



BELIZE TOURISM & CONSERVATION ADAPTATION PLANS AND NATIONAL SUSTAINABLE TOURISM MASTER PLAN UPDATE FOR BELIZE 2030 (NSTMP)

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University of Melbourne Landscape Architecture Program, Hansen Partnership Pty Ltd & the University of Belize

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INTRODUCTION

Belize is an ecologically rich and culturally diverse destination. It features a world heritage coral reef, expansive seagrass beds that are critical to Belize's marine life, and Maya mountains and terrestrial forested habitats, that support globally threatened endangered species such as jaguars and tapirs amongst others. Its Maya history is extensive and regionally significant. So, too, are the vibrant Garifuna and Kriol cultures interspersed with a mix of expatriates who call Belize home. Altogether the fabric of Belize's culture and environment interweaves with deep connections to the wider Caribbean, Latin America and beyond.

Tourism is one of the main drivers of Belize's economy. The sector has been registering steady increases year on year. In 2019, Belize set a record and receiving more than 500,000 overnight tourists, representing more than 50% since 2014. Similarly, the number of cruise passengers has also grown, surpassing 1 million visitors for the fourth consecutive year (Belize Tourism Board – BTB, 2020).

The COVID-19 pandemic which forced the complete closure of international borders led to an unprecedented decline in the tourism sector. While the pandemic's impact appears anomalous, other changes affecting the external environment in which the Belize tourism sector functions, including exogenous shocks occasioned by climate change, new business models in the hospitality and service industry, and technological advancements, present emerging challenges that are relevant to the further and enduring sustainable development of tourism in Belize. These challenges are not included in the current National Sustainable Tourism Master Plan for Belize (NSTMP).

The NSTMP, an initiative supported by the Inter-American Development Bank, was endorsed in 2012 by the Government of Belize. The Plan spans a 20 year period (2010-2030), providing an overarching tourism policy and strategic planning instrument. It encompasses the strategic priorities of the national development plan for the country "Horizon 2030", as

they relate to building a sustainable and responsible tourism product. In addition to the NSTMP, a series of tourism destination-specific development plans have also been elaborated for Corozal, Orange Walk, Dangriga, Placencia, Hopkins, Toledo, the Chiquibul-Caracol Complex, and Caye Caulker, which establish short to medium priorities for these destinations.

The Government of Belize (GOB) has decided to evaluate the adequacy of the NSTMP for Belize in a post-pandemic, and rapidly changing global environment. The evaluation should also address components missing from the NSTMP including a review of the COVID-19 impacts and several climate adaptation and resilience plans for regional areas and selected tourism destinations in Belize. A consultancy involving national and international partners was invited to support the Government of Belize in conducting the evaluation.



Caye Caulker Aerial View. Photo by AJ Felson

From the outset, the GOB set out key parameters for the consultancy:

First, that the GOB remains committed to the 2012 NSTMP.

Second, that there is broad stakeholder engagement and support for same.

Third, that until the master plan is revised for 2030, that there is consensus by the industry to realize the current NSTMP and that the foundation and vision, and macro-framework are relevant.

Fourth, that there are several gaps that would benefit from further analysis and strategic inputs, namely, resilience as a cross cutting factor, health and safety, and broad scale spatial mapping to inform further development.

Responding to this mandate, the consultancy has evaluated what has been completed according to the NSTMP and what remains to be developed in the current plan based on market trends. It has also developed recommendations to address the gaps of the NSTMP, such as temporally relevant spatial plans.

Services included performing a holistic diagnostic of the travel and tourism sector in Belize, considering the potential impact of the COVID-19 pandemic, climate change, technological change, and the role of innovation and entrepreneurship in making Belize a more competitive destination. The performance of these services has included both in person and virtual engagements, involving stakeholders from the public and private sector, ranging from government to industry to community.

The review and update of the Belize National Sustainable Tourism Master plan (2011) commenced in 2022. From July to August 2022, a series of online facilitated workshops were conducted with tourism stakeholders. The workshops and subsequent findings focused on user competency (and familiarity) of existing NSTMP documentation and identification of

significant contemporary issues facing the tourism sector in the early 2020s – noting the term of the existing strategy from 2011-2030. We learned about pertinent strategic, physical planning, and operational issues facing tourism stakeholders (and the sector broadly) today. In January and in July 2023, we travelled across the entire country, focusing on regions of tourism and destinations. During these periods, we held in-person stakeholder meetings and conducted follow-up meetings with target areas where we developed regional and site plans.

The present report provides an update to the National Sustainable Tourism Master Plan. The first part of the report details the update to the NSTMP. The second part focuses on adaptation planning, governance, and tourism indicators. Our documentation and review of the existing NSTMP documents from 2012, and our workshop process and finding , are provided in separate reports.

Altogether, the results of this consultancy are intended to inform the development of the 2030 NSTMP. More generally, it is intended to contribute to the sustainable development of the tourism sector in Belize, which can further the country's sustainable growth and resilience, enhance its international competitiveness, and importantly, contribute to national efforts for the reduction of poverty and inequality.



Road to Caracol Natural Monument Reservation. Photo by AJ Felson

METHODOLOGY

The development of the NSTMP hinged on a combination of robust data collection and active stakeholder engagement. We recognized that stakeholder involvement would play a pivotal role in ensuring the successful implementation of the NSTMP, which necessitated close collaboration, local co-design efforts, and direct participation.

In pursuit of these goals, we forged a meaningful partnership with the University of Belize. This collaboration was instrumental in facilitating our engagement with the university's staff. We maintained a participatory approach throughout the process, allowing stakeholders the opportunity to review our steps and partake in the analysis and conclusions. We sought to create a platform for the open discussion and application of stakeholder insights to shape the NSTMP's update and planning process.

Our consultancy unfolded in two distinct phases. Phase One encompassed a comprehensive analysis and peer review of the work plan, a diagnosis of the travel and tourism sector, an evaluation of tourism governance, GIS coordination, and an assessment of climate change impacts. In Phase Two, our efforts extended to vision evaluation, competitive destination assessment, the development of spatial action plans, and the updates to Belize's NSTMP. This phase also involved two trips to Belize, involving extensive engagement with local and regional stakeholders, visits to remote areas of the country, and consultations with planning offices and town councils.

Throughout the project, we worked with BTB, Praxi5 and the University of Belize to plan targeted meetings with our client and stakeholders at key junctures. Our services encompassed a brief diagnostic of the Belizean travel and tourism sector, considering ramifications of the COVID-19 pandemic, climate change, technological advancements, impacts on women and youth, gender equality considerations, and the pivotal role of innovation and entrepreneurship

in enhancing Belize's competitiveness as a tourist destination. We conducted an analysis of tourism governance and harnessed GIS mapping to inform our priority recommendations and Phase Two action planning.

Phase 1: Diagnostics

1.1. *Preliminary Diagnostic Studies (separate report).*

The team conducted a diagnostic study of the existing sources, past studies, and other documents that could nurture the NSTMP update. This desk review provided the initial inputs and guidance for reviewing and updating the NSTMP.

Deliverable 1: The work plan (separate report)

Deliverable 2: A summary report of relevant documents with a brief overview of each document and its relevance to Belize as a destination. As part of this stage, the team organized a shared folder system, conveying data, information and resources with the client.

1.2. *Tourism Governance Analysis (Chapter 5).*

The team evaluated and prepared supporting recommendations focusing on tourism governance assessment, analysis, and organization. This included policies and regulations, practices, networking, and communication, as well as destination management structures and other tourism components.

Deliverable 3: Five (5) Charts and support text and materials focusing on Stakeholder Mapping, Policy Mapping, Governance Assessment, Product Development and Assessment and tourism marketing.

1.3. *GIS Coordination and Climate Change Impact Assessment around GIS and spatial data assessment*

and spatial planning principles (Chapter 4).

The team reviewed existing layers provided by the client to support developing a GIS-formatted map to establish a working base map for Belize. The map informed additional layers for Phase 2 diagnostics as well as serving as a preliminary tourism base plan for mapping and analysis as part of Phase 1. The team created a legible base map.

Deliverable 4: Inventory (GIS formats as shapefiles or kmz) of the current layers provided by the client and the creation of a base map. Development of a list of broad principles relevant to spatial planning and tourism under climate change scenarios to guide the GIS-based spatial assessment of Belize to identify priority locations for Phase 2.

Phase 2: NSTMP 2022 Update & Recommendations

1.4. National Tourism Vision Evaluation and focused Workshops (In a separate Report).

We ran three (3) half-day workshops with the BTB. The scheduled workshops focused on key destinations spatially defined across Belize. Each event was tailored in terms of attendees in tandem with BTB with personnel from industry, agencies, and related technical inputs. Feedback informed priority development for renewed products (sequence of attractions/connected circuits/new sectors and destinations/hierarchy of activities). This feedback served as the foundation for an indicative 'spatial' framework that represents the vision, including key destination areas, corridor connections, exclusion/sensitivity zones and related systems.

Deliverable 5: A Report of feedback and outcomes from the workshop, and an analysis of the product development considerations and contemporary target considerations. Where feasible, the concerns and

issues raised in the workshop were translated into spatially defined factors that can inform preliminary framework planning.

1.5 COVID impacts, opportunities, and risks.

The firm organized five (5) Zoom meetings with individuals in the tourism industry to gather information informing a rapid impact assessment of the COVID 19 pandemic on the Belize tourism system with a particular focus on the tourism enterprise and workforce ecosystem.

Deliverable 6: Report identifying the current and potential impact of the COVID-19 pandemic on the tourism sector in Belize and recommendations.

1.6 Assessment of the competitive advantages of tourism focusing on determinants, destination policy, planning and development, destination management, as well as core resources and attractors (Section 6).

Building on the "Destination Competitiveness Assessment" (DCA) for Belize, (emphasizing innovation and investment), we developed a report assessing the effectiveness in selected categories since the NSTMP was enacted.

Deliverable 7: The team developed a draft performance chart of the NSTMP over the last decade specifically analyzing the DC indicators (based on the NSTMP 2011), including a brief review of each indicator. This analysis was developed in conjunction with the workshops and through additional interviews, discussions, and informal communication.

1.7 Spatial Action Plans and Implementation priorities: Develop a country-wide GIS base map for tourism spatial planning.

The team used existing layers provided by the client

to develop a legible base map. The mapping and evaluation with data provided by the client, supports BTB's moving towards an effective evaluation of factors of attraction and production and Belize's tourism infrastructure, including resources such as transportation issues and conservation issues.

Deliverable 8: Countrywide maps were developed with priority zones and other tourism considerations, including infrastructure and conservation land using GIS-formatted shapefiles/kmz layers from the client.

1.8 Three (3) GIS based action plans for tourism destinations targeting climate change adaptation.

Deliverable 9: Generated three (3) maps for the overall country of Belize, including current conditions map, 2050s map and 2100s map showing predicted flooding and highlighting gaps in spatial data that could inform climate adaptation (layers might include habitats, conservation land, hydrology, highways, and land use change, urbanization, infrastructure, tourism nodes and connecting tourism corridors). As part of the Atlas, we zoomed into seven (7) tourism destinations (Northern Belize, Northern Islands, Central Coast Belize, Western Belize, South-Eastern Coast, Southern Belize, Offshore Islands) and set up preliminary base maps highlighting key areas where climate change impacts on the tourism industry exist or are likely to occur in Belize. We provided a brief report highlighting recommended data and mapping analysis to support ongoing and future planning. From this report, we developed a Priorities Investment Areas List.

1.9 Three (3) training sessions with the University of Belize and BTB evaluating data needs and opportunities for data acquisition.

The team organized a series of three targeted 2-hour training sessions focusing on case studies and technical applications, as well as data needs and

spatial mapping options to support developing more robust GIS data for the 2030 master plan.

Deliverable 10: Three (3) 2-hour sessions

1.10 Developed a list and spatial map of implementation priorities based on the dialogue around the three action plans.

This step identifies implementation priorities based on major potential impacts of the tourism sector to climate change, and vice versa. Based on the existing information and mapping used by the GOB and made available to the team, we generated a set of implementation priorities. These prioritised are spatially mapped to support future adaptation planning strategies to minimize the negative impact of climate change on tourism.

Deliverable 11: Developed spatial GIS maps of implementation priorities and a priority investment list in the appendix for the period 2022-2030. These product development and investment recommendations remained conceptual with the intention of seeking additional funds for further development. A validation session with tourism stakeholders was conducted after submission of the final draft

1.11 Belize NSTMP 2023 Update. After completion of the analysis, the team organized a summary of sections to complement the existing Belize NSTMP and update this living document.

Half-day workshop to review the draft final Summary Appendix Document with selected stakeholders. Feedback from this meeting was used to inform the final document

Deliverable 12: An appendix report that summarizes the findings to date, and provides a draft performance report of the NSTMP since 2012.

SCHEDULE AND DELIVERABLES

Deliverables	Mar 9 - Apr 8			Apr 9 - May 8				May 9 - June 8				June 9 - July 8				July 9 - Aug 8				Aug 9 - Sep 8				Sep 9 - Oct 8				Oct 9 - Nov 8				Nov 9 - Dec 8				Dec 9 - Jan 8					
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42			
PHASE 1																																									
Analysis & Peer Review																																									
1. Section A (Work Plan)																																									
Start-up session for contract																																									
Development of work plan																																									
2. Section B: Diagnostics																																									
Review of Documents																																									
Summary report																																									
3. Section C: Tourism Governance Analysis																																									
Stakeholder Mapping and Analysis Chart																																									
Policy Mapping and Analysis Chart																																									
Governance Assessment Chart																																									
Organizational Chart																																									
Tourism marketing practices and development																																									
Governance Analysis Report																																									
4. Section D: GIS Coordination And Climate Change Impact Assessment																																									
Belize GIS inventory and preliminary Base map																																									
PHASE 2																																									
NSTMP 2022 Update & Recommendations																																									
5-6. Section E: Vision Evaluation																																									
Five (5) half day workshops																																									
Report of workshop feedback and outcomes																																									
Five (5) meetings with tourism industry on COVID 19																																									
Report on COVID pandemic impacts on tourism																																									
7. Section F: Competitive Destination Assessment																																									
Comparative Assessment Report																																									
8-11. Section G: Spatial Action Plans, Implementation Priorities, and Training																																									
Country-wide GIS tourism spatial planning maps																																									
Develop three GIS based action plans																																									
Run three training sessions on GIS																																									
List of implementation priorities																																									
Spatial action plan & implementation priorities report																																									
12. Section H: Belize NSTMP 2022 Appendix																																									
Appendix report																																									

The deliverables for this assignment included:

Actions	Description
1.	Work Plan
2.	Summary report of relevant documents
3.	Preliminary Charts and support materials focusing on Stakeholder Mapping, Policy Mapping, Governance Assessment, Product Development and Assessment, and tourism marketing
4.	Inventory (GIS formats as shapefiles or kmz) of the current layers provided by the client and the creation of a base map and list of broad principles relevant to spatial planning and tourism under climate change scenarios to guide the GIS-based spatial assessment of Belize to identify priority locations for Phase 2
5.	A report of feedback and outcomes from the stakeholder workshop, as well as an analysis of the product development considerations and contemporary target
6.	A report identifying the current and potential impact of the COVID pandemic on the tourism sector in Belize and recommendations
7.	A draft performance chart on the performance of the NSTMP 2023 update relative to previous NSTMP
8.	Countrywide map with priority zones and other tourism considerations, including infrastructure and conservation land-marked (GIS formats as shapefile or kmz) with layers provided by the client
9.	Three (3) maps for the overall country of Belize including a current conditions map, 2050s map and 2100s map showing predicted flooding and highlighting gaps in spatial data
10.	Three (3) two (2) hour sessions evaluating data needs and opportunities for data acquisition
11.	A list and spatial GIS maps of implementation priorities and preliminary recommendations and priority investment list
12.	An appendix report that summarizes the findings to date and provides a draft performance report of the NSTMP since 2012

The design team also made two trips, including traveling country-wide and meeting with stakeholders, as well as a trip focused on adaptation planning and critical infrastructure coordination with towns and government.



PART 1

DESTINATION COMPETITIVENESS REPORT

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Figure 2: DCA Indicator: Core Resources and Attractors - Culture and History

Figure 3: DCA Indicator: Core Resources and Attractors - Market ties

Figure 4: Monitoring and Evaluation, Marketing – Favorable Consumer Reactions

Figure 5: General NSTMP Indicator – Average Spending Per Tourist

1 ABBREVIATIONS

BCO	Belize Crime Observatory
BTB	Belize Tourism Board
CBB	Central Bank of Belize
CCI	Comparative Competitiveness Indicators
DCA	Destination Competitiveness Analysis/Assessment
GDP	Gross Domestic Product
GOB	Government of Belize
MSDCC	Ministry of Sustainable Development, Climate Change & Disaster Risk Mgmt
NPAP	National Protected Areas Plan
NPAS	National Protected Areas System
NSTMP	National Sustainable Tourism Master Plan
PIM	Project Implementation Manual
SIB	Statistical Institute of Belize
UB	University of Belize
VEMS	Visitor Expenditure & Motivation Survey
\$	Unless otherwise specified, all currency is in Belize Dollars. Exchange rate: BZ \$1.00 = US \$0.50 or US \$1.00 = BZ \$2.00

2 EXECUTIVE SUMMARY

The Terms of Reference required, inter alia, a review of the DCA model by Ritchie & Crouch (2003) and, thereafter, an assessment of the DCA indicators used in Belize's NTSMP 2011 and subsequently updating those indicators. Destination competitiveness can be measured both quantitatively and qualitatively. The Ritchie & Crouch model, widely acknowledged to be among the foremost authorities on this topic, has over thirty indicators under five broad subject areas

At present, Belize only collects data on a fraction of those indicators. In some instances, such as tourism expenditures, the data that Belize does collect is regarded as an undercount, which occurs because of the non-local ownership structure of a significant portion of Belize's tourism assets coupled with the modes of payment by the tourists, resulting in acknowledged leakages such that only a fraction of the tourists' actual expenditures is reflected in the national data presently compiled and presented.

While quantitative tourism data for Belize, such as tourist arrivals, average length of stay, percentage hotel occupancy, are collated and published at defined intervals, qualitative data, such as visitor expenditure motivation surveys, is collected less frequently. Furthermore, such qualitative data must be considered as incomplete as data gathering does not occur at all entry points or at all major attractions. A first major recommendation is to broaden the coverage of the VEMS and simplifying the instrument such that its key components can be administered at an increasing number of tourism site attractions. Broadening the coverage of the VEMS can facilitate capturing emerging market trends and changes in the patterns of behavior of tourists. It would also assist in capturing cross-border traffic.

There is also a need to accurately measure Tourism's contribution to Belize's Gross Domestic Product. As presently compiled, tourism is indirectly measured via a focus on specific activities in the tertiary sector, the largest contributor to GDP. At the end of June of 2022, the Statistical Institute of Belize upgraded its GDP compilation methodology, and the result was an overall increase in GDP by an average of 25 percent. The actual increase in the specific activities that constitute "Tourism" is yet to be officially released

Finally, given the reality of climate change and the fact that some 60 to 70 percent of the country's tourism assets are located near the coast, an indicator that merits attention is the effect of climate change on these assets in particular and the industry in general. Climate change effects include, but are not limited to, sea level rise, coral bleaching and impacts on biodiversity. While national indicators to measure these effects already exist, they are not necessarily site specific. A main challenge is therefore to develop site specific SMART (Specific, Measurable, Achievable, Relevant, Time-bound) indicators such that, for example, the effect of sea level rise can be measured at a given destination.



Belize City Harbour, Belize. © Adeliapenguin/Dreamstime.com

3 INTRODUCTION

The National Sustainable Tourism Master Plan (NSTMP) outlined four strategic goals aimed at guiding strategies to enhance Belize's standing as a tourism destination: Leadership, Optimization, Sustainability, and Competitiveness (NSTMP Executive Summary, 2011). The Consultant's work primarily revolves around the fourth goal, Competitiveness. Competitive and comparative advantages underpinning these objectives converge to shape a competitive and sustainable edge within Belize's tourism sector across five key tourism Competitiveness categories: Qualifying and Amplifying Determinants, Destination Policy, Planning and Development, Destination Management, and Core Resources and Attractors. The Consultant will evaluate Belize's progress in achieving NSTMP's strategic goals within these categories since the plan's implementation (Consultant's TOR, 2022).

During the formulation of NSTMP, Belize was already recognized for its diverse natural resources, offering comparative advantages in various tourism products tailored to multiple niche markets. These encompassed nature-based tourism, cultural tourism, cruise tourism, and sun and beach tourism, among others (NSTMP, 2011). However, specific areas requiring enhancement were identified to boost Belize's competitiveness in these domains, particularly concerning policy and regulatory environment, business infrastructure, resources, and commercialization. For instance, in the realm of resource indicators, improvements were sought in literacy rates (indicative of the quality of the tourism workforce), employment rates (indicative of the quantity of the tourism workforce), management of UNESCO cultural World Heritage and Natural Heritage sites, and other resource-related deficiencies

Belize's current progress in addressing these identified areas for improvement and achieving NSTMP goals will be assessed in relation to the plan's enactment. The evaluation will be conducted using the Destination Competitive Assessment (DCA) framework, which encompasses the five tourism competitiveness categories. This framework, designed by J.R. Brent Ritchie and Geoffrey Crouch in 2003, was partially adopted by the NSTMP formulators to structure the master plan based on the DCA model's five categories and 36 indicators, thereby determining the attributes of a robust and sustainable competitive tourist destination.



St Herman's Blue Hole National Park, Cayo District, Belize. Source: <https://www.belizehub.com/st-hermans-blue-hole-national-park/>

4 DESTINATION COMPETITIVENESS MODEL

The Destination Competitiveness Model is used as a starting point by tourism researchers and policymakers to develop and process their models and plans (Papp and Raffey, 2011). It can be used to measure the effectiveness of a country's destination competitiveness. The original model was designed by J. R. Brent Ritchie and Geoffrey Crouch and published in their 2003 work, "The Competitive Destination: A Sustainable Tourism Perspective". It is the most comprehensive tourism competitiveness model to date, and draws on Michael Porter's Diamond of National Competitive Advantage Framework (1990) to identify the determinants of tourism competitiveness along seven major components. These components fall under the superstructure of Comparative advantages (resource endowments and resource deployments).



Maya Chocolate Making, Toledo. Source: AJ Felson

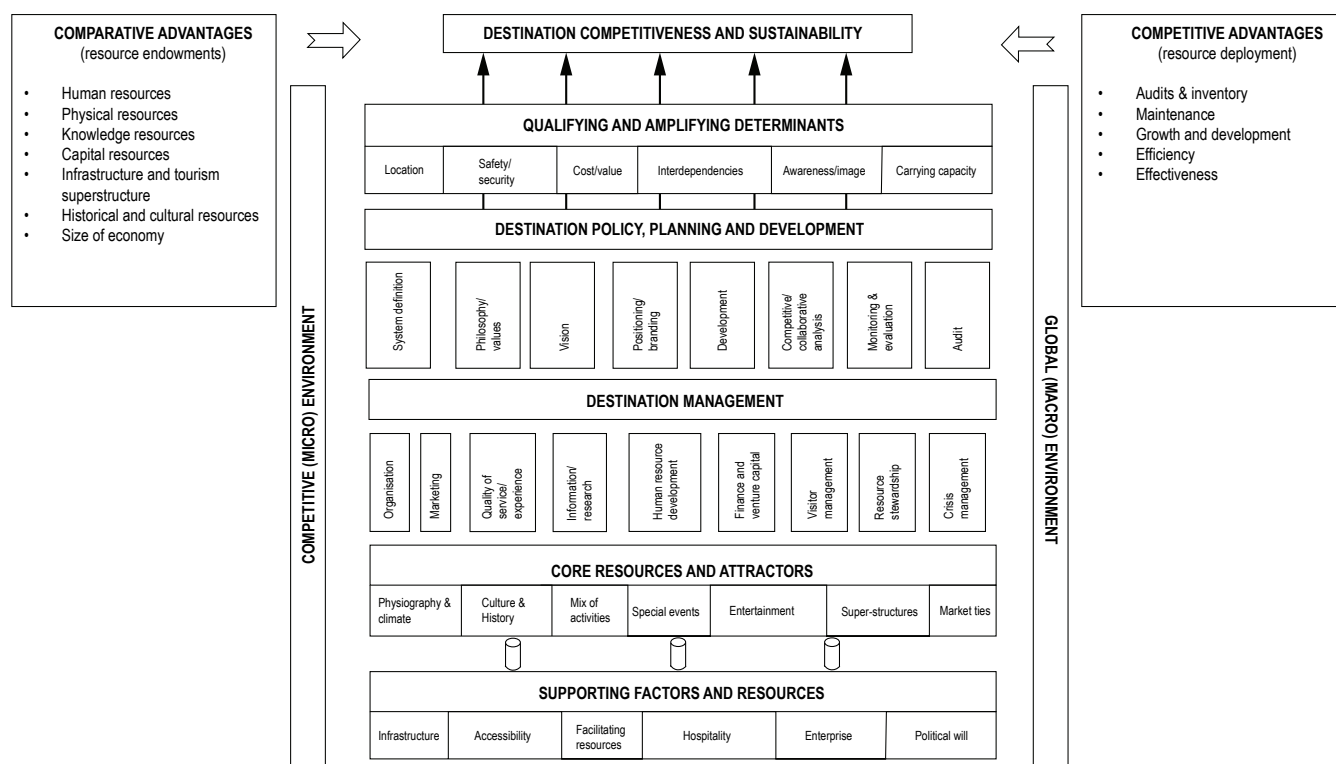


Figure 1: Destination Competitiveness Model by Ritchie and Crouch redrawn from Viljoen, A., & Saayman, M. (2018). A critical assessment of Africa's growth potential as a global competitive tourism role-player.

