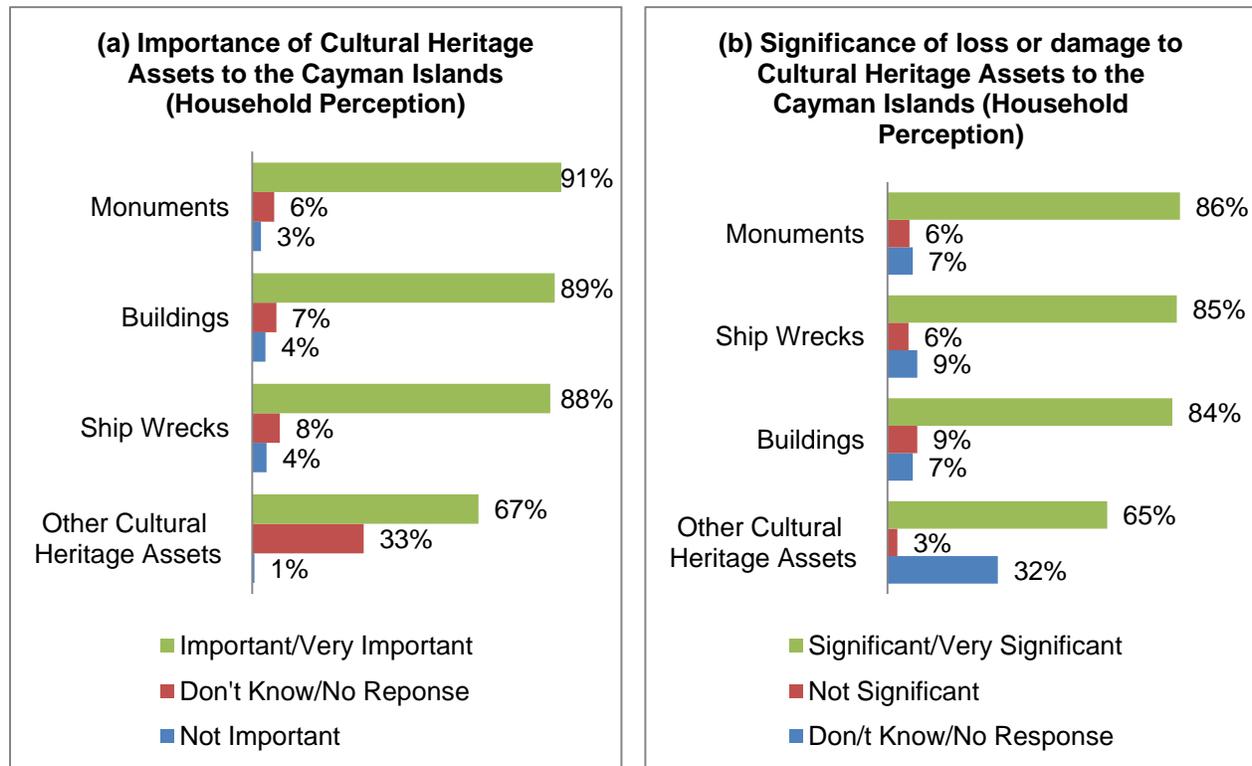


Figure 4.12 Percentage distribution of households' views on the (a) importance of cultural heritage resources and (b) the significance of loss or damage to the Cayman Islands

4.7.6 Project Impacts

During Construction Impacts

Participants were asked how they thought the project would impact selected environmental and socio-economic receptors during and post construction phases of the project. Responses are summarized in Table 4.24 and Table 4.25. Response rates for this question were very high (over 90%). Based on the receptors identified by the highest percentage of participants, perceived positive impacts during the construction phase of the project tend to be economic in nature, related to business and job opportunities. These include local job opportunities, local businesses and the Cayman economy. Participants thought both residents of Caymanian and Non-Caymanian status would both be positively impacted during construction. Perceived negative impacts during construction were environmental receptors and groups that rely on the environment for livelihoods. These include water quality, coral reefs/coastal resources, noise levels in George Town, water sports and artisanal fishing. Participants believed that cruise tourism,

cargo operations and tender operations would also be negatively impacted as would be visual aesthetics and traffic. It was however felt that overnight tourism would not be affected. As it relates to cultural heritage, participants believed that ship wrecks would be negatively impacted but that land-based heritage assets (buildings and monuments) would not be impacted.