Comparative advantages from resource endowments equate to assets that occur naturally in the country and allow it to offer a range of tourism products. Belize is endowed with natural comparative advantages that support its tourism products. These comparative advantages include an extensive protective areas reserve system (marine, archaeological, forest, and land reserves), historical and cultural resources (excavated and unexcavated Maya sites, and multiple ethnicities indigenous to Belize), a unique geographical and language advantage (the only Central American country with borders that open gateways to North America, Central America, and the Caribbean, and the only Central American country with English as its official language), and vast flora and fauna.

The competitiveness of Belize's overall tourism product depends on the extent to which Belize effectively and efficiently implements and operationalizes strategies and action plans of the NSTMP, and engages in monitoring, evaluation and control activities consistently. These activities, termed collectively as audit mechanisms, should not only capture data for objective tourism industry measures (number of sites, attractions, occupancy rates, to name a few), but subjective consumer measures (consumer perceptions of sites, attractions, and accommodation capacity, among others) as well. Both measures will provide the feedback necessary for the country to advance a sustainable destination advantage over time.



Lamanai Archaeological Reserve, Source: AJ Felson



Lubaatun Archaeological Reserve, Source: AJ Felson



Altun Ha Archaeological Reserve, Source: AJ Felson

5 REVIEW OF THE DESTINATION COMPETITIVENESS MODEL

This section will first review the components and indicators of the Ritchie and Crouch Model. It will then attempt to connect these components and indicators to those in the NSTMP (2011) and determine the extent to which these indicators captured the competitive performance of the country over the ten-year period (since 2012) since the NSTMP (2011) launch. Available reports from a number of agencies identified in the NSTMP's Project Implementation Management (PIM) as managers of the data collection instruments used to evaluate these indicators will be used to assess performance.

5.1 The Global (Macro) Environment

In open tourism economies such as Belize, changes in the global environment can either help or hurt the achievement of tourism objectives aimed at improving the country's attractiveness to visitors. According to Ritchie and Crouch, given the dynamism of global forces, constant monitoring of global economic, political, technological, sociocultural, ecological, and demographic elements will allow tourism destinations to "anticipate and preempt altering (of) the tourism landscape" (Ritchie and Crouch, 2003). This is where tourism product managers in the Belize Tourism Board (BTB) will play a critical role in the monitoring and evaluation efforts to remain "on the pulse of things."

5.2 The Competitive (Micro) Environment

The competitive environment comprises of entities, forces, and environments within the country that form its internal tourism system. These entities have a more immediate and direct impact on the destination's competitiveness. For Belize, these components include:

1. Suppliers: accommodation providers, tour operators, etc.
2. Customers
3. Internal environment and Culture
4. Public

5.3 Core Resources & Attractors

Ritchie & Crouch Destination Components:
Physiography & Climate, Culture & History, Mix of Activities, Special Events, Entertainment, Superstructure, Market Ties.

The abovementioned factors that form this component of the destination competitiveness model are the fundamentals upon which visitors choose to visit Belize over other destinations. According to the Ritchie & Crouch model, the physical resources of the country, from which the component physiology and climate are derived, significantly define the aesthetic and, conversely, the visual appeal of the destination. It is, therefore, an important decision element for potential visitors. This proffers a challenge to the product management parts of the Belize Tourism Board (BTB), as these entities have no direct control over issues such as climate change and the potential physiographical disruptions and alterations it can bring to the country's physical landscape.

Nevertheless, Belize's physiology and climate are the foundation on which the BTB creatively cultivates local and international perceptions of the country's tourism products. The assets used in this endeavor are managed through the country's Protected Areas reserve systems: The Barrier Reef Reserve, Blue Hole

Marine Reserve, Maya Site Reserves (Caracol, Altun Ha, Lubaantun, Xunantunich, El Pilar, among others), and the Chiquibul Forest Reserve Systems. (IMF Working Paper, 2019). BTB's Project Implementation Manual (PIM) identified the agencies charged to measure this component of the Ritchie and Crouch Destination Competitiveness. The agencies and indicators are shown in Table 1.

DCA Category		Core Resources and Attractors	
DCA Component		Physiology & Climate	
		NSTMP Indicator (s)	
Ministry/Agency/Manager	Component	Description	Report(s)
Ministry of Sustainable Development, Climate Change & Disaster Risk Management (formerly Ministry of Natural Resources)	Sustainable Tourism Development	Data base of tourism resources utilized (e.g. number/miles of natural beaches, Sea water quality, fragile eco systems, Eco system, living land fauna species , living aquatic fauna in Belize, amount of flora species) and identification of limit of acceptable change and consequences	Annual report of Ministry of Natural resources; Report Belize Forestry Department;
		Amount of alerts for having reached the critical limit of acceptable change of the tourism resources:	
		Percentage of Belize territory being categorized as protected area;	
		Amount of reserves (forests, national parks, bird sanctuaries, marine, and archeological).	

Table 1: Equivalent Destination Competitiveness Components and NSTMP Indicator(s)

The PIM states under each indicator in the above mentioned destination competitiveness indicator the projected targets for the years 2015, 2020, 2025, and 2030, with the frequency of said reports (with the exception of the review of the updating of the databases of tourism resources utilized every five years) being every year. In 2015, the then-named Ministry of Forestry, Fisheries, and Sustainable Development produced the National Protected Areas Plan (NPAP) which contained an updated portfolio of protected areas of 103 protected areas within the National Protected Areas System (NPAS). The baseline study preceding the NSTMP 2011 had the number of protected areas under the NPAS at 102. This indicates the NSTMP (2011), which had aimed to increase the number of protected areas by approximately 2.4 percent (from 22.6% - 102 protected areas to 25%) in 2015, had only increased the number of protected areas by one, or 0.9 percent. (N.B.: the NPAS did not explicitly state the additional protective area).

With respect to the annual reports arising out of the Ministry of Natural Resources and the Forestry Department, none have been made publicly available on their respective websites. However, a perusal of PACT's website states that the current state of affairs for protected areas and resources as noted in Table 2 below.

NSTMP Indicator	Baseline (Y2010)	Target (Y2015)	Target (Y2020)	Actual (Y2022)	Change (from baseline) '+' or '-'
Percentage of Belize territory categorized as protected area	22.6% (102 protected areas)	25%	28%	22.8% (103 protected areas)	-5.2%
Amount of Forest Reserves	19	19	20	21	+2
Amount of National Parks	17	17	18	18	+1
Amount of Bird Sanctuaries	7	7	8	15 ²	+8

Table 2: Core Resources and Attractors: Physiology and Climate; Sustainable Tourism Development

Ritchie and Crouch also state that the culture and history of a tourism destination are additional enhancer to its tourism product (in Belize's case, the cultural tourism product). While it can be argued that very little, if any, attempt should be made to change or alter the sanctity of a destination's culture or history, Ritchie and Crouch underscored the value of a unique yet multifaceted culture and history as a destination attractor and a pillar of competitive advantage.

The Diagnostic of Tourism in Belize conducted by BTB as a precursor to the NSTMP in 2010 confirms the country has competitive advantages in this dimension. At the inception of the NSTMP, there were at least twelve cultural and historical numbered attractions, categorized as heritage sites. As at 2019, the number is at 14, indicated two additional sites have been developed (NSTMP Indicator Maya Sites Integral Development) since the inception of the NSTMP.

At the genesis of the NSTMP, objective measures of development of Belize's cultural products included:

- Maya Sites Integral Development
- Miles of road improvements to implemented projects / paved roads in a 30-mile radius of cultural tourism sights
- Improvement projects / paved roads / trail accessibility of cultural sites

To date, Belize has the Museum of Belize, an art and history museum (NICH 2022), which has multiple upgrades to its structure and design, and has been completed since 2015.

Other elements of culture and history relate to the satisfaction ratings given on the VEMS by tourists. The VEMS questionnaire seeks information on the kinds of places visited. The places are: archaeological sites, historical sites/museums and cultural event. The last published statistics on the numbers of tourist visitors to protected areas was published in 2019. Figure 2.

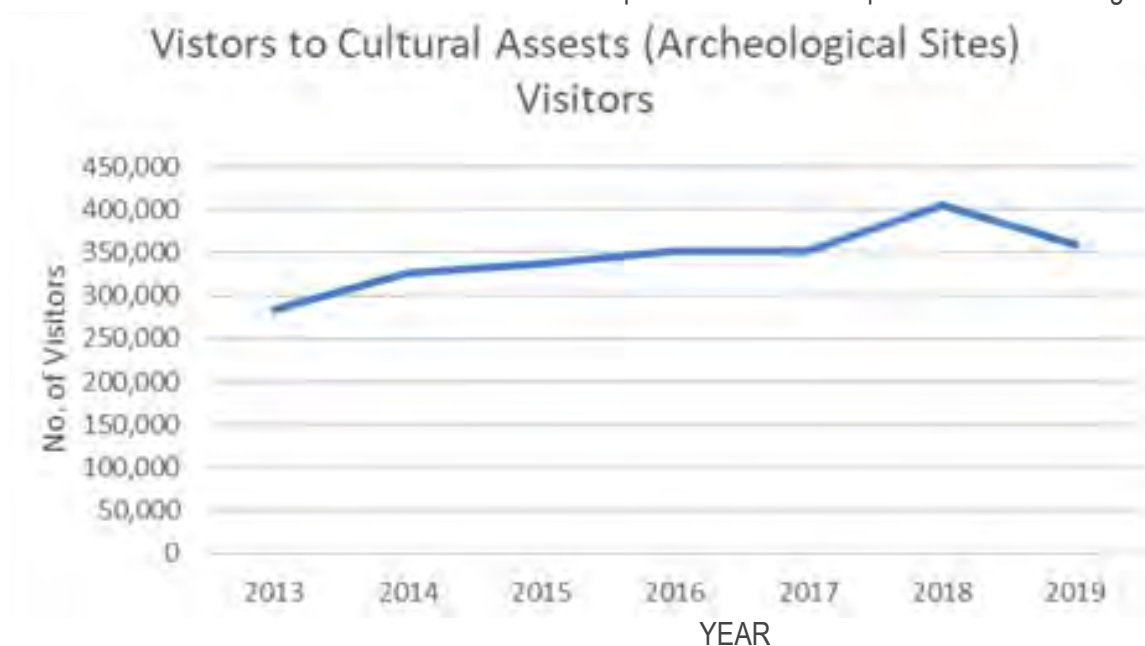


Figure 2: DCA Indicator: Core Resources and Attractors - Culture and History

Regarding the market ties component of destination competitiveness, it is the strength of the “ties” or attachments visitors have to the tourism destination that creates what Ritchie and Crouch calls “enduring linkages for building systematic and predictable flows to a destination.” These attachments translate into steady and sustained flows of visitors over time. In other words, when tourists are “visiting friends and relatives”, or attending cultural (September celebrations, ‘Nineteenth’ celebrations, to name a few), religious (spiritual summer camps), or sporting (La Ruta Maya) events, or education, there will be regular visits to the destination. It is important to note that the steady flow of familial visitors is not necessarily the most profitable or the largest compare to visitors who arrive at the destination for reasons of leisure. However, Ritchie and Crouch suggest that family and friendship ties build business ties, which opens the way to various forms of economic development.

The Belize Tourism Board’s Visitors Expenditure, Motivation and Satisfaction survey asks visitors specifically about their main purpose for visiting the country, with the following options:

- Vacation/Leisure
- Wedding/Honeymoon
- Business/Official
- Visiting friend(s)/Relative(s)
- Religion/Health/Education
- Other

With specific attention to the fourth bullet, “visiting Friends/Relatives (VFR)” the trend of overnight tourists identifying this as their main reason for visiting Belize peaked between 2016 and 2017 (a high of 72,903). However, the number of VFRs has sustained a sharp decline since, most significantly in the two years prior to the onset of the COVID-19 pandemic in 2020 (Figure 3).

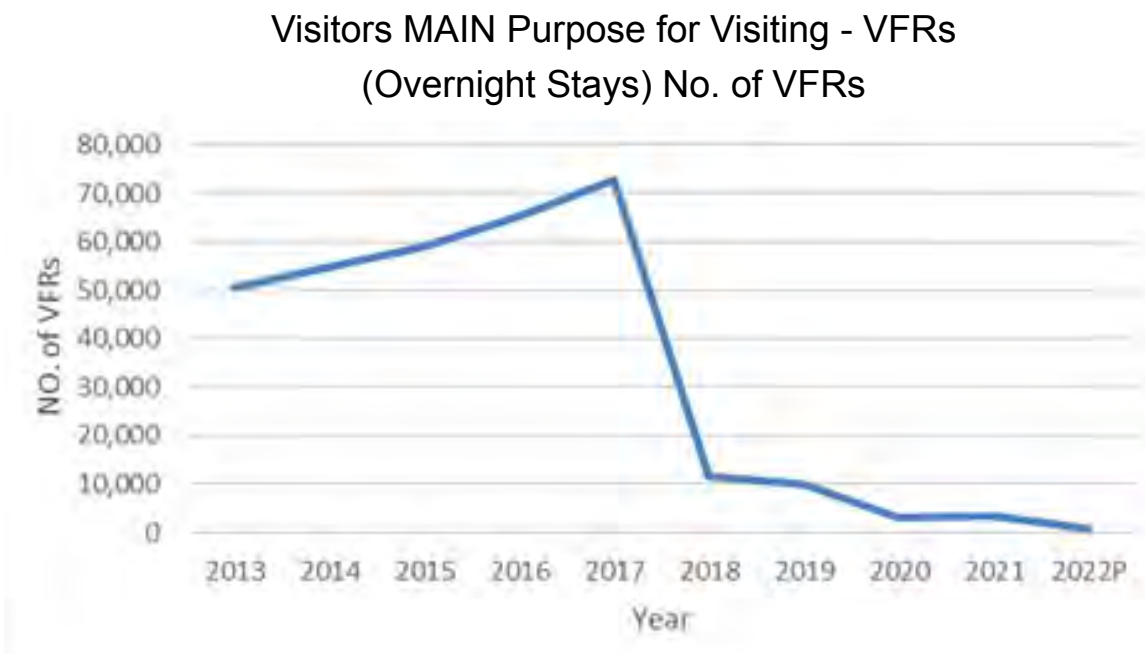


Figure 3: DCA Indicator: Core Resources and Attractors - Market ties

The mix of activities within a destination represents the range of experiences the visitor can have. The more options and diverse these activities are, the more the destination appeal is enhanced.

Ritchie and Crouch noted the mix of activities category had grown in importance as travelers continually seek activities that have them active and engaged with the uniqueness of the destination. For the product managers of the Belize Tourism Board, the challenge remains how to creatively use the natural comparative advantages held by the country in its local physiology and culture without sacrificing what brings value to these elements.

Special events extend the mix of activities by creating what can be termed ‘happenings’ around holidays, commemorative days, sporting, cultural, and even religious activities. Examples of ‘happenings’ in Belize include local festivals to capitalize on the unique aspects of the culture in specific districts and villages in Belize. Examples include the various lobster festivals, the tacos festival, the Garifuna Settlement Day events and the recent international “mega” events such as the International Music and Food Festival.

The tourism superstructure is another element where the BTB can exert some amount of control. This element comprises “accommodation facilities, food services, transportation facilities, and major attractions that many view as the ‘tourism industry’” (Ritchie and Crouch, 2003). Belize possesses a broad and natural diversity of assets, therefore making different aspects of tourism - ecotourism, agrotourism, and adventure tourism, and others - a significant part of its offering.

The country’s rich historical background is reflected in numerous Maya heritage sites. Its many cultures, including Mestizo, Maya, Kriol, Garifuna, Mennonite, and others, provide a unique opportunity for visitors to experience multicultural diversity coexisting peacefully. Furthermore, its geography and paved road network facilitate convenient access and easy visitor movement.

5.4 Destination Policy, Planning, and Development

Ritchie and Crouch Destination Components: System definition, Philosophy/Values, Vision, Positioning/Branding, Development, Competitive/Collaborative Analysis, Monitoring and Evaluation, and Audit.

The planning and development of a competitive destination are created within a strategic policy framework that guides the overall direction of tourism development. However, before the formulation of this framework, there must be a substantial unison of minds among various stakeholders involved in the process on which entity or entities the strategy is to be developed. This, in essence, is what is involved in the system definition of that destination; before stakeholders can agree on what is to be done and how it is to be done, there must be agreement on the entity (ies) involved in defining the structure and scope of the system.

The current policy framework for tourism is based around the 2017 National Tourism Policy that reiterates the ethos of the NSTMP, as well as a 2023 update to the Cruise Tourism Policy. There is also a Nautical Tourism Policy being envisaged.

Crafting what Ritchie and Crouch call a “strategic, policy-driven framework” will bring multiple philosophical perspectives with social, economic, political, and environmental values embedded within them. Therefore, it becomes critical for a common philosophy (Ritchie & Crouch, 2003) that balances the aforementioned concerns and is reflected in the long-term vision for the development of the destination. This does not necessarily mean appeasement of the aforementioned stakeholder concerns but instead having a prevailing philosophy that captures the cornerstones of sustainable destination development (especially for Belize) while ensuring the philosophy fits the context of the destination.

The destination vision presumes the formulation of a strategic plan for the destination. The vision, therefore, builds on the understanding of the common philosophy and projects the destination’s future state within a time-bound target (10 years or more). It follows that this vision be well-articulated, stakeholders contribute in some degree to the development of the vision, and, very importantly, support it. The vision should clearly define what the destination should be in the future when its development is aligned with the common philosophy.



Rio On Pools, Mountain Pine Ridge Forest Reserve, Cayo District, Belize.

Source: <https://www.cahalpech.com/topics/rio-frio-cave/>

Notwithstanding the grounding of a sound strategic policy, the tourism destination framework must arise from thorough audits of the destination’s existing tourism resources, availability, and the quantity and quality of those resources. Clear answers should be revealed regarding the most significant of the destination’s attractors (services, facilities, and experiences) and the gaps between what they should be and how they currently are. Historical data (if existent) on visitors’ perception of the adequacy of these significant attractors and their appreciation for them, while subjective, would be critical material in the audit exercise.

Additionally, and most significantly, identified gaps in tourism product offerings should glean the destination’s position versus its closest competitors (which, for Belize, would be its Central American and Caribbean counterparts). In marketing, positioning is about perception; how do visitors to the tourism destination perceive the uniqueness of the attractors, and how does that perception influence the decision to visit? Therefore, regarding destination positioning, the questions become, “How do consumers in different tourism market segments presently perceive the destination in question against other destinations?” “Which market segments are most valuable and, therefore, must have clear and attainable target market strategies?” and “How effectively will these strategies reposition the destination and enhance its appeal as one of, if not the primary “ideal” place to visit?” Based on the completed NSTMP in 2011, the target market segments for Belize are cultural, nature-based, sun and beach, cruise, nautical, and leisure and entertainment.

The competitive/collaborative analysis would be similar to positioning and the preceding discussion, the audit. The former flows from positioning concerning visitor perceptions regarding the desirability of the destination on a trip versus going somewhere else, as well as the extent of their preferences for the amenities that avail themselves to more prominent destinations (mass facilities, services, and experiences). Measuring these perceptions would naturally form a part of the audit exercise, which will evaluate how the destination actually “measures up” against competing destinations.

Destination policies require long-term development plans on the micro and macro levels. For example, destination plans for Belize exist for specific districts and municipalities such as Caye Caulker, Cayo, Corozal, Dangriga, Hopkins, and Placencia, among others. These plans, of course, connect to the overall

vision of the destination, Belize. The destination plans must be integrated into the destination’s system structure and consistently translate into reality on the ground (pleasant visitor experience, developed facilities, and well-laid-out programs and services for visitors).

Regarding monitoring and evaluation, a rigorous and regularized system of assessing (at the very least) the tourism product(s) performance and visitor satisfaction must be enabled. In reality, how effectively and impactfully the strategy policy-driven framework is working necessitates the formalization of a consistent monitoring and evaluation system. Most crucially, the monitoring and evaluation system reveals the degree to which strategies are achieving the desired outcomes of the strategic policy-driven plan and how well the plan is being implemented. Belize’s NSTMP serves as the strategic policy-driven framework referred to in Ritchie and Crouch’s work.

Percentage of Travelers That Would Recommend Belize



Figure 4: Monitoring and Evaluation, Marketing – Favorable Consumer Reactions

5.5 Qualifying and Amplifying Determinants

Ritchie & Crouch Destination Components: Location, Safety/Security, Cost/Value, Interdependencies, Awareness/Image, Carrying Capacity.

This component represents qualifiers and amplifier that augment or improve destination competitiveness. Ritchie and Crouch go as far as to say is the “ceiling” to tourism demand and potential, yet beyond the capacity of the tourism sector to address directly.

For example, when it comes to the issue of safety and security, this is a powerful factor in determining the choice of destination. Abraham Maslow’s Hierarchy of Needs Theory confirms that physiological (need for food and shelter) and safety needs are basic motivational forces behind human behavior and, therefore, choice. The more concerns visitors have about crime and the quality standards of food and medical services, the more it alters the positioning of tourism destinations and, therefore, competitiveness. It is, therefore imperative for tourism agencies to at least use the basic statistics collected from law enforcement agencies and medical facilities to track the incidences of crimes committed against tourists, tourists who seek medical attention and the causes for this, and specific information on tourist perceptions of the safety of the country, socially or otherwise.

While there exists a broad range of updated data on crime in Belize on the website of Belize’s Crime Observatory, <https://bco.gov.bz/>, statistics do not seem to be collected on the following under the Safety and Security Standards NSTMP indicator:

- Cases of tourists experiencing food poisoning during their stay (overnight tourists).
- Hygiene perception of the international tourist of tourism services and facilities consumed.
- Hygiene perception of international tourism industry of Belize’s tourism services and facilities (including cruise liners).

The Visitor Expenditure and Motivation Survey (VEMS) currently asks the question “How would you rate the quality of different aspects of the trip?” on a Likert scale, with Personal Safety as one of the aspects of the question. Collecting data on that indicator, and other indicators bulleted above, would provide greater insights on how Belize is perceived by visitors as a safe destination.

The United States Department of State uses a four-tiered travel advisory system and while Belize is frequently classified at the second level: Exercise Increased Caution, the designation has recently changed to the third level – Reconsider Travel. To enhance safety in the country, Belize has a dedicated tourism police unit tasked with safeguarding the security interests of the industry. The BTB has established a tourism security task force with various enforcement agencies to better coordinate responses and planning for tourism security and safety countrywide.

A perusal of Belize's crime data indicates a broadly downward trend of major crimes since 2009, though some specific major crime, such as, murder remain high when compared on a global per capita basis. (<https://bco.gov.bz/crime-statistics/>).

Finally, Cost/Value as a qualifying and amplifying determinant is driven by a broad range of local, domestic, and global forces. Given that cost, in itself, is fundamental to the question of competitiveness, Ritchie and Crouch argues it makes more sense to treat cost as a qualifying and amplifying determinant (Ritchie and Crouch, 2003).

According to them, the monetary cost of a destination is governed by three factors:

- (1) the cost of transportation to and from the destination,
- (2) the currency exchange rate (in the case of international travel),
- (3) the local cost of tourism goods and services.

Important in this regard, is that the average spending per tourist in Belize appears to be less than the targeted value of the NSTMP. Given issues such as the carrying capacities at various attractions in Belize, targeted efforts ought to be prioritized to ensure increases in this important indicator. (Figure 5).

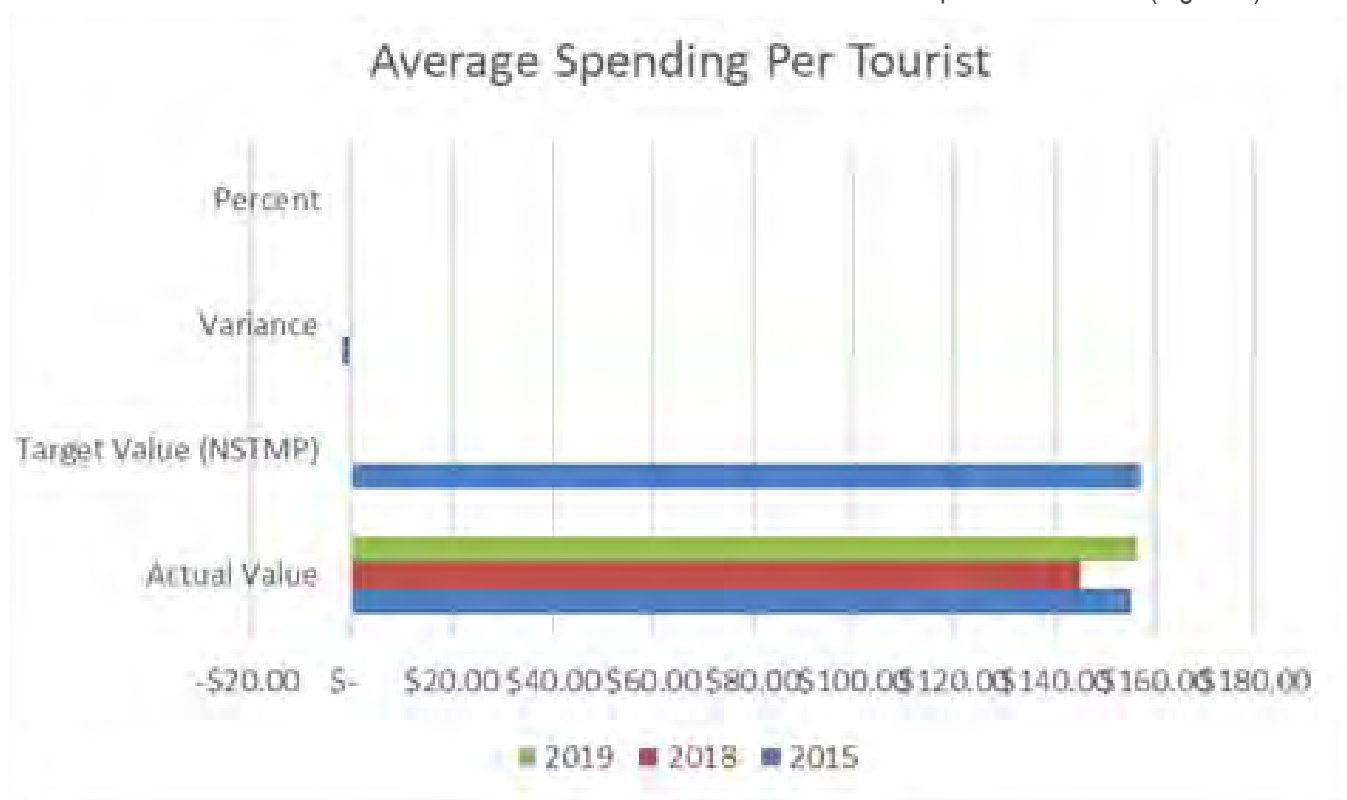


Figure 5: General NSTMP Indicator – Average Spending Per Tourist

6 ENHANCING BELIZE'S COMPETITIVENESS

Currently, sustainable tourism is understood from two distinct perspectives. The first is ecotourism, which involves travel aimed at recreational activities to appreciate and learn about nature through direct contact. The second and more recent perspective focuses on transforming tourism services and popular destinations to generate a lower social and environmental impact with initiatives such as reducing emissions from transportation, incorporating sustainable practices to reduce energy consumption in accommodation, and engaging with corporate social responsibility programs in the community.

Belize possesses a broad and natural diversity of assets, therefore making different aspects of ecotourism, agrotourism, adventure tourism, and others a significant part of its offering. The country's rich historical background is reflected in numerous Maya heritage sites. Its many cultures including Mestizo, Maya, Kriol, Garifuna, Mennonite, and others, provide a unique opportunity for visitors to experience multicultural diversity coexisting peacefully. Furthermore, its geography and paved road network facilitate convenient access and easy visitor movement.

The tourism industry in Belize has continued to grow over the last two decades in both the overnight and cruise sectors. The terrestrial and marine-based products have diversified and welcome visitors year round. Belizeans are now productively engaged in tourism as tourism is one of the most important economic activities of the country, contributing to 18 - 25 percent of the total GDP (varies depending on the source), and accounting for about 22 percent of total employment (SIB 2022).

The COVID-19 pandemic had a substantial impact on the tourism industry in Belize. To limit the spread of the virus, the country closed its borders to international travelers and implemented strict measures. The effect on tourism-related businesses, such as hotels and tour operators, was immediate and profound, with many of them forced to shut down or operate at a reduced capacity.

Consequently, the total number of visitors in the country significantly declined by over 70 percent in 2020. This unprecedented downturn in the tourism industry has had far-reaching implications on the country's economy and the livelihoods of its citizens who rely on tourism for their income. The Belizean government has responded by implementing various measures to mitigate the impact of the pandemic on affected individuals and businesses.

Updated data from the SIB and the BTB indicate that in both cruise and overnight tourism, Belize has recovered though not yet to pre-pandemic levels. In 2022, Belize received 370,526 overnight arrivals and 615,021 cruise visitor arrivals. The primary market source of tourists is North America; the United States accounts for 83 percent of travelers, Canada for 2 percent, and Mexico for 1 percent. Europe is the second most crucial market accounting for 4 percent of visitors.

The potential for further growth in Belize's tourism activity is high; tourism in Belize is categorized as an "emerging" sector rather than a "mature" one. Compared to well-established Caribbean tourism destinations, Belize's tourism industry is relatively new (Chow, 2019), and Belize's natural assets align well with market demands.

The recovery process itself is a good indicator of resilience and competitiveness. However, there are elements that Belize should consider in the short to medium term to take advantage of its competitive position. These include the following:

- Need to improve and expand accessibility by air. This requires broadening international flight connections, mainly from Europe, Canada and Latin America.
- Need to improve the availability and quality of Belizean-made handicrafts and the commercialization of traditional products and leisure activities.
- Insufficient waste disposal and sewage systems, resulting in unhealthy conditions and visual pollution at known tourism sites and destinations.
- Lack of urban land planning and land use regulation, resulting in haphazard and inadequate urban development, beach erosion, and land use conflict
- Need for deeper integration of local communities, artisans, and tourism-related MSME's into the tourism value chain.
- Developing standards and protocols to prevent cultural appropriation in tourism activities and communications involving indigenous groups is critical to promote responsible and respectful tourism practices.
- Strengthen the capacity of local indigenous communities to develop wellness and agritourism products.
- The absence of a cruise docking facility.

It is to be noted that, though some of the factors above are already being addressed in varying degrees, for example, a cruise docking facility is being constructed in Belize City. One such facility already exists in southern Belize.



Che Chem Ha Cave, Thomas Shahan, 2013, Wikimedia commons

7 LONGER TERM ISSUES

There are some longer-term issues that Belize needs to be cognizant of, since these issues impact on the country's tourism offerings. A first and major impact is climate change. Climate change includes, rising sea levels, coastal erosion, changed weather patterns and increased frequency and intensity of natural disasters such as hurricanes. All these impacts will have varying effects on Belize, notably since some 60 to 70 percent of the country's tourism assets are located near the coast. The changing weather patterns will also affect agriculture, which is the country's second largest foreign exchange earner after tourism.

Another medium- to long-term issue is global disruptions of which Belize has little to no control. Given the country's near absolute dependence on fossil fuels for transportation, Belize is highly vulnerable to fluctuations in energy prices for fuel. There is also a need to reduce dependence on neighbouring Mexico for electricity. The country is also affected by the global food crisis, the continued fallout from the war in Ukraine, and soaring freight costs occasioned by supply chain disruptions.

Some levels of risk mitigation ought to include the following:

- Enhance resilience towards natural disasters. Insurance provides one way of reducing risks.
- Reduce dependence on fossil fuel transportation and encourage increased investment in local and renewable sources of energy.
- Incentivize energy usage locally especially at hotels and tourist establishments.
- Promote use of indigenous construction materials such as thatch, while simultaneously encouraging efforts at replanting.
- Incentivize and encourage rainwater harvesting.
- Establishment of a Tourism Trust to promote investment, growth, and development in the tourism sector, encouraging better management of tourism resources while supporting The National Sustainable Tourism Master Plan.



Rio Blanco National Park, Santa Elena, Belize. Source: <https://www.acicafoc.org/proyecto/sub-proyecto-noh-sos-hail-cuxtal-tihoj-maya/>

8 RECOMMENDATIONS

I. Focus on increasing threats that could individually and collectively impact Belize's tourism product offerings

Prominent among these are Climate Change Implications, Global Disruptions and Emerging Tourism Behavior Trends. While these are all exogenous variables outside Belize's control, Belize can do its best to monitor specific indicators and seek to mitigate their effects where possible and feasible.

Regarding Climate Change, Belize's Ministry of Sustainable Development & Climate Change notes the following: *"Climate change is already having significant impacts on Belize's territory, population and key economic sectors. Impacts experienced in the country to date include sustained droughts, floods, increased coastal erosion and changing precipitation patterns. In the future, these effects are expected to increase, thereby threatening the physical and social infrastructure in Belize.... Tourism, which accounts for the most income of any sector is impacted by sea level rise, coral bleaching and impacts on biodiversity. Critical support systems including water resources, health and energy are likewise impacted by the increasingly variable climate in the region. Belize also hosts globally significant ecological resources including rainforest, mangrove forests, wetlands and coral reefs which are under threat from a warming world. Belize considers adaptation as a high priority given its vulnerability to natural hazards and climate-related shocks. (Source: MSDCC 2021).*

The recommendation is to develop site specific SMART (Specific, Measurable, Achievable, Relevant, Time-bound) indicators such that certain climate change indicators—for example the effect of sea level rise—can be measured at a given destination.

Regarding Global Disruptions, the country ought to seek to reduce its dependence on imported fossil fuels.

In the short to medium term, this can be achieved by enhanced efficiency in vehicles being used, encouraging diversity in sources of energy, for example solar and wind power. Rainfall harvesting, already being done, must be encouraged.

Regarding tourism behavior emerging trends, at present, SIB and BTB are collaborating to undertake a Visitor Expenditure Motivation Survey (VEMS) at the country's main tourist entry point. Though regarded as a short to medium term initiative, the results hope to point to industry stakeholder's views and perspectives of tourists that ought to be taken into consideration for future planning initiatives.

II. Broaden and simplify the VEMS to collect data on specific perceptions on tourism products

At present, VEMS is not administered at all of the country's official entry points. The recommendation is first to administer the questionnaire at all border points such that cross border traffic is captured and then to simplify the instrument such that it can also be administered at specific tourism sites. This would provide more real time data for analysis to capture changing trends in tourism behavior.

At present, SIB is working on aggregating all the tourism data captured in GDP statistics to develop tourism satellite accounts. When fully developed, these accounts will accurately measure tourism's contribution to Belize's GDP.

9 CONCLUSION

Belize’s unique and diverse tourism offerings are such that tourism will perennially feature prominently in the country’s development. The ongoing development of the tourism satellite accounts is projected to more accurately measure tourism’s contribution to GDP. There is scope for enhanced contributions as well as greater linkages with other aspects of the economy, notably Agriculture and Manufacturing. Local tourism policy ought to be oriented towards deepening these linkages, and greater use of local sources for energy and reducing the industry’s carbon footprint. Collectively, these actions will also serve to encourage greater local buy-in to the industry.

This will enhance resilience against the external factors over which the industry and the country at large has reduced control. COVID-19 was one such factor. However, the rapid return to pre-COVID-19 numbers is itself an indicator of the industry’s resilience. Climate change and global disruptions present challenges that require a greater level of cooperation among affected countries. The industry ought to continue to build awareness regarding these issues and actively participate in adaptation and mitigation strategies where possible.



Blue Bayou. Secret Beach, San Pedro, Belize. Source: AJ Felson



Blue Bayou. Secret Beach, San Pedro, Belize. Source: AJ Felson

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PART 2

TOURISM GOVERNMENT ANALYSIS

ABBREVIATIONS

BCO	Belize Crime Observatory
BCCI	Belize Chamber of Commerce and Industry
BTB	Belize Tourism Board
CBB	Central Bank of Belize
CCI	Comparative Competitiveness Indicators
CEO	Chief Executive Office
DCA	Destination Competitiveness Analysis/Assessment
GDP	Gross Domestic Product
GOB	Government of Belize
MSME	Micro, small and medium-sized Enterprises
MSDCC	Ministry of Sustainable Development, Climate Change & Disaster Risk Management
MD	Marketing Department
NPAP	National Protected Areas Plan
NPAS	National Protected Areas System
NSTMP	National Sustainable Tourism Master Plan
NTP	National Tourism Policy
PIM	Project Implementation Manual
PACT	Protect Area Conservation Trust
PDD	Product Development Department
SIB	Statistical Institute of Belize
UB	University of Belize
UNWTO	World Tourism Organization

Introduction

Tourism governance is fundamental to the long-term viability of Belize's tourism industry. Establishing robust governance that can address the cross-grained nature of tourism planning and combine multiple and distinct interests to ensure diverse input is necessary, particularly in the face of climate change, global pandemics, expanded development pressures and other challenges on the horizon. According to the IDB (2022), tourism governance must establish shared objectives and formal channels for participation to minimize conflicts between stakeholders with opposing interests.

The NSTMP highlights the need to strengthen the national coordinating body and the participation of the public sector in the macro planning for the industry.

“Governance in the tourism sector...involves coordination between three sets of stakeholders, each with different roles: (i) the private sector companies that provide tourist services; (ii) the public authorities that seek to preserve tourism-related public goods while internalizing their costs and creating an appropriate business environment for investment; and (iii) the local communities that accrue benefits from tourism but also absorb its costs (UNWTO, 2008).” (NSTMP, 2012, p. 15)

Given that Belize's tourism is interwoven and dependent on conserved marine and terrestrial ecosystems, we see this group of stakeholders doubling to six. This includes: (iv) government conservation agencies; (v) NGOs and non-profits involved in conservation; and the tourists themselves and their expectations and interest in experiencing nature and culture across Belize.

“It is therefore essential to formalize tourism governance models that can drive common objectives forward, pursue balance between economic growth and socio-environmental sustainability, build consensus, and transparently manage the tradeoffs that inevitably have to be made with tourism development.” (p. 15)

This NSTMP statement suggests a robust way forward. We support formalization with periodic reviews similar to the current review. The NSTMP highlights additional problems associated with weak regional tourism governance. Insufficient participation by local communities, low levels of inter-agency coordination (cited in the NSTMP), and excessive dependence on fiscal incentives to stimulate private investment (IDB, 2022; National Tourism Governance Macro Program, 2011) are all concerns.

In the IMF Working Paper, “Tourism in Belize: Ensuring Sustained Growth (2019), Chow noted that improvements are needed in the approaches to survey both perceptions of corruption and measure governance perceptions mostly around the rule of law and corruption perceptions indicate room for improvement, although they need to be interpreted carefully. Steps to enhance the effectiveness of the anti-corruption framework, including through the recently operationalized Integrity Commission, together with measures to raise the efficiency of the court system, including in enforcing contracts, are needed to improve investor confidence and support further development of the tourism sector. (p. 10).

The following background information from the TOR for this consultancy helps to contextualize this sub-consultancy.

“... given the tremendous impact that the COVID pandemic has had in the tourism sector on both the tourism demand and supply, the Government of Belize has decided that it is pertinent to evaluate the adequacy of the National Sustainable Tourism Master Plan for Belize in a post pandemic context.”

The National Sustainable Tourism Master Plan for Belize (NSTMP) was endorsed in 2012 by the Government of Belize and consists of a 20 year (2010-2030) strategic development plan for tourism development in Belize. The NSTMP was developed over a period of five years through extensive public consultations and industry analysis. The NSTMP's major goal is to optimize, build leadership, sustainability, and competitiveness in the tourism sector in Belize through five core strategic areas (macro-programs):

1. Tourism Governance
2. Tourism Sustainability and Quality Assurance
3. Tourism Infrastructure
4. Tourism Marketing
5. Tourism Product Development

In the case of product development, the NSTMP further expands this macro-program into six transversal tourism product development priorities:

1. Cultural Tourism
2. Nature-based Tourism
3. Cruise Tourism
4. Nautical Tourism
5. Leisure and Entertainment Tourism
6. Sun and Beach Tourism

These six product areas are further spatially defined across seven tourism destinations in Belize (Note the map updates):

Sub-National Maps 1-6

- | | |
|-------------------------|---------------------------------------|
| 1) Northern Belize | Corozal / Orange Walk (map 1) |
| 2) Northern Islands | San Pedro & Context (map 2) |
| 3) Central Coast Belize | Belize City & Context (map 3) |
| 4) Western Belize | San Ignacio & Context (map 4) |
| 5) Southern Belize | Punta Gorda & Context (map 5) |
| 6) South-Eastern Coast | Placencia, Hopkins, Dangriga (map 6) |
| 7) Offshore Islands | *offshore islands are in maps 2 and 5 |

As mentioned before, significant changes affected the external environment in which the Belize tourism sector is inserted, mainly through the unparalleled global health crisis with the COVID-19 pandemic. Climate change is a second major consideration with many impacts. Other issues including sharing economy initiatives (e.g., AirBnB), technological advancement and other changes also require consideration and were not initially included in the NSTMP design.

According to IDB (2022), for the Caribbean and Central America region “COVID-19 represents a threat to survival of the sector, which is experiencing slow and uneven recovery (p.i). This is further compounded by pre-existing structural challenges relating to:

...weak performance in i) the generation of economic benefits from tourism; (ii) the distribution of these benefits to groups in vulnerable conditions; (iii) environmental sustainability and climate management in the sector; and (iv) tourism governance as a crosscutting means of overcoming these challenges. (p. i)

Consequently, updating the NSTMP at its mid-way point of execution is necessary to ensure that the 2030 objectives established for the tourism sector, and the strategies and actions recommended to achieve those goals, are optimized for the sustainable development of a resilient and prosperous Belize for tourists and residents.

Through this consultancy, services are required to generate the pertinent inputs that will inform the National Sustainable Tourism Master Plan (NSTMP) for Belize post COVID-19 update. Services include performing a holistic diagnostic of the travel and tourism sector in Belize, considering the potential impact of the COVID-19 pandemic, climate change, technological change, and the role of innovation and entrepreneurship in making Belize a more competitive destination.

The ultimate objective of this project is to contribute to the sustainable development of the tourism sector in Belize to promote the country's sustainable growth.

Background

According to CSO (2022), during the first quarter of 2022, the economy grew by 5.3%, with tourism being the single largest contributor. CSO also said that "tourism's contribution to GDP is now over 50%" and that tourism employs 22% of all those employed.

One of the main challenges of the region's tourism sector as discussed by IDB (2022), is to strengthen recovery of the regional tourism sector in the wake of the COVID-19 shock. The bank concluded that the impact of the pandemic could last into the medium term, which could cause "a shift in tourism demand preferences in favour of destinations perceived as safe. This shift is recognized worldwide. For example, the G20 Tourism Ministers' Meetings in 2020 advocated for actions on safe and seamless travel. This makes

it necessary for Belize to study the demand side of tourism to remain competitive. Another challenge posited is to strengthen the distribution of tourism benefits to vulnerable groups in Latin America and the Caribbean. IDB (2022) recommends that to address this challenge, "tourism policies must strengthen their focus on vulnerable groups, improving their training and knowledge of the sector and access to capital and markets, as well as formalizing their jobs and businesses" (p. ii).

An approach to recovery to mitigate the impact of COVID-19 recommended by UNWTO and the G20 2020 that is not being tried in Belize, is to put women's empowerment centre stage (G20 Indonesia 2020).

Five relevant performance indicators related to tourism policy aims and objectives for local destination governance structures and vertical coordination are presented in the Belize's National Tourism Policy (2018 – 2028). They are as follows.

- The volume and value of tourism visits, including length of stay and spending per head, and its spatial and temporal distribution.
- Business performance (including occupancy levels, attendance figures and spending and other indicators of profitability and viability), levels of investment, levels of employment in tourism.
- Visitor profiles and activities, response and levels of satisfaction.
- Indicators of social and environmental conditions, including physical damage, habitat loss, pollution and crime levels.
- Delivery and response to specific policies, including actions taken and stakeholder engagement, such as provision and take up of training.

Objectives of the Consultancy

The specific objective for this component of the overall consultancy is to evaluate and prepare five charts with supporting explanations focusing on tourism governance assessment, analysis, and organization. This will include policies and regulations, practices, networking, and communication as well as destination management structures and other tourism components.

Deliverables

The main deliverables are the following. Five charts reflecting the following areas and with supporting documents:

- 1) Stakeholder Mapping
- 2) Policy Mapping
- 3) Governance Assessment
- 4) Product Development and Assessment
- 5) Tourism marketing

Methodology

The main methods used in this consultancy were a qualitative review of literature, consultations with stakeholders, telephone conversations, and peer review of information generated from the analysis of the literature review.



Tiger Cave, Toledo District, Belize. Source: <https://www.darknightcavetubing.com/author/darknightadv/>

1) The first step was an extensive review of all relevant literature, including the National Sustainable Tourism Master Plan and studies and products produced by the BTB, MTDR, research institutions, multilateral institutions, international financial institutions, and other relevant institutions.

2) Information from the reviewed documents and diagnostics on the NSTMP are incorporated in this document.

3) The five preliminary charts were generated sequentially using the information from the literature review and feedback from BTB, the Ministry of Tourism, team members, and stakeholders. The consultant generated the charts and then validated them through a number of iterations of peer review sessions and with BTB and the Ministry of Tourism. The charts include:

- (i) Preliminary Stakeholder Mapping and Analysis Chart and support materials: focusing on documenting respective interests in tourism development.
- (ii) Preliminary Policy Mapping and Analysis Chart and support materials focusing on formal and informal instruments and rules on the national and local levels.
- (iii) Preliminary Governance Assessment Chart and support materials focusing on the governance structure, processes, and capacities.
- (iv) Preliminary Organizational Chart and support materials for Product Development and Assessment in Belize.
- (v) Preliminary assessment of tourism marketing practices and development arranged in a chart with support materials. Examples of the progression around advertising and messaging over the last decade will be evaluated.

4) Prepare a Draft Governance Analysis final report.

Governance Charts

1. Preliminary Policy Mapping and Analysis Chart and support materials focusing on formal and informal instruments and rules on the national and local levels.

The policies for the tourism industry must be comprehensive, robust, and evolving to protect all tourists and stakeholders and to cover all activities. All documents in the literature call for greater participation at the national and local levels. In Belize and the region, two types of policies have emerged due to COVID-19. One is the support for the tourism enterprise sector and the adaptation to new demand-side priorities in tourism (IDB, 2022). The policies are divided into three categories: political and public actors lobbying and partnering, legal framework development, and financial scheme development. Political and public actors lobbying and partnering is expected to be strengthened with the formation of a Tourism Advisory Committee (TAC) which will be made up of CEOs from all relevant ministries of government which impact tourism. These ministries include environment, infrastructure, police, tourism, finance, economic development, and agriculture. This new structure will allow for information to go both ways between top and bottom, from destinations to the national planning and execution bodies. The Minister of Tourism, in his message in 2017 on Belize's National Tourism Policy, said that "collaboration between private, public, and civil sector organizations is key for successful execution of the policy."

The strength of the tourism industry is influenced by the relevancy and effectiveness of the policies that govern it. These policies must clearly and consistently reflect the goals of the industry. Belize currently has four legislative acts for the industry: Belize Tourism Board Act (2000), Belize Timeshare Act (2007), Belize Hotels and Tourist Accommodation Act (2000, revised), Belize Hotels and Tourist Accommodation Act Subsidiary

Laws (2003, revised). On the financial side, the NSTMP recognized the need for more specialized and effective incentives for the tourism sector.

According to the NSTMP, the areas that need to be addressed by Belize's tourism policies include the following:

- **Lobbying and partnering tools** as a crucial instrument to place tourism policy as a main national policy of Belize.
- **Regulatory instruments** for creating a legal framework addressed to strengthen capacity and scope of action of Belizean tourism stakeholders.
- **Financial instruments** as different economic devices aimed at providing financial support to public and/ or private initiative in the tourism industry in general, strengthening stakeholder capacity from an economic point of view.
- **Public-Private Partnership models** in order to develop a portfolio of projects and initiatives where public-private partnerships are crucial for success in Belize's tourism development.

Regulatory Instruments

The NSTMP and its related documents call for the development of proactive policies. Policies will be advocated for by all echelons of the tourism sector from the destinations and tour guides level to the Tourism Advisory Council level. The lobbying and championing of the drafting and enactment of the policies will be done by the Ministry of Tourism, the Council and BTB.

The Belize Ministry of Tourism, in conjunction with the Belize Tourism Board and the Inter-American Development Bank, commissioned the revision of the National Tourism Policy for Belize in 2017. This was

to: strengthen the national policy framework for tourism to more effectively address existing gaps and future development and investment needs; manage critical development constraints; integrate economic, social, environmental, governance, and legislative priorities for the sector; and, respond to projected performance (demand/supply) trends for tourism in Belize. The policy recognizes the many challenges that face the tourism sector in Belize including the availability of skilled human resources, visitor safety, environmental management and the impact of climate change. The National Tourism Policy for Belize addresses these issues and now sets out priorities and a direction for tourism in Belize for a ten-year period 2018 to 2028. The policy is based on international concepts of sustainable and responsible tourism and is reflective of Horizon 2030 and the NSTMP. It remains relevant today.

Policies regarding the legal framework will continue to be advocated for by the BTB and will be joined by the Tourism Advisory Council. The NSTMP called for legislation for the six macro products' priorities that are being promoted. According to feedback from the consultations, the policies currently in place are adequately covering the industry.

There are several specific policies in Belize pertaining to other sectors that have a bearing on tourism. Some of these are: the National Cultural Policy (2016-2026); the National Environmental Policy and Strategy (2014-2024); the National Protected Areas System Plan (2015); the National Agriculture and Food Policy (2015-2030); the Belize National Land Use Policy and Planning Framework (2011); and the National Climate Change Policy, Strategy and Action Plan (2015). Because of the impact of these policies on tourism, when tourism policies are being modified or developed, related policies must be considered.

Legislation is needed to create the Tourism Advisory/ Development Council and for the six products BTB intends to develop (nature, culture, sun & beach, nautical, cruise, and leisure & entertainment) and their specific activities

Financial Instruments

There are many sources of funds for the tourism industry as discussed under the preceding Organizational Chart section. However, efforts still need to be made to have more resources to be able to complete some activities of the industry in a timely manner. For example, marketing can do with more resources. Another example, is in the case where more resources can be made available for MSME like in other industries in Belize. In countries around us like Jamaica and Costa Rica, there are continuous efforts to provide more resources for MSMEs in tourism. According to IDB (2022), MSMEs, which make up a significant portion of tourism enterprises in the region, “lack sufficient financial and technical flexibility weather long periods of inactivity” (p. i). A tourism fund, like the one proposed, would help to address this limitation. In the region after COVID-19, businesses were provided with liquidity and protection for the most vulnerable workers and households (IDB, 2022). A tourism fund for Belize would similarly help the tourism sector. Belize seems to reference funds independent of overall tourism government budget.