Based on averages, impacts during construction were negative (37%) compared with 30% positive and 24% no effect. On average, only 3% of respondents were unsure of impacts.

Table 4.24 Percent distribution of households' views on impacts during construction

During Construction Impacts – % Households (n=308)						
% Pre	Positively	Negatively	No Effect	No Response	Not Sure	Total
Water quality	5	61	24	6	3	100
Coral Reefs/coastal resources	8	72	14	3	3	100
Noise Levels in George Town	9	57	27	5	3	100
Water Sports (Fishing, Diving, etc.)	11	57	23	6	3	100
Artisanal Fishermen	11	46	32	8	3	100
Cruise tourism	29	42	20	6	3	100
Overnight tourism	23	11	57	6	3	100
Tenderers	21	46	23	7	3	100
Cargo operations	23	38	28	8	3	100
Job Opportunities (locals)	77	6	12	3	3	100
Local Businesses	58	17	16	7	3	100
Cayman's Economy	70	11	12	4	3	100
Caymanians	67	11	13	6	3	100
Non-Caymanians	51	12	26	8	3	100
Visual aesthetics	23	43	24	7	3	100
Traffic	14	66	14	3	3	100
Ship Wrecks	13	46	29	7	5	100
Heritage Sites (monuments, buildings)	19	32	38	6	4	100

Post Construction/Operational Impacts

There were some shifts in the views on impacts in the post construction/operations phase of the proposed project, compared with those expressed for the construction phase (Table 4.25). Overall impacts were believed to be more positive than negative averaging 42% and 21% respectively. A

number of receptors that were believed to be negatively impacted during the construction phase were thought to no longer be impacted post construction. These included water quality, noise levels, water sports, and artisanal fishermen with the change being marginal for artisanal fishermen. Cruise tourism, cargo operations and visual aesthetics are believed to be more positively impacted post construction while there is a slight (2%) shift in the percentage believing that overnight tourism would be positively impacted versus not impacted. Respondents believe that coral/coastal resources, traffic, tender operators and ship wrecks would continue to be negatively impacted during the post construction/operations phase of the project.

Table 4.25 Percent distribution of households' views on impacts post construction/operations

Post Construction/Operations Impacts – % Households (n=308)						
% Post	Positively	Negatively	No Effect	No Response	Not Sure	Total
Water quality	11	34	42	9	4	100
Coral Reefs/coastal resources	10	51	27	9	4	100
Noise Levels in George Town	16	25	47	9	3	100
Water Sports (Fishing, Diving, etc.)	29	28	30	9	3	100
Artisanal Fishermen	21	31	33	11	4	100
Cruise tourism	73	5	12	7	3	100
Overnight tourism	42	6	40	8	4	100
Tenderers	26	51	11	9	3	100
Cargo operations	50	10	29	8	3	100
Job Opportunities (locals)	69	6	12	9	3	100
Local Businesses	76	3	9	9	3	100
Cayman's Economy	79	4	6	8	3	100
Caymanians	71	7	10	8	3	100
Non-Caymanians	60	7	20	9	3	100
Visual aesthetics	52	12	21	11	4	100
Traffic	24	48	14	11	4	100
Ship Wrecks	17	36	32	10	5	100
Heritage Sites (monuments, buildings)	28	21	39	9	3	100

Other positive and negative impacts to their neighbourhoods and the Cayman Islands identified by respondents are summarised in Table 4.26.

Table 4.26 Other project impacts identified by households surveyed

Other Impacts – Households (n=308)	
Negative	Positive
Environment (12%)	
<ul style="list-style-type: none"> - Impact to marine life especially coral reefs - Loss of Coastline Protection - Disruption in sediment transport to seven mile beach - Beach erosion - Bigger waves and storm surges - Noise 	
Infrastructure (7%)	Infrastructure
<ul style="list-style-type: none"> - Traffic - “Island is too small to handle large increase in number of visitors” - Over development - Pollution - Structural damage from blasting 	<ul style="list-style-type: none"> - Improved access to land for cruise tourist; improved visitor experience; more efficient visitor processing (6%) - Facelift to George Town waterfront; community boost (2%)
Economic (4%)	Economic
<ul style="list-style-type: none"> - High cost - Increased debt - Employment loss (tender operators) - Loss of tourism from “dead reefs” - Impact on stay-over tourists - Competitiveness of island will decline 	<ul style="list-style-type: none"> - Increase number of tourists (20%) - Economic Growth (20%) - Employment Opportunities including youth (16%) - Increase revenue and incomes (10%) - Boost in local businesses (6%)
Cultural (1%)	
<ul style="list-style-type: none"> - Loss and damage of heritage sites - Structural impact from blasting 	

Direct Impacts

Participants were asked for their view on the potential for the proposed project to have any direct impacts on them and their households. Thirty seven percent (37%) believed that the project may

have direct benefits to them while 60% believed that it would not (Figure 4.13). Direct benefits were largely due to potential employment and business opportunities and improved earnings.