Financing for the operation of the tourism industry is presented in two of the four programs under the National Tourism Governance Macro Program (Global Governance & Management and Tourism Policy) described in the NSTMP. The Global Governance and Management program called for a national sustainable tourism trust fund (NSTTF). No movement has been made so far to develop this fund, but according to stakeholders, it remains relevant as described in the

NSTMP. The industry development department of BTB is currently responsible for “fund raising” for the industry but a trust would provide a more aggressive and systematic approach to financing tourism macro activities. The Tourism Policy Program outlined the financial instruments to provide ‘financial support to public and/or private initiative in the tourism industry.’ The financial aspect of Belize’s tourism policy continues to need strengthening beyond regular operations, and it is another justification for a trust fund for tourism similar to that for protected areas in Belize and for environmental management. This fund would be able to help address the dynamic actions and needs as they evolve from climate change, natural disasters, and changes in the market. Current sources of funds for Belize from tourism include the following:

- Revenues from tourism fees/levies on incoming tourists (charged by IATA on the value of each air ticket, port authority for each cruise passenger).
- Multilateral loans and grants from the World Bank, IADB, and others.
- Contributions, donations, grants, and aid agencies—including support from international organizations.
- Technical assistance: evaluation and qualification of investment projects, and assistance to the private and public sector.

The sources of funds include departure tax, fees, government allocations, and grants. The current departure tax is U\$55.50 which is distributed as follows: \$20 for the Protected Areas Conservation Trust (PACT), \$15 for passenger service, \$18 for airport development, \$1.25 for security, and \$1.25 for baggage handling. Belizeans pay BZ\$35 for service, security, and baggage handling fees. Fees from the tourism industry come from air and land exit taxes. There is also a land border exit fee. “Non-Belizeans leaving Belize through its land borders with Guatemala or Mexico must pay an exit fee of BZ\$40. This

is distributed as follows: \$30 for a border exit fee, \$7.50 for a Protected Areas Conservation Trust (PACT) fee, and BZ\$2.50 for a border development fee.

Legislation was passed in 2015 “to levy charges and collect a tax on each manifested cruise ship passenger on a cruise ship entering and leaving Belize and tendering its passengers to the Fort Street Tourism Village” (Government of Belize, 2015).

Some other potential sources of funding for Belize’s tourism sector proposed in the NSTMP and that are used in other countries (e.g., Mexico, Brazil, Jamaica) are:

- Revenues from tourism fees/levies on incoming tourists (charged by IATA on the value of each air ticket, port authority for each cruise passenger).
- Revenues from plot sales or leases.
- Multilateral loans from the World Bank, IADB, etc.
- Contributions, donations, grants, and aid agencies of all kinds—including support from international organizations.
- Repayment of loans and interest on loans.
- Dividends or the sale of equity holdings of the fund.
- Technical assistance: evaluation and qualification of investment projects, and assistance to the private and public sector.
- Financial annual surpluses from financial instruments
- Payments of the local private sector tourism industry calculated upon the industry’s net revenues (Tourism development tax for tourism operators).
- Revenues from sponsorships and commercial promotional activities from the main tourism promotion organization.
- Fines imposed on tourism service providers.
- Return on investments of government securities.

Some Tourism Funds used in other countries are highlighted below.

Jamaica Tourism Enhancement Fund

(from <https://tef.gov.jm/our-story/>)

“In December 2004, the “Tourism Enhancement Act, 2004” was passed by Parliament. This Act provided the legal basis for the Ministry of Tourism to establish a mechanism for the collection of a small fee from incoming airline and cruise passengers. However, the Act was amended in 2017, and now allows for:

- 1) A Tourism Enhancement Fee of US\$20.00 to be charged to incoming airline passengers and US\$2.00 to be charged to cruise passengers.
- 2) The monies collected are paid over to the Collector of Taxes.

The Tourism Master Plan provides the framework in which the TEF will fulfill its mandate of promoting growth and development in the tourism sector, encouraging better management of environmental resources on the island, enhancing the overall tourist experience, and providing for the sustainable development of the tourism sector.”

Brazil's Tourism Fund

Multiple sources: contributions, donations, grants, repayment of loans, and dividends on sale of equity holdings, etc.

Columbia's Tourism Fund

Multiple sources: tourism tax, donations, revenues from commercial activities, fines imposed, airfare/ticket tax, and tax on tourism companies.

Mexico's Tourism Fund

Income generated from property right sales; return on investments, and loan interest.

Recommendations

- 1) Repeal or replace the National Ministerial Council to reflect the desired new body, the Tourism Advisory/Planning Council.
- 2) BTB should continue to put policies and legislation in place for product standards, and these should be developed in a timely manner to help guide the development of products.
- 3) The product development department should have an arm that is responsible for industry standards.
- 4) A Tourism Development Fund has been recently recommended and discussed. The need for a fund is still relevant and should be pursued as per the NSTMP with guidance from existing and recently developed funds, like the environmental and marine funds.
- 5) BTB should be implementing a funding mechanism encompassing core government funding together with BTB's own resource generation and contributions from the private sector.
- 6) Promote sustainable funding.
- 7) Promote evidence-based, data-driven policies.
- 8) The government and BTB should study the demand-side priorities of the industry to remain relevant and competitive.
- 9) Belize should continue to be marketed as a safe and green destination.
- 10) Belize should promote climate smart tourism. According to CTO (2020), this is tourism that enhances resilience (adaptation), reduces or removes greenhouse gases (mitigation) where possible, and enhances the achievement of sustainable tourism and development goals.
- 11) Policies should promote Belize as an ecotourism destination and not a mass tourism destination.

Tourism Policy

Political and public actors lobbying and partnering

Achieved through Tourism Advisory Council, BTB; regional and destination committees.

Legal Framework Development

To be developed: Legislation for: Tourism Advisory Council; BTB; product standards; operations and activities undertaken at the whole tourism value chain; tourism activity at a destination level.

Financial Scheme Development

Needed: start-up capital for a Fund
Considerations: loans, subventions, incentives

Tourism Satellite Account

BTB & MOT need to work closely with SIB to collect, analyse and make available data for planning (timely).

Need policy to establish partnership

Tourism Safety and Security

BTB & MOT need to continue work closely with the Police Department and the Ministry of National Security to ensure the safety and security of visitors.

According to BTB, digital marketing is currently the most effective means of marketing. IDB (2022) stated that the public sector plays a key role in the digital transformation of the tourism sector because it influences the infrastructure needed. The TAC will help to bring the public and private stakeholders together.

As with all investments, there has to be continuous evaluation of the short- and long-term effectiveness and return on the different marketing efforts. Because of the current fluid environment of the tourism industry, it is important to have ongoing monitoring of the market. This must be an integral part of the operation of the marketing department. This highlights another critical use of the TSA and the DCA data. In IDB's Tourism Sector Framework Document, the importance of market intelligence is highlighted.

2. Preliminary Organizational Chart and support materials for Product Development and Assessment in Belize: targeting six (6) tourism product owners/managers documenting a range of Management Effectiveness Scores

Two governance structures have been delineated within the organizational framework. One dimension pertains to planning, while the other deals with management and operations. The NSTMP initially called for a Ministerial Advisory Council to serve as the highest planning entity for the industry. However, feedback obtained through stakeholder consultations indicates that the concept of a Ministerial Advisory Council is no longer relevant. Instead, a lower-level body is recommended, composed of Chief Executive Officers (CEOs) from relevant government ministries (e.g., finance, economic development, lands, infrastructure, police, agriculture, etc.), and a representative from each of the major tourism stakeholders (e.g., Belize Chamber of Commerce, network of NGOs, BTIA, BHA). This revised structure, which has been in operation for approximately six months, is aimed at ensuring long-term political support for the NSTMP and fostering participatory governance.

The higher-level council of ministers garners strong support from some stakeholders and advisors, but it faces significant challenges to its functionality and effectiveness, primarily due to the perception that most ministers tend to prioritize their ministries and have not historically demonstrated effective collaboration in this manner.

This Council will be chaired by the Minister of Tourism, with the CEO for the Tourism Ministry serving as the secretary, and the Ministry of Tourism serving as the recording secretary. A key role of the recording secretary will be to follow up on Council matters.

The Council's core role is to maximize the tourism industry's impact on the country. It advises the Ministry of Tourism on policies and developments, fosters collaboration among influential government ministries,

evaluates investment proposals, and sets priorities. The Council closely collaborates with the Belize Tourism Board (BTB), which remains the top body for tourism management. The BTB's ongoing development of the National Tourism Security Strategy and this report can inform the Council's decisions. The Council and BTB also work closely with the Ministry of Tourism and other entities like BELTRAIDE. Stakeholder feedback highlights BELTRAIDE's limited industry impact, necessitating enhanced networking and involvement, such as assessing investments and promoting Council-identified projects and activities.

The Regional Committee's primary functions will include identifying and advocating for projects and investments to develop the region, promoting inter-destination packages, facilitating the monitoring and evaluation of projects, policies, and investments, and acting as a conduit for information exchange between destinations and the Council. This committee, along with the Destination Committee, will work to enhance the role of local government in the industry and promote local capacity building. The establishment and operation of these two committees will be facilitated by the BTB.

The Local Committee's functions will encompass destination planning, identifying micro-projects, monitoring and evaluation, coordination, promoting local capacity building, and making recommendations to the Council through the Regional Committee. This committee will consist of proactive leaders from local government, civil society, and the private sector.

Information will flow in both directions, from the bottom to the top and vice versa, to leverage all available data in planning and making informed decisions. For instance, Council members might be aware of international interest in advancing green accommodations. In this scenario, Destination Committees may have the best insights into how to achieve this goal, enabling all relevant stakeholders to collaborate effectively to achieve synergy. The Council will convene quarterly, the Regional Committee every two months, and the Destination Committee monthly or as

needed.

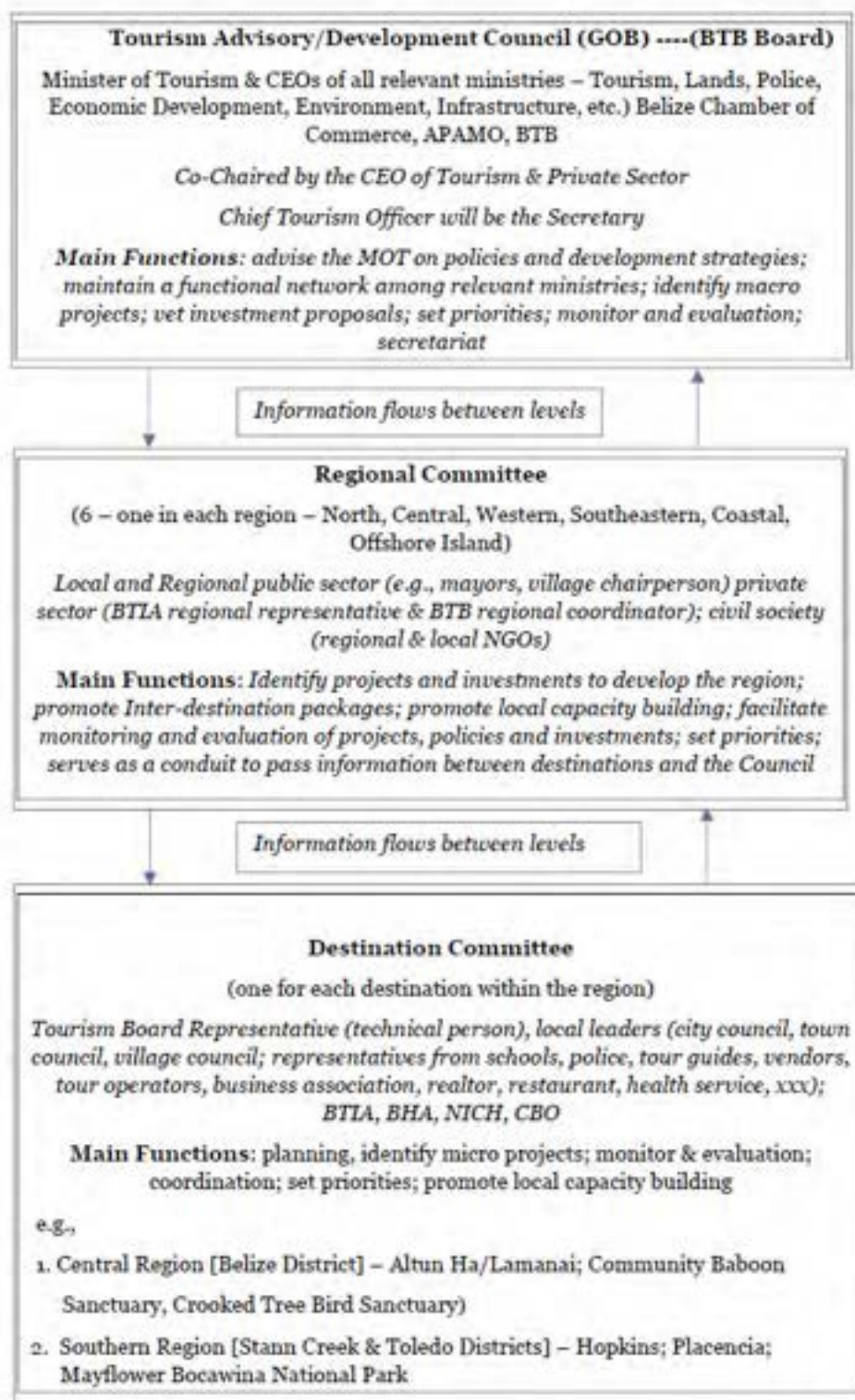
The guiding principles for tourism governance in Belize at this time are participatory, partnership, collaboration and networking. An example of each of these is given:

- Participation of all stakeholders from the local community members to the chief executive officers and ministers of government. Great emphasis should be given to local community members who have knowledge of their destinations.
- Partnerships among destinations to create packages and to promote development of destinations and geographical areas will help to develop and enhance tourism products.
- Collaboration among ministries of government to ensure that the enabling environment is created to achieve the goals of the tourism industry.
- Networking among stakeholders such as hotels, tour operators, tour guides, transportation companies, and destinations, could create synergies to grow the industry and make the Belizean tourism product more attractive.

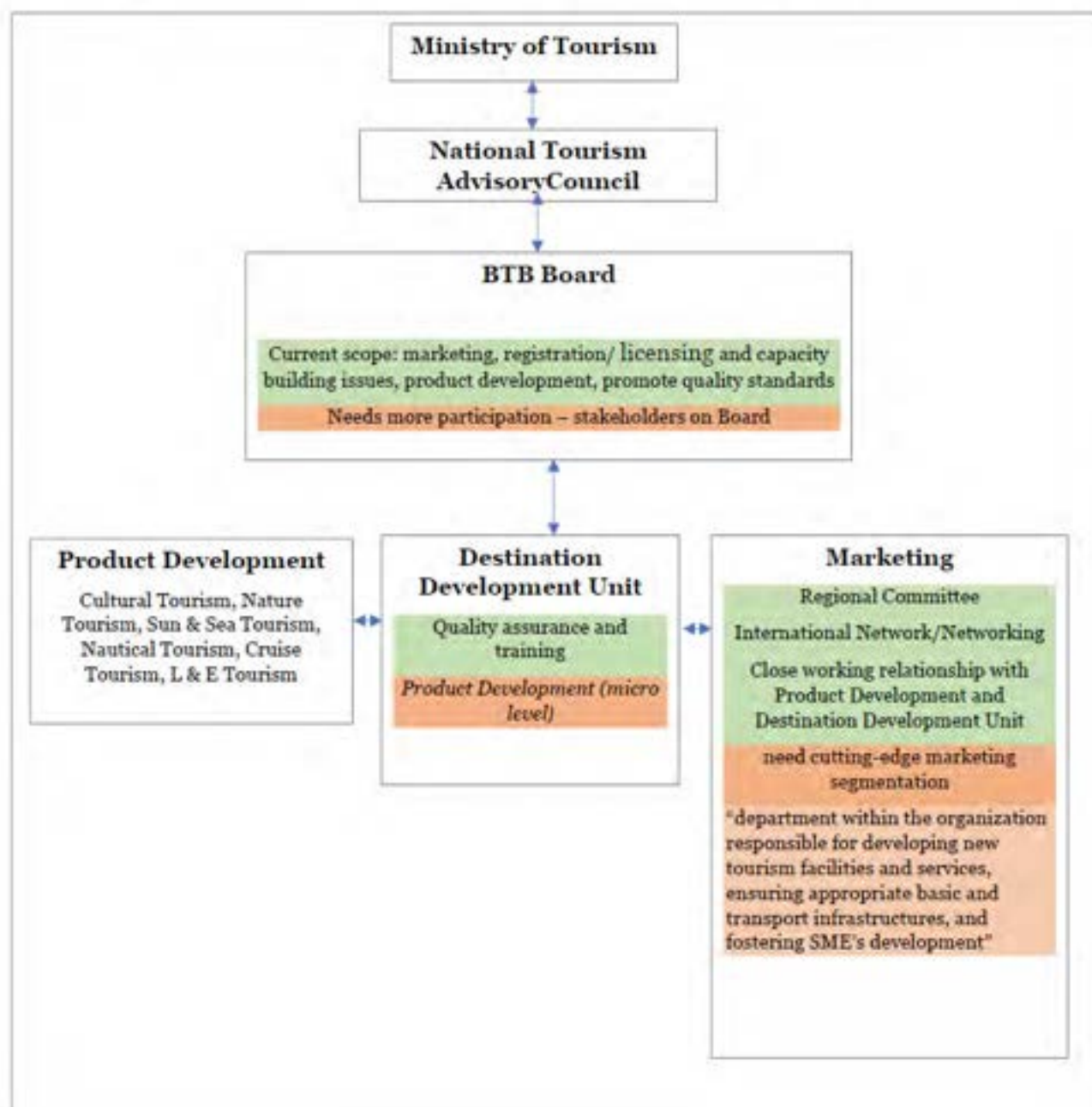
Local communities often do not receive the expected benefits from tourism. For instance, some large hotels run their own tour operations and transportation, which deprives local tour operators and taxi services of tourism-related benefits. In Placencia, as noted by itous (2017), residents sometimes have to shop for groceries in neighboring Mango Creek and Seine Bight villages because prices are higher in Placencia, and most grocery stores are owned by non-locals.

The overarching goal of the 2017 Tourism Policy is to "Provide rewarding income, employment, and recreational opportunities for local people and communities, helping to alleviate poverty and increase local prosperity and well-being." As part of governance, the Tourism Sustainability Assessment (TSA) should monitor the involvement of local communities in tourism and its impacts on them, both positive and negative.

Governance Planning Chart



Governance Management & Operation Chart



3. Preliminary assessment of tourism marketing practices and development arranged in a chart with support materials.

Marketing is a major component of the tourism industry. The National Tourism Marketing Macro Programme: National Sustainable Tourism Master plan for Belize 2030 identified “the need for marketing intelligence management, tourism positioning management, tourism awareness development, and marketing with new technologies.” BTB is the main organization responsible for marketing tourism for the country. A pointed questionnaire on Belize’s marketing of tourism was completed by BTB for this consultancy. The feedback, which is presented in Appendix A, clearly describes what is currently being done and provides a preliminary scope of the way forward.

Strengthening tourism market intelligence systems is a necessary condition for maximizing expenditure generation opportunities, in that it allows a deep understanding of the consumption preferences and patterns of the different tourism demand segments. Tourism planning in the region is generally focused on the supply side, and it is therefore urgent that this inertia be broken, prioritizing knowledge of the demand side so that destination characteristics can be adjusted to maintain competitiveness in response to market requirements. (IDB 2022, p. 40)

Some recommendations for marketing-based on the review of literature, feedback from consultations, and the consultancy team are as follows:

- 1) The Marketing Department (MT) works along with the Industry Development Department (IDD) so that details of products that are being developed, are known and can be effectively shared by the MT. Also, the MT can pass on information from feedback received through marketing efforts to the PDD.
- 2) Establish a system to continuously determine the relationship between marketing expenditure and income to the sector. More specifically, develop a system to

determine which marketing strategies are most effective.

- 3) Continue to use digital market campaigns which is currently the most effective marketing strategy.
- 4) Continue to network with stakeholders, especially airlines.
- 5) Continue to use local committees to help guide the marketing process.
- 6) Seek more funding to be able to do more marketing activities.
- 7) The marketing strategies must remain dynamic to be able to respond to changes in the market, including natural disasters, evolving products, changes in global communication and marketing, etc. At the same time the department must plan for the long term to support the long-term strategies for the industry.
- 8) Development of packages across destinations. Local and international marketing of these packages.
- 9) Develop a high level of tourism awareness among the local population. (Importance of tourism to the country’s economy and information on tourism activities in and around one’s community)



El Pilar Archaeological Site near San Ignacio, Belize <https://www.cahalpech.com/belize-tours/el-pilar-mayan-ruins/>

Marketing

International Marketing

Approach: International Network/Networking; strategic marketing

Close working relationship with Industry Development and Destination Development Unit

Continuous Evaluation of return from marketing by markets/segment

need cutting-edge marketing segmentation

"department within the organization responsible for developing new tourism facilities and services, ensuring appropriate basic and transport infrastructures, and fostering SME's development"

Local Marketing

Approach: Local network/Networking; Regional Committee/destinations, Strategic marketing

Close working relationship with Industry Development and Destination Development Unit

Continuous Evaluation of return from marketing by markets/segment

Tourism Awareness Development

(Development of knowledge and awareness among local populations of the value of tourism to our economy and of the tourism offerings of their destination/region and of the country; marketing to the local community about the benefits of tourism to their region will be more effective if tangible benefits can be delivered and can be shown to be delivered to the local community and the region

ROLE	STAKEHOLDERS		
	PUBLIC	PRIVATE	CIVIL SOCIETY
Planning for the Industry at the national level (e.g., networking to facilitate all relevant policies that affect tourism, e.g., National Environmental Policy and Strategy, 2014-2024, National Cultural Policy 2016-2026)	TAC (All relevant Government Ministries: Tourism, Environment, Lands, Infrastructure, Police, Agriculture, BTB, Economic Development, etc.)	BHA, BTIA, BCCI	
Planning for the industry at the regional and destination (local) levels	BTB, Ministry of Tourism	BHA, BTIA, BCCI, Tour Operators, Tour Guides, Municipalities, Local People	NGOs, CBOs, community leaders (teachers, nurses, village council members, local residents)
Improving livelihood of especially local communities	BTB, Ministry of Tourism	Municipal governments, tour guides, tour operators	NGOs, CBOs, community leaders (teachers, nurses, village council members) local residents
Building awareness of the tourism at the local, regional, and national levels	BTB, Ministry of Tourism	Municipal governments, tour guides, tour operators, BHA, BCCI	NGOs, CBOs, community leaders (teachers, nurses, village council members) local residents

4. Stakeholder Mapping and Analysis
Chart Preliminary Stakeholder Mapping and Analysis Chart and support materials: focusing on documenting respective interests in the tourism development.

All current documents related to governance discuss the need for collaboration and partnership between the public and private sectors and more inclusive governance (NTP 2018-28; NSTMP 2012; Caribbean Tourism Organization, 2020; Vitous, 2017). The government, through the Ministry of Tourism, is the leader in bringing together all stakeholders in the sector. Some of the MOT responsibilities are delegated to BTB and BTB also further delegates some of its responsibilities to regional

and local organizations. As discussed in other sections of this document, the regional committees bring together stakeholders with common interests to work towards shared needs, standards, and development.

The networking of all stakeholders in the tourism sector should result in sustainable and relevant tourism which will be attained as a result of the following:

- Improved vertical communication, integration, and support.
- Participation of local people in planning, development and monitoring of tourism activities.
- Valuing all stakeholders’ contributions to the sector.

GOALS OF TOURISM SECTOR	OUTCOMES	CHALLENGES	STRATEGY	EXAMPLES/ COMMENTS
Increase income from tourism	<ul style="list-style-type: none"> - Increased revenue for the country. - Impact on local communities. 	-Benefits to wealthy investors to the detriment of local communities.	-Enact relevant and adequate policies and legislation.	-In some communities, local residents are not significantly benefiting and may be negatively impacted by tourism development around them. Hain (2017) and Vitous (2017).
Bring in international investors	-Development of large hotels and resort to attract and accommodate large international meetings and forums.	-Ensure that local communities benefit from investments and developments in their community and adjacent to their community.	<ul style="list-style-type: none"> - Work with Beltraide, the BCCI, EDC, Ministry of Finance and other relevant agencies. - Offer financial incentives. - Provide mechanisms for raising and disseminating funds for tourism investment. 	
Engage local communities and disadvantaged groups	-Local people including women and youths are participating meaningfully in the tourism industry.	-To attract and retain locals in tourism activities that they might not have training for and are seasonal.	-Women and youth empowerment through training, opportunities and incentives.	
Spread tourism activities throughout the year	-Income for local communities throughout the year.	-Diversifying activities.	-Have activities to attract different tourists (local and foreign).	
Minimize negative impact of tourism on the environment and local communities	-Destination is sustainable.	-Convincing stakeholders to do activities to maintain destinations which could include reduction or no increase in the number of visitors to sites.	-Educating and building awareness among stakeholders.	-Developers and businesses will always want to attract more business.
Have an updated tourism policy	-Timely and good data to guide planning for the industry.	<ul style="list-style-type: none"> - Cost - Consistency in data collection and processing. 	-Establishment of a M&E framework for the policy and NSTMP.	-Assess regularly the relevancy, quality and reliability of tourism data to guide policy development.

5. Preliminary Governance Assessment Chart and support materials focusing on the governance structure, processes, and capacities.

This section is a preliminary exploration of the governance assessment based on the expected outcomes of the sector.

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Appendix

Questionnaire on the Marketing

1. What is BTB's marketing system? How does BTB decide what, where, and how to market?

BTB utilizes a 360° marketing system, which includes Advertising, Media Buying, Social Media, Analytics, Web development, and Public Relations. With a limited budget, the BTB focuses its marketing efforts on key direct flight markets, gathering data from ARC (flight data), Google analytics, and past data to help inform where we market. Our efforts ensure we are marketing to the right target audience on devices and platforms that they, as a consumer, like to consume information/ advertisements (streaming TV, programmatic efforts, paid search, social media platforms, native, etc.).

As it relates to trade marketing, the focus has been largely on B2B activities, including training through webinars, face-to-face training, and our online training program with OTT, trade engagement, trade advertising and incentives, FAM trips, and attending trade shows to educate key trade partners on the diversity of experiences available in Belize to sell to their customers. We conduct regular audits to identify which tour operators are selling Belize and then work with them to help grow their business or introduce a new product. Where there is potential, we engage in joint marketing campaigns with selected operators to promote Belize as a destination to their audience and drive bookings to the destination.

Our marketing strategy for Belize takes into account the following traveller trends:

- **Prices in the Caribbean are Skyrocketing:** The price is not right. Caribbean destinations are running the risk of pricing themselves out of the global travel and tourism market, where passengers have more choices than ever before. For example, a flight for an eight-day vacation from London to Bridgetown in October is around \$800, but a flight from London

to Dubai for the exact same time frame is around \$600.

- **The Future of Outdoor Adventure:** Adventure travel demand has been trending toward a greener, more sustainable, low-impact itineraries. 'Slow travel' itineraries have also been increasing in popularity, with travelers seeking an unrushed, deeper connection with nature and the destination.
- **Family travel- An Opportunity for Enrichment:** Travellers from all regions of the market use internet searches and online travel reviews for inspiration on their next international trip booking, offering Belize the opportunity to woo these family visitors without having to reach niche regions.

2. How long has this system been in place? Are there plans to modify it?

Marketing efforts are modified and optimized on a weekly basis. Over the past few years, with the pandemic, the overall messaging structure has changed, along with the marketing efforts and creativity to meet the needs of the potential traveling consumer. As the industry has started to stabilize, the BTB anticipate shifts in strategy to start to minimize over the next few years. Our plans modify in response to airlift, as this is the most important factor for travellers.

3. Are there ways you think that it can be improved over the next five to ten years

Increased marketing funds and airline partnerships will lead to increased awareness and demand for Belize. If there are funds available for consumer marketing, BTB will be able to use the intelligence gathered by our insights team to produce a fully integrated marketing campaign that is synchronized across trade, consumer and PR to increase awareness of Belize amongst the consumer and create the demand for the destination to

drive bookings through our trade partners.

4. What products are currently being marketed?

We are continuing to focus on driving awareness through our key pillars to attract new and returning travellers. These include active adventure, luxury/honeymoon, diving, and sustainability. We are marketing sustainable tourism messaging, adventure, boutique properties, and cultural activities throughout Belize to travellers.

5. What are the main products you think BTB will be marketing in the next five to ten years

- **Belize Barrier Reef** - We will use the activity in the existing scope of work to highlight the Belize Barrier Reef, the second largest Barrier Reef in the world, and maximize exposure by keeping this front of mind with the trade and media. We want to ensure that key messages about the Reef are shared with a wide target audience when it comes to PR and Trade to increase awareness of Belize Barrier Reef, but also a country at the forefront of conservation.
- **WIT Concrete Dive Wreck Site** – Home to the second largest barrier reef in the world, Belize is regularly heralded as one of the best diving destinations for marine exploration. Located at Blackbird Caye, this new dive destination will relieve stress on natural reef habitats and offer divers the opportunity to explore the vast array of marine life found in Belize's waters, including manatees, turtles, manta rays, and dolphins. The project will be among one of the largest wreck dive destinations in the Caribbean, re-enforcing Belize's status as one of the best diving destinations in the world.
- Belize has also begun the development of **Community-Based Tourism clusters**, promoting

the preservation and featuring of our Indigenous communities, and introducing guests to traditional gastronomy, agricultural practices, music, dance, and way of life. In this light, Belize is currently working with regional partners to develop the very first Garifuna Tourism Cluster, which will feature the culture and heritage of this influential afro descendent indigenous group in the region.

- **Sustainability Certification** – Belize has in its pipelines the rollout of a Sustainable Tourism Certification Program for Protected Areas, Hotels, Restaurants, Tour Operators, and other tourism-based businesses in the next couple of years, formalizing Belize's commitment to sustainable development.

6. How strong is the BTB marketing department on a scale of 1 to 10 with 10 being the highest score?

9 – Overall the BTB marketing team has an incredible understanding of their target audience and is driven to develop new ideas to attract new travelers, but also has a great understanding of how we can continue to have repeat travelers. As the market stabilizes, BTB's marketing department will be able to shift from responsive marketing to longer-term planning activities that support the overall strategy.

7. How can the marketing department become more effective over the next five to ten years

- Awareness and Education - continue to build on destination awareness and product knowledge, keeping Belize top of mind for both trade and consumers.
- Expand knowledge of Belize further within the

travel trade and create brand ambassadors to increase Belize's market share and drive bookings.

- Consumer marketing funds will be used to gather intelligence from our insights team to produce a fully integrated marketing campaign that is synchronized across trade, consumer, and PR to increase awareness of Belize amongst the consumer and create the demand for the destination to drive bookings through our trade partners.
- Develop and engage all markets in a multi-year tourism strategy so that we can all plan towards common goals, adjusting tactics to our specific markets.

8. Does BTB's marketing department network with other tourism stakeholders?

- We are in touch daily with travel agents and tour operators and work closely with airlines and hotel groups. We also regularly network at industry events, from seminars to roadshows.
- BTB is a member of numerous associations, attending events, sharing destination updates and industry insights, and carrying out training sessions to promote Belize as a destination to their members.
- BTB has carried out numerous activities with private sector members based in Belize, including webinars, FAM trips, virtual events and sharing industry updates.
- BTB also works closely with the Belize High Commission in the UK, keeping them updated on

plans and upcoming activities, sharing industry updates, and inviting them to events.

9. Can you give some examples of progression around advertising and messaging over the last ten years, and their effectiveness?

- The introduction of digital campaigns has provided better value for money; all campaigns are measurable to maximize return on investment with tour operator call to action to drive bookings.
- Digital advertising enables us to target a very specific demographic and accurately measure our interaction with target audience.
- When developing ads and optimizing the campaigns, we take into account the following:
 - We analyze and use the trends, content, and creatives that are most engaging.
 - We analyze the search terms and search trends.
 - We analyze competitors and develop conquest campaigns to outrank competitors.



PART 3

NATIONAL SUSTAINABLE TOURISM MASTER PLAN FOR BELIZE 2023 UPDATE



UPDATE OF THE NSTMP BELIZE 2030

An Update 2023

The National Sustainable Tourism Master plan (NSTMP) for Belize 2030 was prepared in 2012 and sets out a robust program of priority tourism product development and phasing per destination. The NSTMP encompasses an 18-year time frame and is supported by an expansive diagnosis of tourism sectors and a catalogue of 5 tourism planning packages across 16 reports (and 500 pgs) addressing:

- A. Definition Strategic Framework
- B. National Destination Physical Plan
- C. Implementation Programs
- D. Budget Analysis of Macro Programs
- E. Project Implementation Manual

It includes the following 2030 Vision Statement:

Belize is a multicultural, sustainable destination in the Central American Caribbean. It is a destination where the authenticity and friendliness of its people, coupled with a unique natural environment, can be actively experienced within a conserved world.

This Vision Statement emphasizes two of Belize’s core strengths: its multicultural people and richly conserved environment. Our experience of the people and Country over the last year as we have assessed the NSTMP for Belize and sought to provide updates and priorities to inform the next master plan, reinforce these values and add additional layers.

Below, we provide a revised vision statement:

Belize is a globally recognized biodiversity hotspot with a deep Maya history extending back a millennia and layered with Kriol, Garifuna and Spanish culture. Early and active conservation has established Belize as a globally unique destination where cultural layers, ecology and well-established high-end tourism are all within a half-day drive, boat ride or flight, combining to create a once-in-a-lifetime experience.

As such, the vision is to grow tourism in Belize in a way that considers all elements, benefits its diverse peoples, respects its rare natural and cultural environment, and contributes to the country’s economic development and competitiveness.

This Addendum 1 represents an interim stage peer review of the NSTMP halfway through its life-span (10 years), enabling a review, prioritization and refocus guided by contemporary tourism issues and feedback from key stakeholders within the tourism industry. The review has included an inspection of multiple NSTMP source documents, collaborative NSTMP user workshops, and detailed in-country fieldwork and stakeholder interviews. This summary report complements and should be read alongside the NSTMP 2030 - representing a proposition for change in 2023.

There is widespread (expert and user) agreement that the foundation NSTMP 2030 is a competent, thorough and detailed Master Plan. The adopted approach/strategies/implementation programs and forecast metrics are supportable; however, it does not address a suite of relevant contemporary tourism issues. It is also a complicated document that is inaccessible to most users. As such, the 2023 peer review seeks to 'refocus' attention with a more succinct and direct Master Plan proposition.

Given climate change impacts and other local, regional, and global challenges, contemporary tourism needs to be integrated with urban design, land development and conservation management. Tourism agencies need to take a holistic, culturally sensitive near, mid and long term environmental planning and management approaches. Governments need to consider investments, development practices and operations, and how these reinforce and even foster conservation. Monitoring, evaluation and assessment are essential for feeding back into practices. Belize's unique, compact and diverse make-up as a nation of unparalleled urban, natural, cultural, and environmental attractions requires proactive spatial planning. The nexus between tourism development

with climate adaptation forming the core of this effort alongside economic development and expanded labor are imperative. The integration of climate resilience and adaptation to address tourism and conservation is the principal shift in position for the NSTMP 2030 moving forward into its second decade.

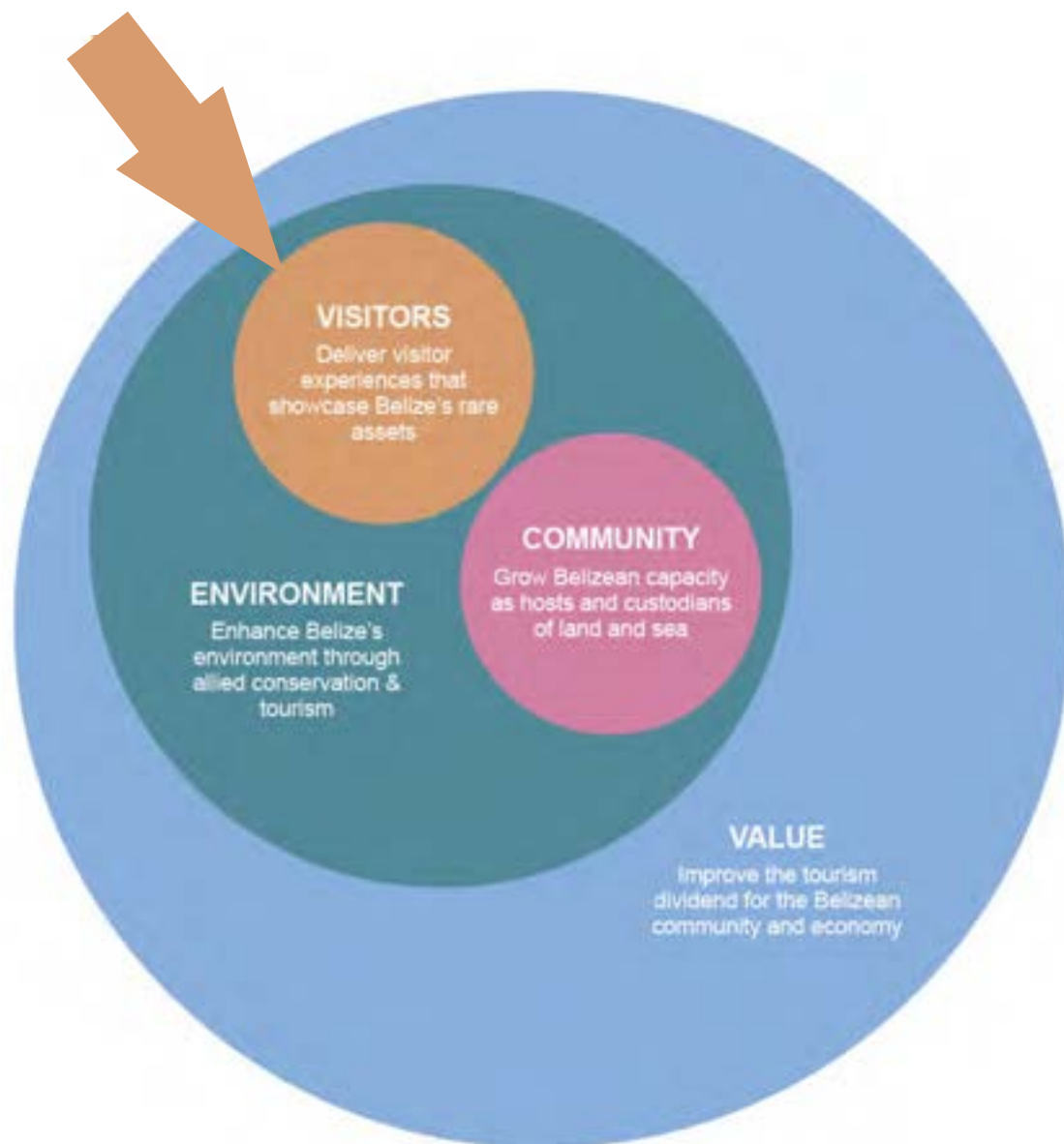
Successful repositioning of the NSTMP for the next decade requires:

- *Integration between national tourism and spatial planning (urban-environmental), and*
- *Planning for climate adaptation allied with more advanced conservation practices.*

From a climate perspective, Belize and its tourism industry and infrastructure face widespread vulnerabilities. From its barrier reef and coastal fringe to its low-lying cayes and extensive mangroves, lagoons and seagrass beds, Belize's conserved marine ecosystems are its greatest assets facing the greatest threats. Decades of conservation practices and reserve management have kept these ecosystems in practically pristine and world-class conditions. Tourism and climate change both pose risks to these ecosystems. These delicate lagoons, nature reserves, pristine rivers, and lowland plains co-exist within inland forests and mountain ranges that support diverse species and harbor a rich cultural Maya, Spanish and Kriol heritage. The geology and archaeology of Belize provide extensive tourism opportunities as well. In this Appendix to the Master plan, we are arguing for an essential mandate to align tourism with conservation and to ensure that tourism investments support climate resilience and adaptation for the Belizean people as well as tourists. It is essential to establish carrying capacities, tourism control, and land development so that it is guided by strategic investments to ensure long term viability.

This refocus is not recommended at the expense of other tourism products or markets in Belize. It is, however, the 'sweet spot,' encapsulating significant growth potential and value in the next decade.





A REDEFINED 2030 VISION

Following thorough review of documentation and stakeholder liaison, the following updated 'succinct' Vision Statement has been tabled:

Grow tourism in Belize in a way that considers all elements, benefits its diverse peoples, respects its rare natural and cultural environment, and contributes to the country's economic development and competitiveness.

Eco-Adventure Tourism

Belize boasts a thriving adventure tourism sector with well-established scuba diving and snorkeling programs offering access to world-class ecosystems. Decades of experience guiding visitors through reefs, and marine ecosystems, as well as hiking, rappelling, horseback riding, and canoeing in lush tropical forests and river systems have created a diverse range of activities that form the core of Belize's tourism offerings.

Adventure tourism, characterized by exploration and discovery with specialized skills and physical activities involving real and perceived risks, is a rapidly growing global market. Belize has solidified its reputation as a premier adventure travel destination, yet it still presents opportunities for expansion. To tap into this potential, investments in infrastructure and risk management should accompany thoughtful conservation development. Many pristine sites across Belize remain largely untapped, presenting an array of mostly unspoiled natural areas teeming with diverse flora, fauna, and rich cultural traditions, all lending themselves to adventure tourism.

Given the extensive variety of experiences throughout Belize, the Belize Tourism Board (BTB) could consider developing an adventure tourism eco-infrastructure plan. This plan would pinpoint locations for investments tailored to specific types of eco-tourism adventures. Existing marine activities, like scuba diving, snorkeling, boating, and paragliding, can be further enhanced by expanding marine reserves, incorporating educational elements, developing regeneration sites as tourist attractions, and investing in mangrove conservation tied to tourism. Inland activities such as caving, mountaineering, spelunking, and rock-climbing offer opportunities for guide training and the identification of new activity locations.

Belize can also bolster cultural and social tourism with local communities, including extended jungle treks



Waterfall in Stann Creek, Belize. Photo by AJ Felson

and engaging in Maya cultural agro-eco-tourism adventures, like chocolate-making and harvesting activities. Integrating these carefully crafted activities into the BTB's future tourism planning is advisable. Inland regions provide opportunities for cycling, mountain biking, trekking, caving, rock climbing, and bungee jumping. Creative approaches, such as swimming in rivers with caged crocodiles or observing monkeys from tree perches, could be explored.

Moreover, the BTB can invest in media related to Eco-adventure Tourism, harnessing cost-effective consumer technology like head-mounted cameras, social networking, and GPS to document and promote Belize's adventure travel experiences to a global audience. Targeting women's adventure tourism, especially with an ecological focus, is another avenue to consider. Activities like eco-adventure camping and wildlife watching provide safe and enriching opportunities for touring.

Outside forces requiring upscaled responses

Planning for tourism is always subject to internal and external influences. The NSTMP considered many of these influences. However, the growing pattern of threatening phenomena and vulnerabilities over the last decade cannot be ignored or avoided. Several factors that need to be considered as part of the NSTMP Addendum include:

Climate Change

Climate change and other environmental threats are increasingly evident and influential across Belize, and the wider Central American and Caribbean regions. These impact the livelihoods and conditions of people in Belize and the viability of the place as a visitor destination. The 2023 Update confronts this threat through careful climate adaptation planning, recording of vulnerable destinations and risk mitigation. A multi-sectoral approach (beyond tourism planning) embracing community and place resilience is required.

Global Disruptors

The Global Pandemic (COVID-19) has had a widespread impact on international and national tourism sectors that will take years to redress. Belize closed its land and air borders in April 2020 and did not fully reopen until mid-2022. Evidence from other tourism destinations indicate a staggered recovery and the emergence of social and economic shocks or repercussions that may further distort the travel industry and tourism patterns. The 2023 Report seeks to reduce any over-reliance on shallow markets or sectors in the face of these global disruptors. Belize has the diversity and breadth of assets to do so.

Shifting Tourism Markets

Tourism markets and visitor expectations are in flux. These are important considerations in contemporary tourism planning and investment. Rapid shifts in global (social) media and tourism promotion campaigns increasingly shape new user behaviours. In this rather dynamic context, the 2023 Update highlights emerging international, regional, and national trends, and the 'value propositions' of short stay mass (cruise) tourism, longer duration trips, and everything in between.

Shared Economy

The shared economy has been growing rapidly in Belize in recent years, particularly in the accommodation sector. Platforms like Airbnb and Vrbo allow homeowners to list their homes or apartments for rent to tourists, providing a more affordable and sometimes authentic alternative to traditional hotels. This has been a boom for the tourism industry in Belize, and attracted more visitors to the country. The 2030 Update highlights the opportunity to generate more jobs and income for Belizeans as a host community to accommodate visitors and to promote tourism for the country.

Country to local scale opportunities for action

There are also important steps that government agencies and tourism administrators, operators and hosts can employ to mitigate vulnerabilities and concurrently improve the tourism dividend. Informed spatial planning and governance of regions, towns, villages, landscapes, seascapes, and destinations, through robust engagement can align tourism goals with smart investments in infrastructure, urban growth and park development that supports bespoke tourism product design and delivery. These include:

Manage the Place

Belize has an astounding breadth of diverse 'places' that can serve as visitor destinations. Judicious site-specific spatial planning and 'urban and land management' can increasingly determine its look, feel and function (and health) and the degree to which they support good visitor experiences. Contemporary destination planning (urban, natural, cultural, or hybrids) prioritises places of well-being and authenticity, highlighting the harmonious relationship between nature and culture. The 2023 Update confirms such through a national spatial (national and regional) framework and a 'place-management' response.

Visitor Experiences

Tourism success is determined in part the quality and authenticity of visitor experiences. Belize has a remarkable 'breadth' of tourism options enticing a wide consumer base, from short stays (day trip Cruise groups) to long-term supported tours (remote Caye or maritime soft adventure). While the condition, presentation, and accessibility to attractions is critical, the design, delivery, and growth of diverse new (and innovative) tourism products (i.e. individual or group tours, services, visits, accommodation, and food entertainment, etc.) is equally important. Physical product development for Belize is poised to undergo significant growth and transformation in the next 5-7 years.

With a strong emphasis on capacity development, the country is dedicated to enhancing its capabilities and expertise. This strategic focus aims to foster the creation and refinement of new product areas while also consolidating existing ones. Among the key sectors targeted for development are culinary, music, festivals, and sports. By investing in these areas, Belize is actively nurturing its unique cultural heritage and positioning itself as a thriving hub for innovative and diverse physical products. The 2023 report recommends tourism product development based on the mantra that visitors are encouraged to 'stay longer and spend more.'

Tourism Governance

Governance in the tourism sector is challenging, and requires coordination between public administrations (destination managers), the private sector (services providers), and local (host) communities. In Belize, this falls under the auspices of the Belize Tourism Board within the Ministry of Tourism to 'develop, market, and implement' tourism programs for the benefit of Belize, Belizeans, and tourists. The 2023 Report endorses this regulatory structure and identifies opportunities for improved local providence in key locations (to offset centralised determination) and designation of Special Tourism Zones (STZs) for targeted controls and management to ensure long-term tourism and conservation values.

Looking ahead to the 2030 master plan

The tourism sector in Belize has exceptional prospects up to 2030, with the potential to attract a diverse international and regional audience. It stands out with its unparalleled breadth and quality of environmental and cultural assets, maintaining its integrity amidst the challenges of over-tourism that have affected many other destinations in the region. Preserving this rarity is of paramount importance.

The global tourism pause during the 2020-2022 COVID-19 pandemic offered a valuable opportunity for reflection on the future of tourism in Belize. While the desire for a return to full capacity is evident, there is now a clear recognition of the destination's vulnerability and the need to carefully balance ambitious visitor growth with the protection of its pristine natural and cultural values. This challenge will be a focal point for the next decade, emphasizing judicious growth in specific areas and a keen focus on the interplay between tourism and conservation.

Additionally, there is a pressing need to strengthen the existing governance framework by establishing a more comprehensive structure. This involves formalizing entities like Tourism Advisory Councils, as well as committees at the regional and destination levels, while appointing Destination Level Coordinators to enhance coordination and management.



Blue Hole, World Heritage UNESCO dive site. Photo by Becky K. Scott.

Priority Updates around Tourism Investments and Products

This is a non-exhaustive list of areas to pursue as part of the upcoming master plan. They are informed by interviews and discussions with Belizean representatives. They are intended as feasible opportunities to explore for the Belizean market over the next decade. We recognize that products, services, and experiences will emerge in the intervening period, including eco-tourism, and allied conservation-based (marine and terrestrial) tourism initiatives.

- Community-based tourism with a focus on maximizing benefits to minority host communities
- Cultural tourism that showcases the diversity of peoples, local history, customs, and practices.
- Food tourism, developing national agriculture, and aquacultural produce and cuisine.
- Event tourism for festivals, sport, entertainment, business, and local interest functions.
- Light touch soft adventure including varied durations of guided caving, trekking, and cycling.
- Marine adventure comprising sustainable and controlled recreational fishing, and reef diving.
- Small cruise tourism (<300 suites) supporting longer stays in multiple offshore locations.
- Recreational and competitive sailing tourism operable in bays, lagoons, and shoreside.
- Educational 'immersion' tourism for international, and regional student groups.
- Tourism training academy established in partnership with Belize City ITVET, Ministry of Education, and Florida International University.

Further evaluation of major tourism development initiatives that benefit Belize

CONTEMPORARY THEMES

The NSTMP review process, engagement with stakeholders, and fieldwork observation in 2023 have highlighted an important suite of contemporary tourism ‘issues’ that may be addressed in the 2023 Update. These are siloed into the following 8 Themes – with corresponding objectives:

Urban Settlement & Management

Services and Amenities: Ensure tourism towns and destinations meet visitor expectations and international standards for basic amenities, services and infrastructure.

Security and Resilience: Prepare tourism settlements for the increasing threat from natural phenomena, pandemics and economic downturn with defensive land planning practices and risk mitigation.

Urban/Rural Interface: Improve urban and land planning of tourism development in a sequential manner and minimize harm to natural and agricultural surroundings.

Coastal Conditions & Resilience

The Mangrove Fringes: Bring the rare coastal/lagoon mangrove narrative to the forefront of the national and international tourism experience.

Sargassum and Weed Infestation: Work regionally to confine the impacts of coastal infestation and minimize impacts on sensitive tourism destinations.

Development Intrusion: Acknowledge coastal vulnerability and strictly enforce tourism development controls (height/setbacks) at interfaces and greater ‘public’ accessibility.

Marine, Reef, and Caye Condition

Sustainable Life Expectancy of Reef: Feature the UNESCO-recognised reef system as a world-class tourism experience and confine locations for visitor contact

Marine Quality/Biosphere: Increase awareness of both environmental and recreational qualities of ocean/lagoon settings, benchmarking sustainable nautical practices.

Caye Carrying Capacity: Celebrate the environmental uniqueness of the Cayes, adopting a ‘remoteness’ approach of quotas and recovery seasons.

National Parks and Protected Areas (Terrestrial Areas)

Management/Controls in National Parks: Widen the international and national tourism offer with increased profile to terrestrial parks and reserves within close range

Habitat Erosion: Recognise the uniqueness of protected areas for their integrity as ecosystems and habitats to showcase to a wider eco-tourism market.

System Disconnection: Breach gaps between existing reserves and develop tourism products that feature the diversity of high and lowland environments.

Cultural Attractions and Archaeological Sites

Maya Archaeological Sites – Regional Approach: Forge strong (regional) connections between archaeological sites and develop tourism network products to match.