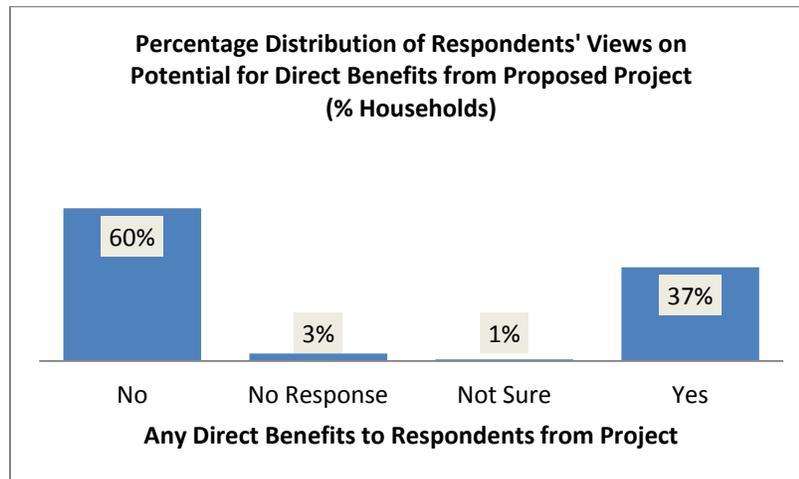


Figure 4.13 Percent distribution of respondents' view of direct impacts from project (% households)

Another potential direct impact relates to respondents' visit to the CBD. An estimated 35% believed that the proposed project would not impact their visits to downtown George Town. Almost 30% cited increased traffic and congestion which may cause delays. Less than 10% noted that they would change the days and time when they visit the area. Other felt they had no choice.

Available Skills

Despite, identifying jobs as a potential benefit, 51% of respondents do not believe that the necessary skills required for the construction and operation phases of the project currently exist within their neighbourhoods (Figure 4.14).

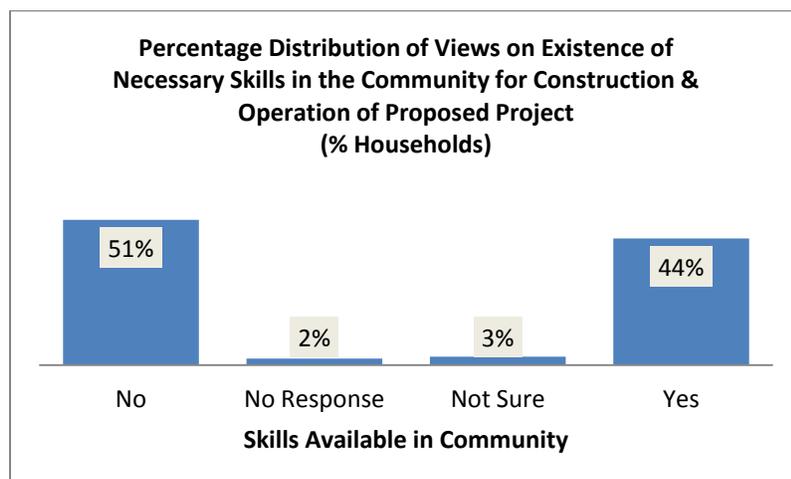


Figure 4.14 Percent distribution of respondents' views on existence of necessary skills within the community for construction and operation project phases

4.7.7 General Comments about Proposed Projects from Households Surveyed

Comments from this stakeholder group were mainly positive, however there were some concerns noted. Several themes could be ascertained from the comments.