Approach and Access: Tailor tourism experiences at Maya sites and Garifuna cultural group through a more in-depth sequential (controlled), safe passage to, within, and between places.

Management and Interpretation: Widen visitor understanding of the diversity of in-county cultural narratives and improve recognition of contemporary ‘living’ cultures.

Trunk Infrastructures and Connectivity -Accessibility

Road and Marine Access: Advance ‘connecting corridor’ strategies that support investment and tourism flows between existing designations.

Sewage and Wastewater: Encourage innovative (and self-sufficient) approaches to water and waste management in vulnerable tourism towns and destinations.

Information & Technology: Improve the use and availability of new technologies with internet-broadband reliability, emerging tourism-related apps, and emergency/risk beacon systems to enhance the host community and visitor experience.

Air Services: Widen the capacity of domestic tourism service providers from the central hub and increase the potential for growth from regional nodes to outlying destinations.

Regional Linkages and Frontier Interfaces

Air, Sea and Vehicle pathways: Increase options for visitor transit (land, sea, air) within and outside the country, anchored in a tourism framework of hubs, nodes, and corridors.

Landing Points/Port Opportunity: Control the existing cruise hubs to be complemented with private craft/commercial fishing marinas at coastal tourism nodes

Cruise Ships: Moderate the impact of cruise stops (short stay-mass tourism) and negotiate with operators for more sustainable (smaller craft/longer duration) options.

Tourism Governance Management and Marketing

Selling Belize: Better plan and manage tourism destinations (towns, reserves, sites and services) to ensure that the ‘marketing promise’ is genuinely delivered.

Training and Capacity: Boost the capability of tourism service providers through widespread training, resource building and monitoring to meet international standards.

Sectors and Circuits: Enable user (administrators, visitors, operators) to understand the National Tourism Framework as a foundation for sustainable growth.

Within this National Framework are 10 key spatial ‘moves’ that reinforce the 2023 Update stated Vision, Goals, and Thematic Objectives. These are:



STRENGTHEN GATEWAYS

Better define the appearance, profile, and function of a confined number of tourism points of entry (air, sea and land) and the Belize City Hub in particular as first contact for visitors and a showcase for the national offer.



PROTECT COASTAL FRINGES

Designate, protect, and monitor the very special qualities of intact coastal and lagoon settings as a marine nursery and as a destination for environmental tourism and allied conservation practices.



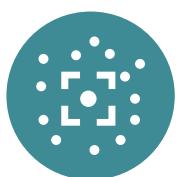
FEATURE 5 KEY NODES

Focus management, investment and marketing in each of the designated tourism nodes (accommodating varying degrees of changes subject to vulnerabilities) and apply Special Tourism Zone regulations.



MANAGE URBAN GROWTH

Carefully control urban population, development growth and urban hub capacity to maintain the integrity of environmental assets (marine, coastal, and terrestrial) and better administrate, plan, and develop tourism and recreation within jurisdictions.



BETTER DISTRIBUTE ACTIVITIES

Destinations in Belize are disproportionately ‘concentrated’ on the coast -cayes and more must be made of outstanding inland assets, with potential tourism experiences that ‘unlock the interior’.



PROMOTE CORRIDOR JOURNEYS

Tourism experiences are not just about the destination but the journey – as such, designated ‘corridors’ are a place for image and amenity improvements and new complementary investments/attractions.





DESIGN DIVERSE CIRCUITS

Strengthened local tourism 'loops' of varied themes and durations are essential in and around hubs and nodes to widen the breadth of visitor experiences, supported by infrastructure (roads-trails) and product development (maps-guides).



CONSERVE SPECIAL AREAS

Build on the already substantial networks of marine, coastal and terrestrial natural reserves and conserve special intangible factors (ie cultural profile, rural regions & heritage settings) to broaden the tourism capability.



DESIGNATE TOURISM ZONES

Adopt special regulations in designated locations (i.e. Nodes) for site specific control of investments, projects of public merit, and urban-environmental protections to avoid unsympathetic and/or incomplete tourism (over)development.



SPATIAL TOURISM INTEGRATION

Embrace a holistic approach to land planning and management in tourism destinations with due regard for corresponding climate change and urban development spatial considerations.

The National Spatial Framework is further supported by 6 Sub National Frameworks which encompass the entire geography of Belize and reinforces key moves. Locational themes and observational notes are provided within each Sub-National region.












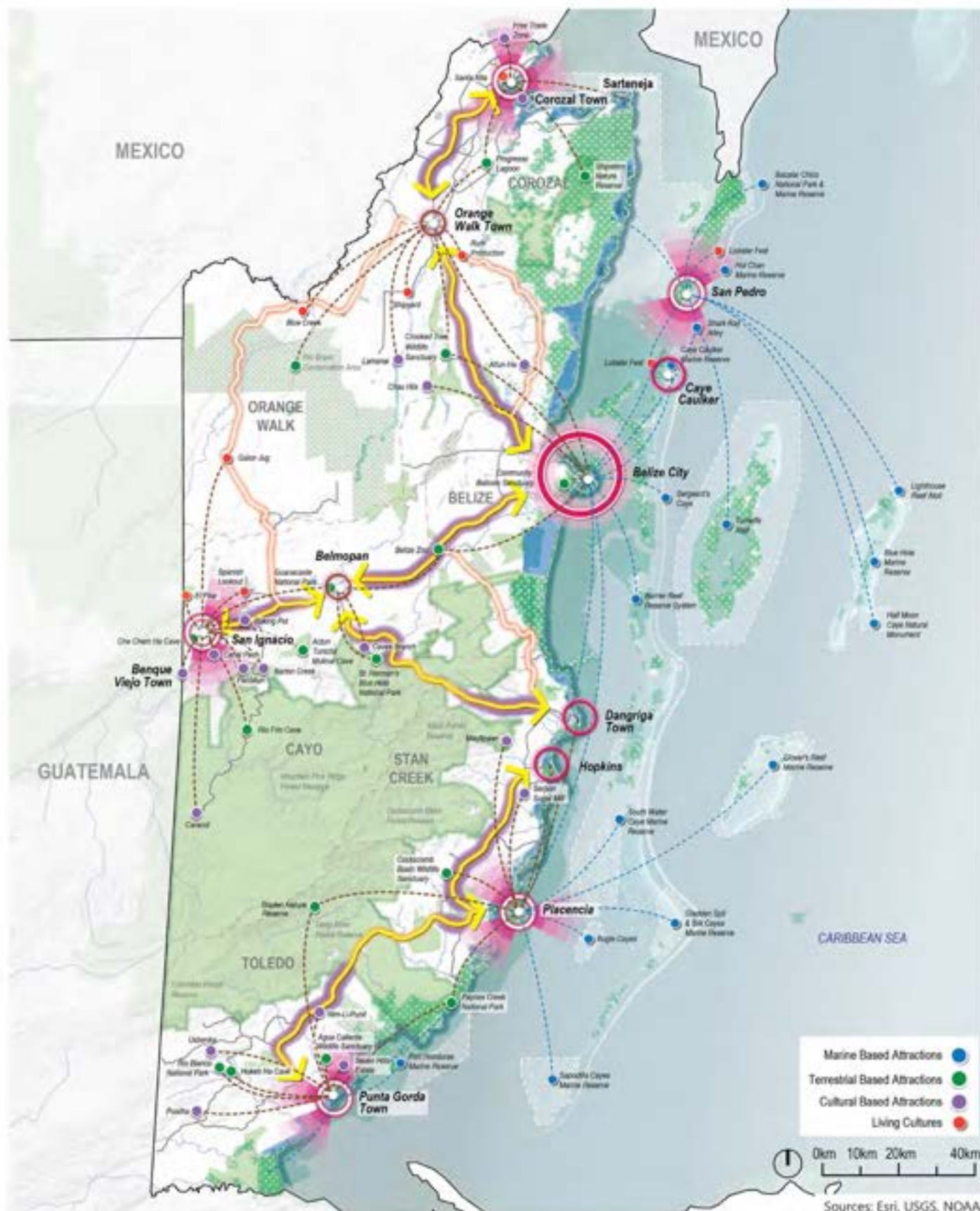
A NATIONAL SPATIAL FRAMEWORK FOR TOURISM

The 2023 Update recommends introduction of a revised physical plan (NSTMP terminology) as a National Spatial Framework to guide decision-making in relation to the oversight and management of tourism destinations. To overcome a disparate arrangement of destinations and diminished visitor experience, a basic spatial framework could be established that can reinforce a ‘holistic and resilient’ tourism growth model.

This could envisage an improved Belize City as a ‘Hub,’ with land corridors or sea and air links as radiating ‘Spokes’ to outlying inland, coastal, and marine based ‘Nodes.’ Each of these places could welcome a broad suite of circuits, loops, and trips that expose a diversity of experiences. Herein lies a foundation for a Tourism Framework that is spatially oriented.

This Framework includes component parts that must be recognised as part of a wider tourism ecosystem (ie elements are not mutually exclusive). The Framework includes the following 7 elements as illustrated:

	ELEMENT	TYPICAL LOCATION	FUNCTION
	Hub	National Urban Centre	Principal point of egress (air/sea). International/national transit gateway.
	Primary Node	Regional Centres	Centres for tourism growth/ management. Launching points for outward travel.
	Secondary Node	Local Townships	Alternative opportunities for growth. Linkages and short stay opportunities.
	Primary Corridor	Main Roads	Experience passages between centres. Opportunities for new products.
	Secondary Corridor	Secondary Roads	Alternative (slow) links to centres. Opportunities for new products.
	Circuit	Pathways to Attractions	Marine routes to destination clusters. Land routes to destination clusters.
	Destination	Attraction Groupings	Marine and Terrestrial. Cultural and Living.



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

NATIONAL STRATEGIC TOURISM SPATIAL FRAMEWORK



Legend

International Boundary	Barrier Reef Edge	Belize City Hub	Opportunities for Tourism Products
District Boundary	Private Protected Areas	Primary Nodes	Marine Based Circuits
Local Roads	Terrestrial Protected Areas	Secondary Nodes	Land Based Circuits
Domestic Waterbodies	Forest Buffer Zone	Service Nodes	Coastal Fringe: Sea Grasses
Waterways		Primary Road Corridors	Coastal Fringe: Vulnerable Mangrove Areas
Marine Protected Areas		Secondary Road Corridors	Coastal Fringe: Vulnerable Flooding Areas

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

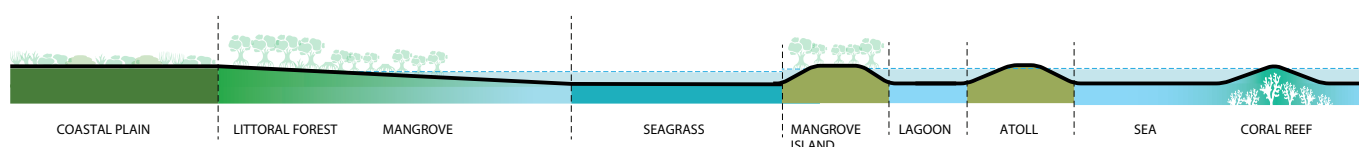
Sub-National Map 1: Corozal/ Orange Walk

Key Locational Themes with Governance Support

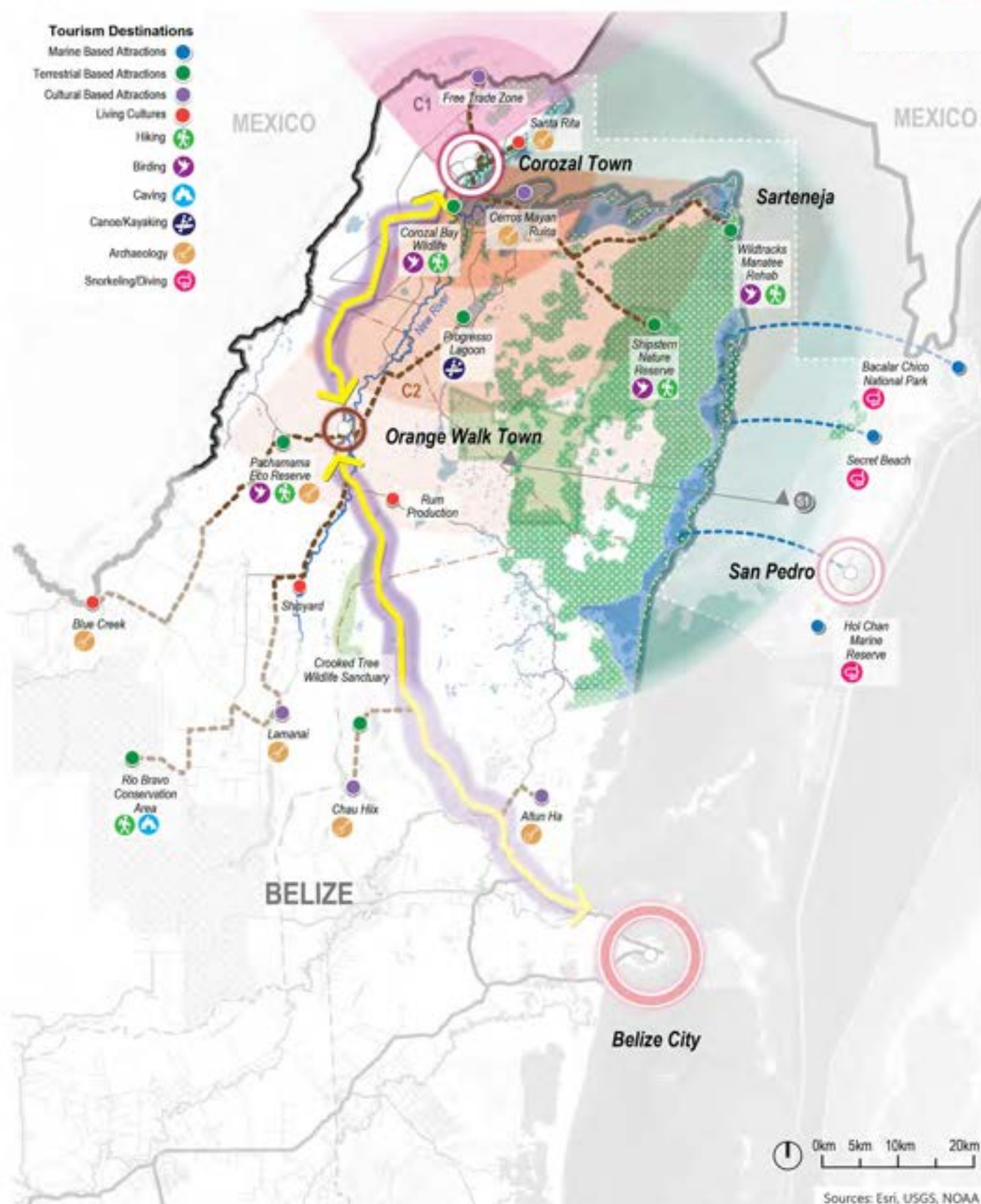
- Strengthen corridor experience between townships.
- Improve access and awareness of coastal fringe.
- Develop cultural corridors between Corozal Town and Sarteneja.
- Devise local circuits around and between townships.
- Promote Corozal Town as frontier egress.
- Environmental management of promontory and fringe.

Key Tourism Opportunities

- Feature Corozal Bay as recreation opportunity.
- Agricultural and productive landscape potential.
- Coastal/Estuary fringe conservation linkages.
- Promote linkages between Corozal Bay Wildlife Sanctuary, Shipstern and Bacalar Chico.
- Foster Sarteneja Alliance for Conservation Development and management of Corozal Bay MPA.
- Opportunity to develop northern area as marine conservation haven for eco-tourism.



Cerros Maya Archaeological Reserve, near Corozal Belize. Photograph by Alex Felson



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

COROZAL:
SUB-NATIONAL TOURISM SPATIAL FRAMEWORK



Legend

International Boundary	Marine Protected Areas	Belize City Hub	Opportunities for Tourism Products
District Boundary	Terrestrial Protected Areas	Primary Nodes	Marine Based Circuits
Local Roads	Forest Buffer Zone	Service Nodes	Land Based Circuits
Domestic Waterbodies	C1 - International	Primary Road Corridors	Coastal Fringe: Sea Grasses
Waterways	C2 - Domestic	Secondary Road Corridors	Coastal Fringe: Vulnerable Mangrove Areas
			Coastal Fringe: Vulnerable Flooding Areas

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

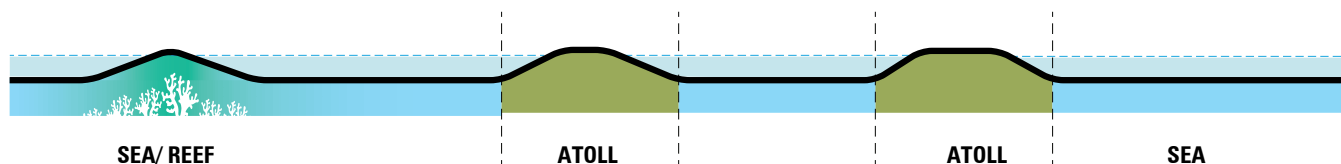
Sub-National Map 2: San Pedro & Context

Key Locational Themes with Governance Support

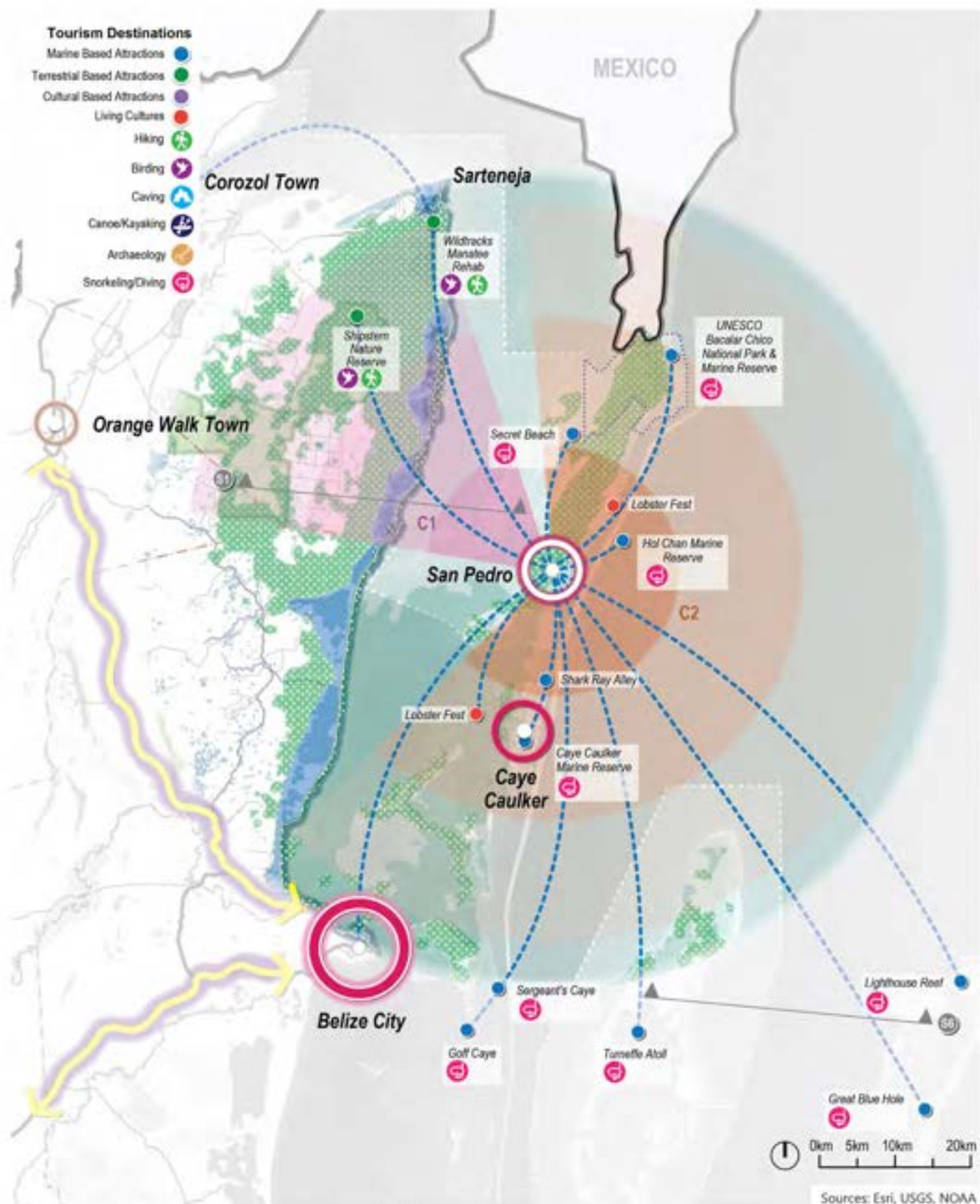
- Urban/environmental management of San Pedro.
- Township waste water/infrastructure review.
- Improved promotion of Land/Marine Park context.
- Explore potential Corozal Bay access and links.
- Better manage marine craft access/impacts.
- Sustainable Atoll/Reef management/control.
- Establishment of a Special Tourism Zone to support capacity development of municipal governments.

Key Tourism Opportunities

- Traffic congestion/ management/pedestrian comfort.
- Development management/scale/services capacity.
- Access and awareness of UNESCO-registered assets.
- Establish collaboration between BTB, and CZMAI to combine tourism with conservation strategies.
- Generate resources supporting conservation, monitoring, and adaption.



San Pedro Town, Ambergris Caye, Belize. Photo by AJ Felson



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

SAN PEDRO:
SUB-NATIONAL TOURISM SPATIAL FRAMEWORK



Legend

International Boundary	Barrier Reef Edge	Belize City Hub	Marine Based Circuits
District Boundary	Terrestrial Protected Areas	Primary Nodes	Coastal Fringe: Sea Grasses
Local Roads	Forest Buffer Zone	Secondary Nodes	Coastal Fringe: Vulnerable Mangrove Areas
Domestic Waterbodies	C1 - Land	Service Nodes	Coastal Fringe: Vulnerable Flooding Areas
Waterways	C2 - Water	Primary Road Corridors	UNESCO World Heritage Property
Marine Protected Areas		Opportunities for Tourism Products	

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

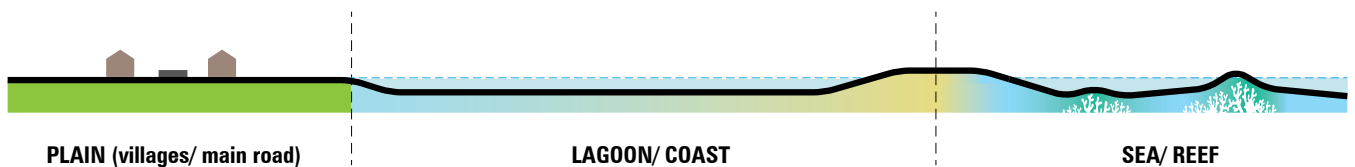
Sub-National Map 3: Belize City & Context

Key Locational Themes with Governance Support

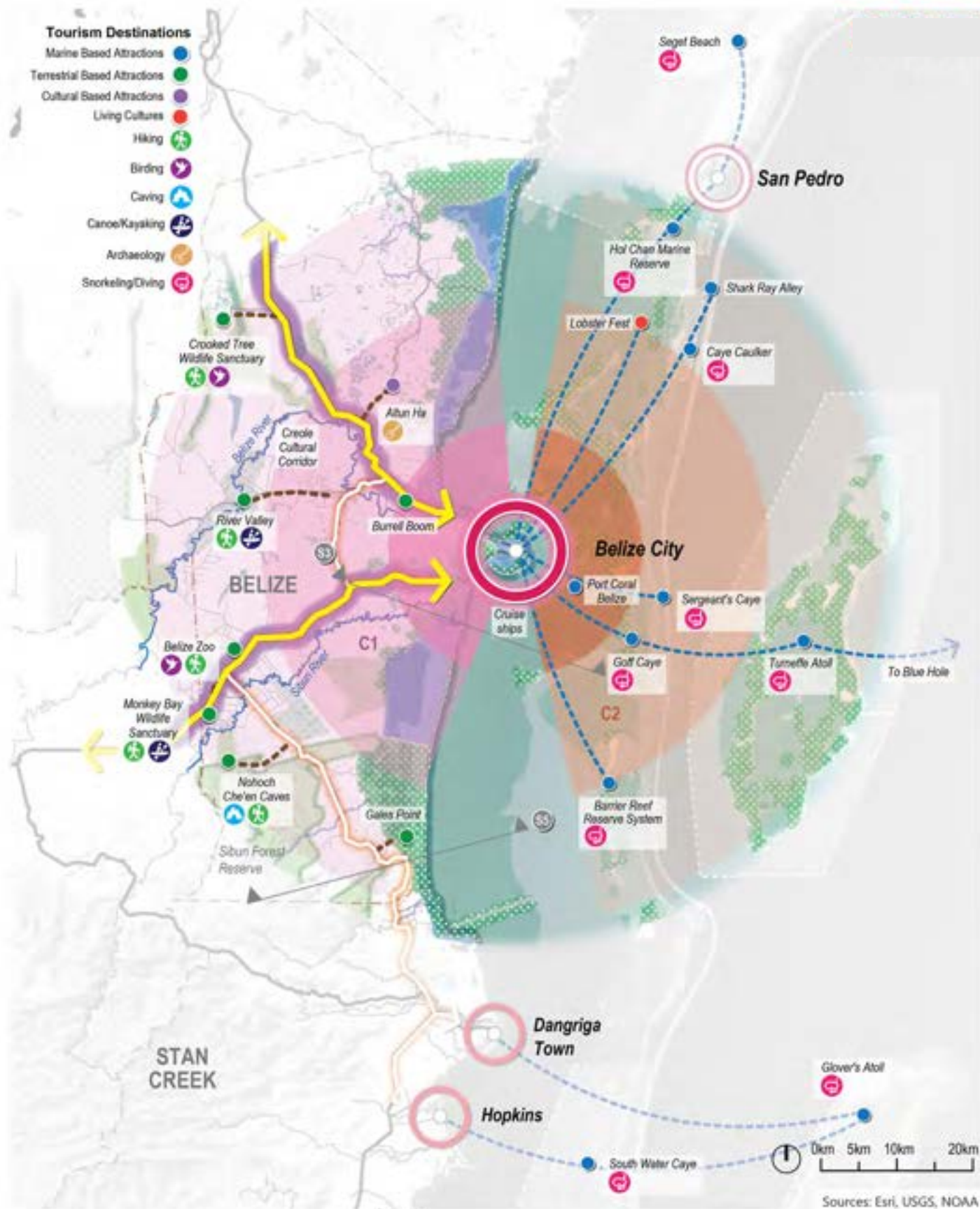
- Strengthen Belize City role as Transit Gateway.
- Manage Air, Land, and Sea Ports Egress.
- Identify opportunities for Urban Amenity Upgrades.
- Promote opportunities for enhanced entertainment and night life through mixed use developments.
- Highlight lagoon/mangrove fringe conservation.
- Seamless linked access to outlying destinations.
- Devise local diverse 'day trip' circuits.
- Better control urban growth and limit superstructures were unnecessary.