1. One theme was a sense of urgency for the project, tied to the potential socioeconomic benefits that may be derived from the project. The following comments reflect this theme:
 - “A well needed facility”
 - “Should have been built 20 yrs. ago. Positive move”
 - “The country need this project to get started now”
 - “Should be completed sooner than later although the airport expansion should be a higher priority”
 - “This would be better because most of the cruise ships are pulling out because the tourist can't get off”
 - “Times have change and we need a better system so things can get better for us
2. Other comments were concerned about opportunities being available for locals.
 - “Caymanians should get a piece”
 - “Hope it brings jobs for Caymanians”
3. A third theme is related to concerns about the location:
 - “Does not necessarily need to be in George Town. Cruise terminal should be away from people trying to do business in George Town”
 - Rather not be in town, relocated
 - “Can't it be done somewhere else”
4. A fourth theme is a potential for negative environmental impacts and the need to explore alternatives to mitigate risks:
 - “Can't it be done without dredging?”
 - “I like the floating pier. Less ecological damages and unique for Cayman are huge plus”
 - “The cost and efficiency of the floating dock proposal must be seriously considered in order to preserve our coral reefs and integrity”
 - “Have any serious consideration been given to a floating deck construction”
 - “It is not necessary. We have thriving tourism and healthy marine life. Why sacrifice for money?”
5. A fifth theme related to the fourth is the view that stay-over tourism should be prioritized over cruise tourism and improving the town:
 - “The airport is more important”

- “I would place airport development as the #1 priority for the Cayman Islands at this moment”
- We don't need any cruise birthing piers. We need to shut off vehicle access there and spend money improving the towns images”

Still other comments express concern about *“the upkeep of the facility such as upkeep cost”*, while others would like additional information before forming an opinion:

- More information is needed. This is a big project with many options for both construction and operation.
- Would like more info to be easily accessible, perhaps official website

5 Summary of Stakeholders’ Perceived Impacts

5.1 Construction

Public perception of project impacts during construction is mainly negative. Stakeholders believe that environmental receptors and groups who are vulnerable due to their dependence on the environment will be negatively impacted. The proportion that viewed construction impacts as negative is higher than those citing positive impacts during construction. Positive impacts identified during construction were jobs and value added to the economy. The main potential negative impacts are:

- Destruction/Damage of the marine environment (coral reefs and ecosystems)
- Pollution (water, air, noise)
- Loss of tender boat operations (loss of service to cruise visitors; loss of jobs and income and benefits to employees)
- Decline in dive operations due to poor water quality
- Loss of business for dive and watersports businesses.
- Disruption in cruise ships calling in GTH due to dredging and construction activities.

5.2 Operations

Stakeholder perception of impacts during operations is generally more positive than negative for non-maritime businesses and households. At the household level, job opportunities, local business opportunities and boost to the local and the national economy were identified during stakeholder engagement.

Long-term environmental impacts, loss of livelihoods, jobs and business for groups such as dive shops, and tender operators were some negative impacts identified.

There will be need for budgetary resources for infrastructural and other planning and development projects that will be needed to support the expected growth in visitor arrivals. This will have negative effects on CIG Departments and other Agencies with limited resources.

6 Mitigation of Stakeholder Impacts

1. Communication with stakeholders and the general public on the potential negative and positive impacts of the proposed project will be very important.
 - a. There were some views that there is insufficient information available on the full scope and potential impacts and benefits of the project.
 - b. Given the socio-economic and socio-cultural significance of the sea to the Cayman Islands, and the potential for negative impacts, it is critical that alternative scenarios (with, without, alternate locations, etc.) be presented in a clear and concise way that is understandable to the public and stakeholders.
 - c. A justification for preferred option and mitigation strategy is also recommended.
2. Several themes that that should be addressed in consultation that emerged from stakeholder consultations are:
 - a. The perception that the project is needed for socio-economic gains and the sense of urgency and some level of frustration with the lengthy decision-making process
 - b. The fear that the benefits derived from the project will not go to locals and those of Caymanian status
 - c. The location of the proposed project; its suitability given current practices in bad weather
 - d. The negative environmental impacts associated with the project
 - e. The perceived potential negative impact on stay-over tourism visiting the Down Town George Town area.
 - f. Resources required for constructing and operating the facility, and the source of funding.
 - g. The sources for funding required for the supporting development required e.g. George Town redevelopment, traffic and pedestrian infrastructure, etc.
3. Should the project proceed, a grievance mechanism will need to be developed at the appropriate juncture.
4. See other measures in the Task N: Socio-economic Section.

7 References

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