Key Tourism Opportunities

- Belize City Urban Amenity/Visitor Services.
- Cruise Ship/Visitor Management/Congestion.
- Waterfront opportunities/Sea edge resilience.
- Support historic housing renewal and redevelopment to create signs that provide a history of Belize.



Belize City from the air. Photo by AJ Felson



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

BELIZE CITY:
SUB-NATIONAL TOURISM SPATIAL FRAMEWORK



Legend

District Boundary	Barrier Reef Edge	Belize City Hub	Marine Based Circuits
Local Roads	Terrestrial Protected Areas	Primary Nodes	Land Based Circuits
Domestic Waterbodies	Forest Buffer Zone	Secondary Nodes	Coastal Fringe: Sea Grasses
Waterways	C1 - Land	Primary Road Corridors	Coastal Fringe: Vulnerable Mangrove Areas
Marine Protected Areas	C2 - Water	Secondary Road Corridors	Coastal Fringe: Vulnerable Flooding Areas
		Opportunities for Tourism Products	

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

Sub-National Map 4: San Ignacio & Context

Key Locational Themes with Governance Support

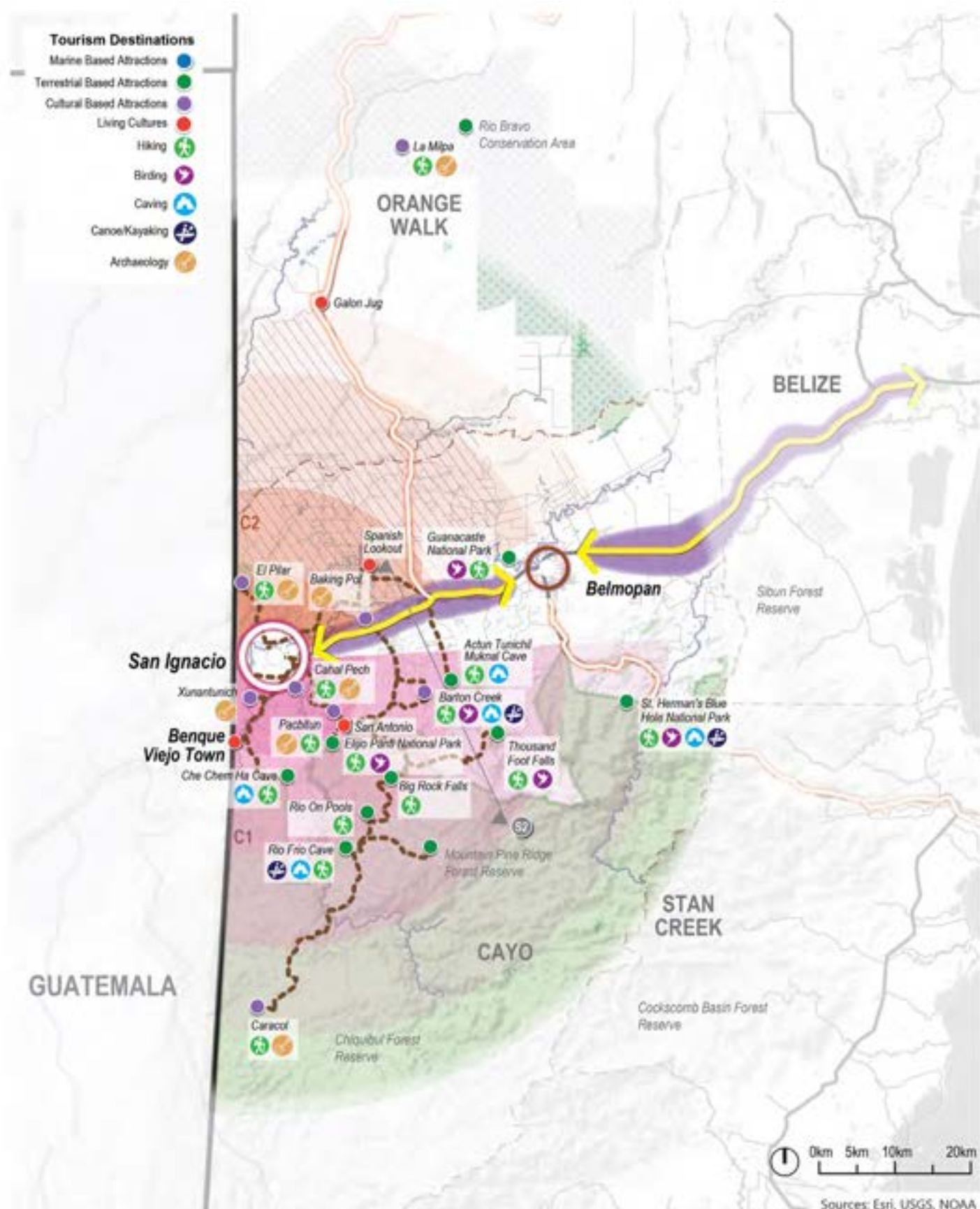
- Encourage corridor connections from Belize City.
- Enhance San Ignacio Township Amenity/Riverside.
- Consider connections to wider Maya sites.
- Potential for strengthened living culture attractions.
- Environmental protections for mountain terrain.
- Potential for Birding Centre development.

Key Tourism Opportunities

- Trekking/Hiking access to MPR and forest settings.
- Caracol road access/impacts UhX management.
- Xunantunich traffic management and village link .



Caracol Archaeological Reserve, Photo by AJ Felson



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

SAN IGNACIO:
SUB-NATIONAL TOURISM SPATIAL FRAMEWORK



DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

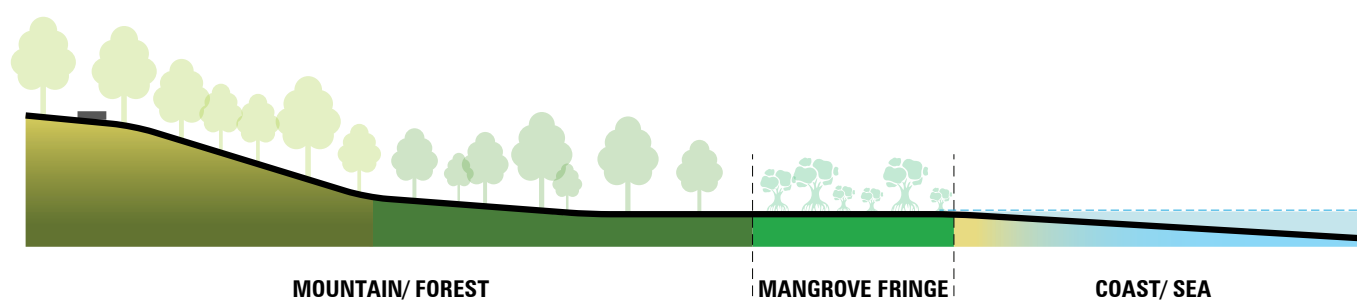
Sub-National Map 5: Punta Gorda & Context

Key Locational Themes with Governance Support

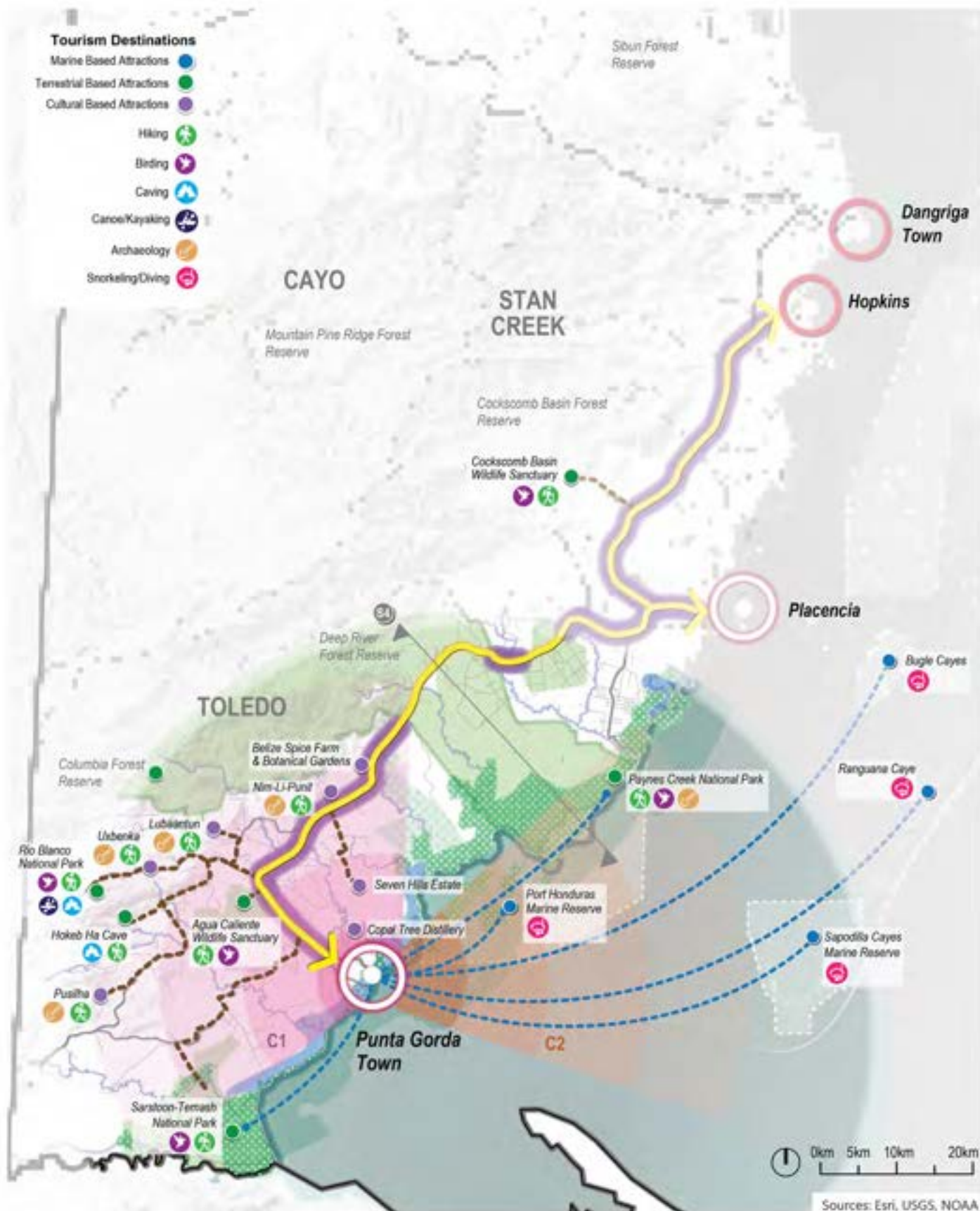
- Highlight PG as gateway to the south.
- Devise local diverse 'day trip' circuits.
- Ensure conservation practices to delicate fringe.
- Strengthen journey/corridor alignment to linked towns.
- Potential for marine UhX terrestrial infrastructure development to facilitate new attractions.

Key Tourism Opportunities

- Walking/cycling/trekking connections between attractions.
- Adventure tour potential to mountain ranges.
- PG urban amenities, information. and events.



Maya site where chocolate is made, Toledo Village. Photo by AJ Felson



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

PUNTA GORDA:
SUB-NATIONAL TOURISM SPATIAL FRAMEWORK



Legend

International Boundary	Barrier Reef Edge	Primary Nodes	Land Based Circuits
Local Roads	Terrestrial Protected Areas	Secondary Nodes	Coastal Fringe: Sea Grasses
Domestic Waterbodies	Forest Buffer Zone	Primary Road Corridors	Coastal Fringe: Vulnerable Mangrove Areas
Waterways	C1 - Land	Opportunities for Tourism Products	Coastal Fringe: Vulnerable Flooding Areas
Marine Protected Areas	C2 - Water	Marine Based Circuits	

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

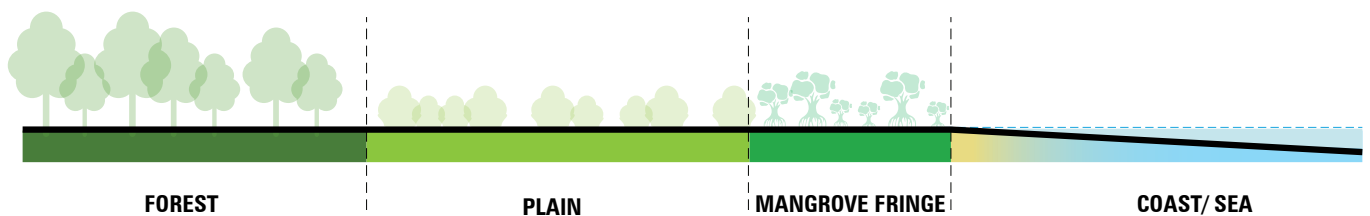
Sub-National Map 6: Placencia, Hopkins, Dangriga

Key Locational Themes with Governance Support

- Widen attraction connections to land and sea sites.
- Improve Placencia urban amenity and water interface.
- Strengthen journey/corridor alignment to linked towns.
- Ensure conservation practices applied to delicate fringe.
- Support the role of Special Development Zones.
- Explore solutions to Waste Water, Solid Waste and Waste Management.

Key Tourism Opportunities

- Designate Placencia as the nautical tourism centre for Belize Village management and development controls.
- Public space and waterfront access/events.
- Links between sea and lagoon and associated boat access.



Silk Caye near Placencia, Belize. Photo by AJ Felson



UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

PLACENCIA:
SUB-NATIONAL TOURISM SPATIAL FRAMEWORK



Legend

District Boundary	Barrier Reef Edge	Opportunities for Tourism Products	Marine Based Circuits
Local Roads	Terrestrial Protected Areas	Primary Nodes	Land Based Circuits
Domestic Waterbodies	Forest Buffer Zone	Secondary Nodes	Coastal Fringe: Sea Grasses
Waterways	C1 - Land	Primary Road Corridors	Coastal Fringe: Vulnerable Mangrove Areas
Marine Protected Areas	C2 - Water	Secondary Road Corridors	Coastal Fringe: Vulnerable Flooding Areas

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

MASTER PLAN ACTIVITIES: 2030 UPDATE

The foundation NSTMP and more recent review² including stakeholder engagement and fieldwork³ highlights the complexity and dynamic nature of the tourism system, in particular in Belize where (according to 2022 reports) 'tourism's contribution to GDP is now over 50% and tourism employs 22% of all those employed'.

While a robust Spatial Framework (Physical Plan) is beneficial, many things need to be working well at a granular level for the system as a whole to prosper.

The following outline of 2023 Update - 80 objectives sets out 'how' to achieve the intended outcomes.



URBAN SETTLEMENT & MANAGEMENT



COASTAL CONDITIONS & RESILIENCE



MARINE REEF & CAYE CONDITION



NATIONAL PARKS & PROTECTED AREAS



CULTURAL ATTRACTIONS & ARCHEOLOGICAL SITES



TRUNK INFRASTRUCTURE & CONNECTIVITY



REGIONAL LINKAGES & FRONTIER INTERFACES



TOURISM MANAGEMENT & MARKETING



01.

URBAN SETTLEMENT & MANAGEMENT

The look, feel and function of Belizean cities and townships is a pertinent tourism theme. While many of the nationally important attractions are natural or environmental destinations, the country's cities and towns are often the portals to outlying locations, and in some cases destinations in their own right.

- Services and Amenities (S&A)
- Security and Resilience (S&R)
- Urban/Rural Interface (U&R)

ACTIVITIES

1.1	S & A	Achieve orderly and sequential urban growth and/or tourism development of cities, towns and tourism centres.
1.2	S & A	Better control new tourism development within towns in visually sensitive locations.
1.3	S & A	Address traffic congestion and pedestrian comfort and amenity in tourism destinations.
1.4	S & A	Improve reticulated utilities, services and infrastructure in urban and tourism growth areas.
1.5	S & A	Enhance provision of and access to public space, parklands and natural experiences in urban precincts.
1.6	S & R	Enhance the resilience of established urban settlements in vulnerable (low lying, coastal or floodplain) location .
1.7	S & R	Ensure the (real and perceived) safety and security of all visitors (at day and night) in tourism towns is prioritised.
1.8	U & R	Showcase distinctive urban-historic-cultural-natural assets and experiences in tourism township areas.
1.9	U & R	Protect the important peri-urban fringe from development encroachment where agricultural and/or environmental conditions occur.
1.10	U & R	Improve the image, presentation and functional attributes (i.e. Public realm quality, development standards, Urban public transit) of urban areas.



02.

COASTAL CONDITIONS & RESILIENCE

The Belizean coastline, coral reef and the array of Ocean Cayes, islands, and peninsulas are a primary attraction in an international, national, and regional context. The linear coastline (somewhat protected by the outlying linear reef) is a critical edge where a coexistence of natural and urban pressures is compounded. The Belizean coast is typically where urban settlement proliferates, together with established lagoon conditions and drainage outfall from higher inland ground. The coastline here (and elsewhere) is a particularly delicate environment.

- The Mangrove Fringes (MF)
- Sargassum and Like Infestation (SI)
- Development Intrusion (DI)

ACTIVITIES

2.1	MF	Designate, protect and strengthen existing coastal/lagoon mangrove forests (and rehabilitate where required).
2.2	MF	Identify and showcase locations for mangrove forest restoration for ecological and coastal fringe resilience.
2.3	MF	Better understand the influence of climate change and sea level variation in coastal and lagoon settings (forecast mapping).
2.4	MF	Support revegetation and enhancement of the coastal and lagoon edges through contiguous linear land planning.
2.5	DI	Ensure development is well setback from the coastline/lagoon edge to avoid visual intrusion and potential harm from encroachment.
2.6	DI	Encourage uninterrupted public accessibility to beachfronts and the coastal/lagoon fringe for improved tourism amenity and activation.
2.7	DI	Minimize the intervention of structures (jetties, groins and other projections) into coastal or lagoon flat.
2.8	SI	Manage and monitor water quality (and waste management) in the coastal threshold and associated lagoons.
2.9	SI	Improve the control and regulation of nautical recreation in the coastal and lagoon areas.
2.10	SI	Establish a coordinated national response to Sargassum infestation on Belize coast and Cayes with public and private input.



03.

MARINE, REEF & CAYE CONDITION

The outlying eastern cayes, islands, and reef in Belize within the Caribbean Sea are special places that are globally regarded for their uniqueness (UNESCO World Heritage Inscription, 1996) – noting ‘the coastal area of Belize is an outstanding natural system consisting of the largest barrier reef in the northern hemisphere, offshore atolls, several hundred sand cayes, mangrove forests, coastal lagoons, and estuaries’. Like other low-lying and coastal contexts, they are highly sensitive to change.

- Sustainable Life Expectancy of Reef (SLE)
- Marine Quality/Biosphere (MQB)
- Caye Carrying Capacity (CCC)

ACTIVITIES

3.1	SLE	Designate, protect and strengthen the UNESCO reef system and employ practices that minimize harm of tourism intervention/contact.
3.2	SLE	Undertake research and monitoring to better measure the impact of climate and water temperature change of reef systems.
3.3	SLE	Policing of illegal fishing and related behaviours that compromise reef & biosphere conditions.
3.4	SLE	Acknowledge the critical role of caye and reef management by NGO and seek a coordinated approach to tourism practices.
3.5	CCC	Control and monitor major boating (cruise and other private craft) routes to avoid harm to the reef network.
3.6	CCC	Better management of recreation air and boat traffic in and around the reef and cays.
3.7	CCC	Apply carrying capacity measures to public cays with the prospect of visitor quotas and seasonal limits.
3.8	MQB	Recognise the delicate environmental condition of cays and establish common development regulations.
3.9	MQB	Review farming, aquaculture and other land use impacts and explore sustainable aquaculture.
3.10	MQB	Promote and educate tourism industry (and visitors) on sensitivity of reef and biosphere conditions.



04.

NATIONAL PARKS & PROTECTED AREAS

Belize supports an extensive network of protected areas distributed broadly across terrestrial and marine areas. This includes some 17 National Parks, 16 Forest Reserves, 3 Nature Reserves, 15 Archaeological Reserves, 7 Wildlife Sanctuaries and 8 Marine Reserves. Furthermore, a suite of private reserves complements these arrangements. Exposure, access, and connectivity between these related ecosystems is an important factor.

- Management/Controls in National Parks (NP)
- Habitat Erosion (HE)
- System Disconnection (SD)

ACTIVITIES

4.1	NP	Enhance the profile and awareness of national parks and protected areas and environmental or ecological values.
4.2	NP	Improve visitor access (roads or alternative river, lagoon, or sea craft) to national parks and protected areas for greater convenience.
4.3	NP	Strengthen and unify national park and protected area management and tourism services (i.e. VIS/branding).
4.4	NP	Develop hierarchy of national park and protected area status – as Protected/Passive/Active.
4.5	NP	Highlight opportunities for Adventure Tourism (for multiple day guided visits to mountain peaks, ridges and passes).
4.6	HE	Avoid erosion of national park and protected areas environmental or ecological values through incursion by development.
4.7	HE	Carefully monitor and manage weed species and other infestations in terrestrial forests and reserves to protect integrity and diversity - for an improved visitor integrity.
4.8	SD	Explore the potential for a 'systems approach' to national parks and protected areas oriented around drainage catchments.
4.9	SD	Develop tourism products oriented specifically around connected national parks and protected area systems (trekking, cycling, and kayaking).
4.10	SD	Evaluate potential for low profile accommodation and like commercial concessio -based facilities in selected locations.



05.

CULTURAL ATTRACTIONS & ARCHEOLOGICAL SITES

The Maya heritage of Belize and surrounding countries (Mexico/Guatemala and beyond) is a key tourism theme and an attraction that is somewhat under-utilised within a natural context. Important archaeological reserves are scattered across the nation, with concentrations along designated traditional pathways and geographies. While there is considerable capacity for improved exposure and visitation to sites, the management of these assets (visitor control and site rehabilitations) is critical. There are also opportunities to highlight 'other' contemporary Belizean cultures through showcasing local customs.

- Maya Archaeological Sites – Regional Approach (MAS)•
Approach and Access (AA)
- Management and Interpretation (MI)

ACTIVITIES

5.1	MAS	Advance a national strategy for a unified/coordinated approach to the tourism management of Maya archaeological sites.
5.2	MAS	Develop a 'systems' approach with designated regional tourism linkages between a hierarchy of Maya (historic and living cultural) sites.
5.3	MAS	Strengthen 'national' standards for archaeological rehabilitation/restoration and associated tourism interpretation/information.
5.4	AA	Improve the visitor experience at archaeological sites with respectful and equitable controlled access, improved safety, and conveniences for all visitors.
5.5	AA	Develop tourism programme of 'connected living cultures' via networks of Indigenous Villages showcasing local customs and practices.
5.6	AA	Grow visitor awareness/education of other living cultures across regions with opportunities to share traditional practices.
5.7	MI	Carefully plan pathways to (and between) archaeological assets, site parking, and infrastructures judiciously.
5.8	MI	Update site planning and tourism development controls for Maya archaeological sites identifying viewsheds, buffers, and wayfindin .



06.

TRUNK INFRASTRUCTURE & CONNECTIVITY

Hard public infrastructure (roads, water, sewer, telecommunications) in Belize is variable, noting improved services and facilities centrally at Belize City, with more constrained infrastructures in outlying settlements and regional areas. The condition of the road network is a key indicator of capable tourism support, facilitating access between established destinations, and a forum for new ‘corridor’ investment. Infrastructure is a key issue in contemplating a resilient tourism context.

- Road and Marine Access (RM)
- Sewage and Wastewater (SW)
- Technology (T)
- Air Services (AS)

ACTIVITIES

6.1	RM	Designate key highways connecting tourism destinations (and other roads) as ‘scenic routes’ for protections, treatment, and activation.
6.2	RM	Evaluate the efficacy of all key routes to support egress under inundation threat and explore raised road strategies as required.
6.3	RM	Minimise the impact of new infrastructure in vulnerable setting - adopt a ‘net gain’ environmental approach avoid-mitigate-offset.
6.4	RM	Advance new connecting main and local road linkages to destinations and ‘circuits’ enabling alternative access (for tourism and resilience).
6.5	SW	Aim to increase potable water storage and sewage treatment in tourism destinations, including new sustainable systems.
6.6	SW	Develop funding models (such as tourism development contributions) to improve investment and maintenance of infrastructure.
6.7	AS	Grow capacity of Phillip Goldson International Airport to support growing tourism arrivals, with improved terminal as primary ‘hub’.
6.8	AS	Enhance international-domestic shuttle services and frequency of access to regional destinations- assess the future role for the Municipal Airport and new suprastructures.
6.9	T	Expand the capability and service of National Information & Technology (Internet) to support wider tourism market and aid communications, emergency management, and climate threats.



07.

REGIONAL LINKAGES & FRONTIER INTERFACES

International and Regional access to Belize is available by designated land, air and seaports with requisite internal routes between destinations. However, the condition and capability of border passage are mixed and long-term enhancement of air and seaport facilities is required to support a growing user market. In an era of greater border/ frontier control (note pandemic repercussion and illegal migration pressures), careful configuration and planning of port of arrival and tourism nodes is necessary.

- Air, Sea and Vehicle pathways (ASV)
- Landing Points/Port Opportunity (LP)
- Cruise Ships (CS)

ACTIVITIES

7.1	ASV	Enhance regional tourism connections to cayes and interior through improved public/private transit– unlocking potential market growth.
7.2	ASV	Work with neighbouring countries to develop international tourism links and fluid cross-border road, sea, and air connections.
7.3	ASV	Consider growing international connections in the southern region to enable improved links to Guatemala and Honduras (air and sea).
7.4	ASV	Strengthen national tourism bus network and services with hub and node terminal locations, supported by roadside stops/amenities.
7.5	ASV	Develop new products based on regional road/trail ‘circuits’ which connect destinations for visitors to stay longer/spend more.
7.6	LP	Encourage sensitively sited and designed marina facilities at coastal nodes only for regional nautical recreation and aquaculture tourism.
7.7	LP	Enhance frequency and competence of public marine (small ferry craft) transit network between hub, nodes, and tourism destinations.
7.8	LP	Limit marine and port growth (in particular, international Cruise Tourism) at national hub and support small craft outward connections.
7.9	CS	Work with cruise industry to encourage longer stay or overnight visitor options for wider touring of the region.



08.

TOURISM MANAGEMENT & MARKETING

Growth in the tourism sector in Belize is heavily reliant upon management by government and inclusive involvement of private sector stakeholders (international, regional and national). To this end, unified and coordinated marketing of Belizean tourism products and internationally benchmarked standards (accommodation, trained staff, services, and facilities) is key to success.

- Selling Belize (SB)
- Training and Capacity: Resources (TC)
- Sectors and Circuits (SC)

ACTIVITIES

8.1	SB	Adopt the Spatial Tourism Framework as a national network of hubs, nodes, and corridors to aid decision-making on planning and investment.
8.2	SB	Identify opportunities for Special Economic or Tourism Zones to be applied to key locations for tourism investment and management.
8.3	SB	Established improved protocols for local village/town council input into national tourism project assessment.
8.4	SB	Avoid the privatization of cayes, islands, and beachfronts, and compulsorily acquire or buy back vulnerable land where possible.
8.5	SB	Develop new/refined evaluation criteria for assessment of tourism development (of define magnitude) – ‘how does it fit and aid Belize?’
8.6	TC	Promote the use of clean energy and sustainable land and management for tourism development and services.
8.7	TC	Focus on development control and compliance by authorities, lifting the standard of tourism development, facilities, and infrastructure.
8.8	TC	Build capacity within the education sector to deliver decentralized tourism training that can engender improved local jobs and services such as tourism training academy.
8.9	TC	Increase capacity of local tourism authorities to manage operator compliance (noise, behaviour, waste).
8.10	TC	Lead a national program for tourism resilience preparedness with focus on hubs, nodes, and corridors.

8.11	SC	Ensure strategic, resilience, and settlement plans are confirmed for each tourism node and linking corridors, confirmed in planning laws.
8.12	SC	Tighten Environmental Effect Statement and like assessment procedures to ensure prioritisation of natural values and climate change issues.
8.13	SC	Establish relationships between government and universities to grow GIS capability in support of resilient tourism development.
8.14	TC	Restore tourism standards program to benchmark with other regions (i.e. ASEAN) and promote information technologies.
8.15	SC	Widen marketing and promotion of Belize for its diversity to global markets – with renewed focus on green-clean-natural immersion.



View of San Pedro, Ambergris Caye, Belize. Source: <https://ambergriscaye.com/wallpaper/art/streetviewcut.jpg>

CONCLUSION

This NSTMP review is squarely focussed on strengthening and refocusing the national attention on the opportunities for tourism growth to 2030. It reaffirms the foundation of the NSTMP and calls on Belizean tourism administrators, operators, and host communities to serve as custodians of a 'rare' place with wide global appeal. There is scope to 2030 for the tourism sector to better recognise and celebrate the deep relationships that exist between its diverse peoples and the land-sea.

Further, the invitation is open to actively promote and deliver more sustainable products that transcend tourism and conservation through eco-tourism and like initiatives that demonstrate climate resilience and a robust environmental platform. This will strengthen Belize's place within the Caribbean region with a unique point of difference and serve as a sound foundation for an innovative National tourism industry into the 2030s.



View of the pier in Sarteneja. Photo by AJ Felson

A photograph of a sailboat with a tall mast and rigging, carrying several people, sailing on a deep blue ocean under a clear sky. The boat is white with a blue stripe and is moving towards the right, leaving a white wake. The sky is a clear, bright blue with a few wispy clouds. The water is a deep, dark blue with small whitecaps.

PART 4

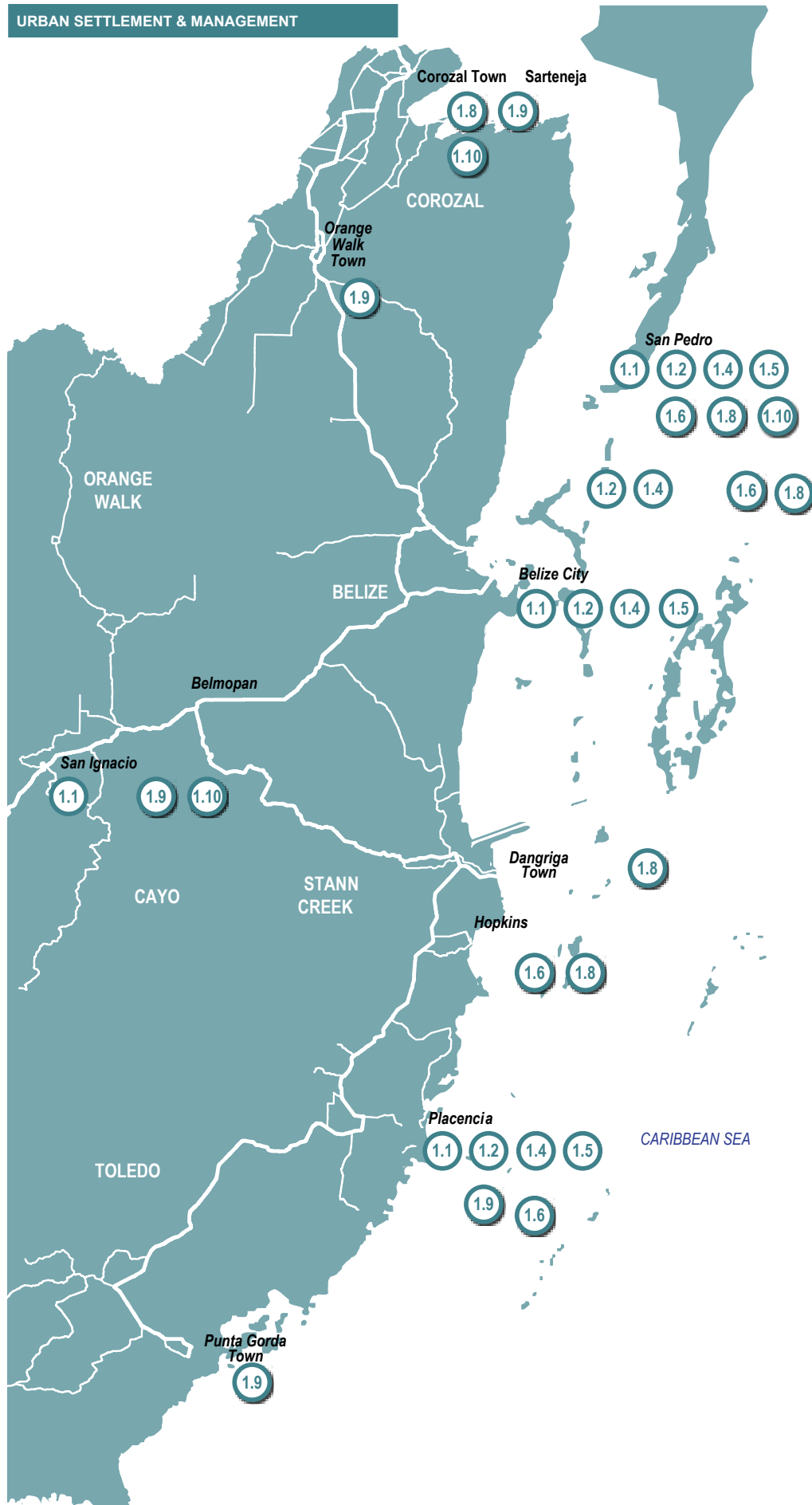
ACTION PLANS

ACRONYMS

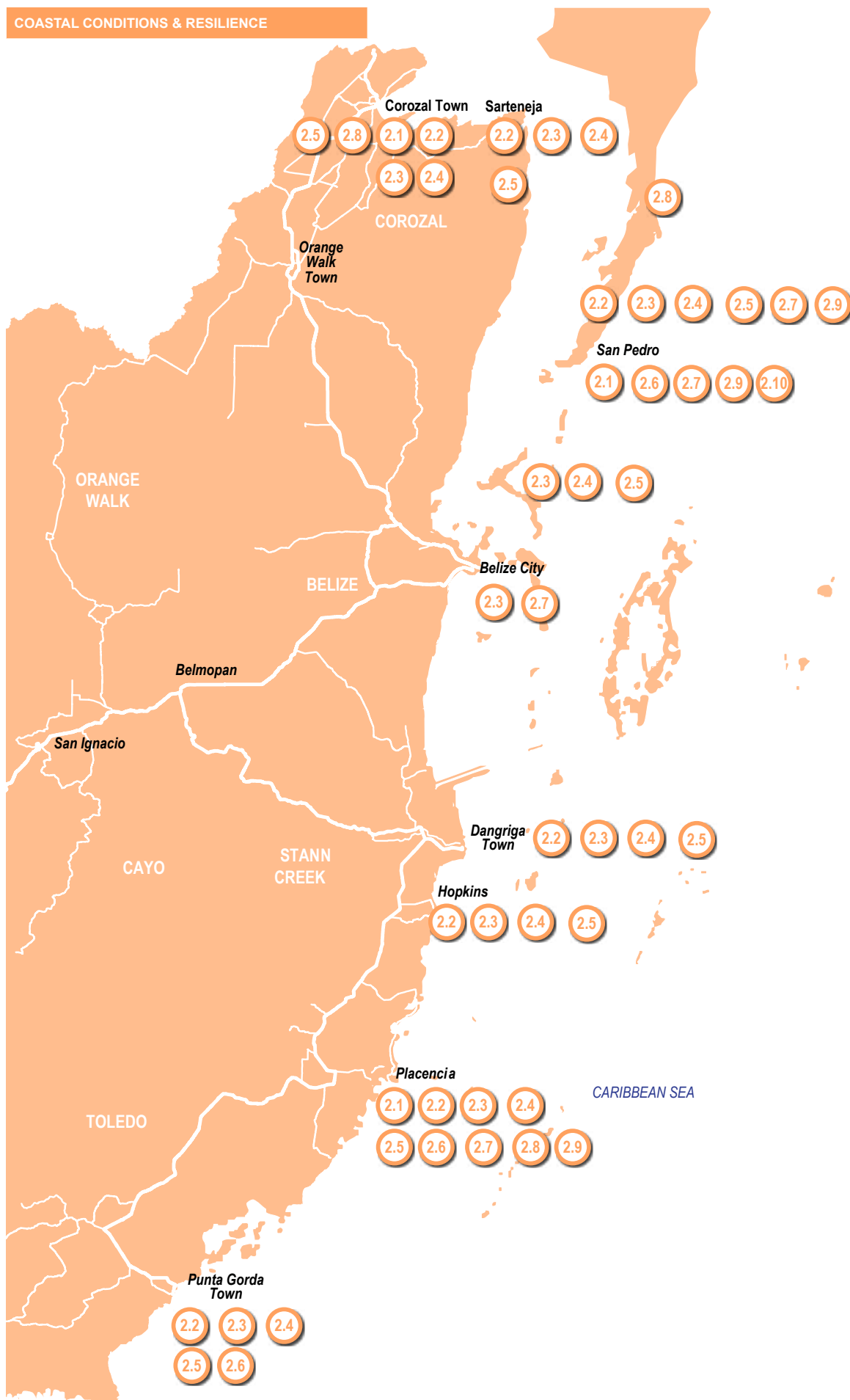
TITLE	MINISTRY	ACRONYM	SUB MINISTRIES & DEPARTMENTS	MINISTERS / CONTRACTORS
1. Attorney General's Ministry	SC, Attorney General			The Hon. Magali Marin Young, SC, Attorney General
2. Ministry of Agriculture, Food Security, & Enterprise	Ministry of Agriculture, Food Security and Enterprises	MoMAFSE		The Hon. Jose Abelardo Mai, Agriculture, Food Security, & Enterprise
3. Ministry of Blue Economy & Civil Aviation	Blue Economy & Civil Aviation	MBECA		The Hon. Andre Perez, Blue Economy & Civil Aviation
		BDCA	Belize Department of Civil Aviation	Through the Aerodrome unit
4. Ministry of Education, Culture, Science, & Technology	Education, Culture, Science & Technology	MoECST		The Hon. Francis Fonseca, Education, Culture, Science & Technology
5. Ministry of Finance, Economic Development, & Investment		MFEDI		
6. Ministry of Foreign Affairs, Foreign Trade, & Immigration	Foreign Affairs and Foreign Trade	MFAFTI		
7. Ministry of Health & Wellness	Health and Wellness	MoHW	National Road Network Management, Central Infrastructure Project Execution Unit, Housing, Central Building Authority	The Hon. Michel Chebat, Health & Wellness
8. Ministry of Home Affairs & New Growth Industries	Home Affairs & New Growth Industries	MHANGI		The Hon. Kareem Musa, Home Affairs & New Growth Industries
9. Ministry of Human Development, Families, & Indigenous Peoples Affairs	Human Development, Families & Indigenous Peoples Affairs	MHDFIPA		The Hon. Dolores Balderamos-Garcia, Human Development, Families & Indigenous Peoples Affairs
10. Ministry of Infrastructure Development & Housing	Infrastructure Development & Housing	MIDH		The Hon. Julius Espat, Infrastructure Development & Housing
11. Ministry of National Defence & Border Security	National Defence & Border Security	MNDBS		The Hon. Florencio Marin Jr, National Defence & Border Security
12. Ministry of Natural Resources, Petroleum, & Mining	Natural Resources, Petroleum and Mining	MNRPM		
			Lands and Survey Department	
13. Ministry of Public Service, Constitutional and Political Reform, & Religious Affairs	Public Service, Constitutional & Political Reform	MPSCPR		The Hon. Henry Charles Usher, Public Service, Constitutional & Political Reform
14. Ministry of Public Utilities, Energy, Logistics, & E-Governance	Public Utilities, Energy, Logistics & E-Governance	MPUELE		The Hon. Rodwell Ferguson, Public Utilities & Logistics
15. Ministry of Rural Transformation, Community Development, Labour, & Local Government	Rural Transformation, Community Development, Labour & Local Government	MRTCDLLG		The Hon. Oscar Requena, Rural Transformation, Community Development, Labour & Local Government
16. Ministry of Sustainable Development, Climate Change, & Disaster Risk Management	Sustainable Development, Climate Change & Disaster Risk Management	MSDCCDRM		The Hon. Orlando Habet, Sustainable Development, Climate Change & Disaster Risk Management
17. Ministry of Tourism & Diaspora Relations	Tourism & Diaspora Relations	MTDR		The Hon. Anthony Mahler, Tourism & Diaspora Relations
18. Ministry of Youth, Sports, & Transport	Transport, Youth and Sports	MTYS		
19. Sports & E-Governance				The Hon. Kevin-Bernard, Sports & E-Governance
20. National Institute of Culture and History		NICH		
21. Belize Water Services		BWS		
22. Protected Areas Conservation Trust	PACT		https://www.pactbelize.org/	
23. World Wildlife Fund	WWF			
24. Belize Marine Conservation & Climate Adaptation Project 2015-2020	MCCAP			
25. Statistical Institute of Belize	SIB			
26. ACES Wildlife Rescue				Chris Summers
27. Belize Audubon Society				Dominique Lizama
28. Belize Marine Fund				Angeline Valentine
29. Belize Tourism Board				Abil Castaneda
30. Blue Ventures				Jen Chapman, Josh Borland
31. Bonefish Trust				Addiel Perez
32. Caye Caulker Strong				Allie Ifiel
33. Crocodile Research Coalition				Marisa Tellez, Dassia Regalado, Jane Champion

34. Belize Fisheries Department	https://fisheries.go.bz/opportunities/			Vivian Belisle-Ramnarace
35. Forest Department. Landscape Restoration Desk				Minerva Gonzalez, Victoria Cawich
36. Fragments of Hope				Lisa Carne
37. Friends of Swallow Caye				Marcial Alamina III
38. Galen University				Sherry Gibbs
39. Sittee River				David Hilmy KEEP
40. Bohn MarAlliance				Jamal Andrewin
41. Ministry of Blue Economy and Civil Aviation				Emilie Gomez, Shantel Espadas, Jané Salazar McLoughlin
42. Naia Resort and Residences				Stewart Krohn
43. National Climate Change Offic				Kamil Salazar
44. Sarteneja Alliance for Conservation and Development				Joel Verde, Leomir Santoya, Honorio Santos, Abisai Verde
45. Southern Environmental Association				Rina Miss
46. The Nature Conservancy				Roberto Pott
47. Three Lagoons Sustainability Project				Edgar Deleon, Flor Deleon
48. Turneffe Atoll Trust				Alex Anderson
49. Turneffe Atoll Sustainability Association				Virginia Burns Perez, Eliceo Cobb
50. VEGA				Maria Vega
51. Wildlife Conservation Society				Ralna Lamb
52. Wildtracks				Diveana Samos, Zoe Walker
53. World Wildlife Fund				Nadia Bood, Juliet Neal
54. Toledo Alcaldes Association	the representative body of the Maya Peoples of Southern Belize	TAA		
55. The Maya Leaders Alliance		MLA		
56. Mesoamerican Caribbean Reef		MACR		
57. Belize Barrier Reef Reserve System (BBRRS) was inscribed as a UNESCO World Heritage Site				
58. Belize Airport Concession Company Limited		BACCL		
59. Marine Reserves National Protected Areas System				
60. Belize Port Authority		BPA	https://portauthority.bz/	
61. TIDE	BTIA Dangriga			
62. Yaxche Conservation Trust	SEA			
63. Copal Tree Lodge	Placencia Village Council			
64. Spice Farm	Independence Village Council			
65. Sarstoon Temash Institute	Stann Creek TG Association			
66. Harvest Caye	Hopkins Village Council			
67. Monkey River TG Association	Dangriga Town Council			
68. Toledo TG Association	Stann Creek ITVET			
69. PG Town Council				
70. Bacalar Chico National Park & Marine Reserve		BCNPMR		
71. Global Ocean Accounts Partnership	https://www.oceanaccounts.org/			

TIMING	RESPONSIBLE AGENCY(IES)	COST	WHO PAYS	PRIORITY
		H-M-L	G-PS-O	A-B-C
Near-Mid-Long		High-Med-Low	Gov-Priv Sector-Others	

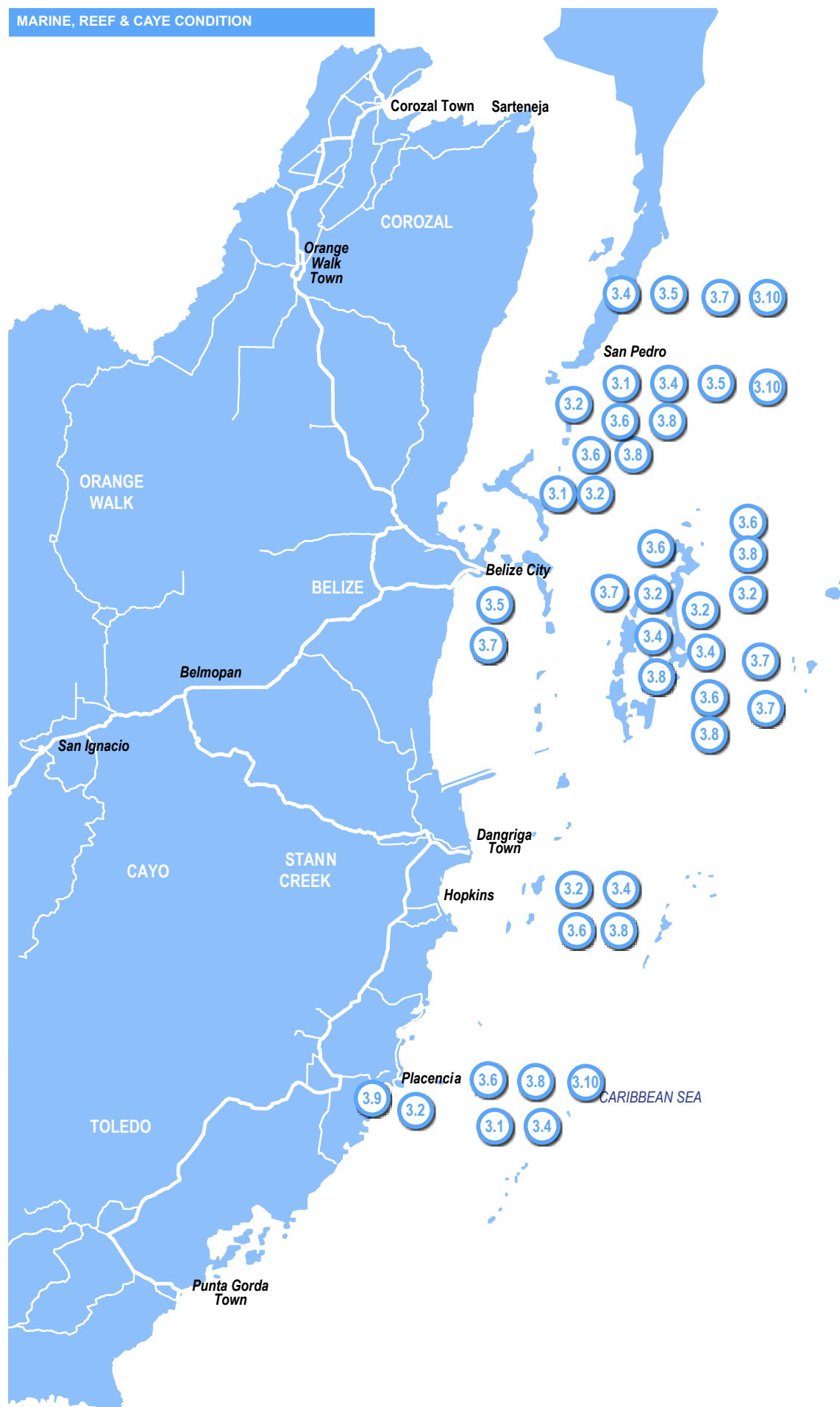


URBAN SETTLEMENT & MANAGEMENT						
ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
1.1 ACHIEVE CAREFULLY MANAGED AND SEQUENTIAL URBAN GROWTH AND/OR TOURISM DEVELOPMENT OF CITIES, TOWNS AND TOURISM CENTRES						
a. Establish plans of conservation and development for each tourism related town, village, and region that consider development, parkland, and conservation in the face of climate change. b. Plans should be amended and readopted a minimum of every 10 years. This will help to establish smart mid to long term planning and reduce short-sighted land planning decisions. c. Statutes could be prepared requiring towns or villages to prepare such plans to make them eligible for discretionary government funding. d. This planning process can also support coordination across central, regional, and local governance. e. Compliance across these governance structures with the Plans of conservation development will ensure better conservation and more managed growth.	N	MNRPM, Land and Surveys Dept.	L	G	A	San Pedro, Placencia/Independence, San Ignacio, Belize City
1.2 BETTER CONTROL NEW TOURISM DEVELOPMENT WITHIN TOWNS IN VISUALLY SENSITIVE LOCATIONS						
a. Identify environmental and visual significance through landscape significance and environmental studies. Develop special tourism zones/economic zones to be framed around those locations. b. Designate mandatory building height controls. c. Establish regulations for low-density development with the least possible site clearance to maintain the natural environmental character.	N	MIDH, Central Building Authority	L	G	A	San Pedro, Placencia, Caye Caulker, Belize City
1.3 ADDRESS TRAFFIC CONGESTION AND PEDESTRIAN COMFORT AND AMENITY IN TOURISM DESTINATIONS						
a. Develop studies to inform parking strategies controlling traffic in high tourism areas. b. Designate walking town centres, and adopt town centre principles.	N-M	MIDH, Town and Village Councils	M	G	B	Belize City, San Pedro, San Ignacio, Orange Walk, Placencia
1.4 IMPROVE RETICULATED UTILITIES, SERVICES AND INFRASTRUCTURE IN URBAN AND TOURISM GROWTH AREAS						
a. Review current feasibility studies with a long-term resilience and adaptation perspective. b. Identify locations that require further planning and prioritize risks. c. Develop a funding mechanism to ensure that development projects cover the cost of infrastructure support and maintenance over time. d. Consider local waste management strategies. e. Establish more robust environmental guidelines to inform smart development and land use changes. f. Identify critical water resource and water quality issues and ensure that regional conservation plans are developed and guide land use practices. g. Establish a quality assessment quality control approach to all new infrastructure development. h. Implement infrastructure projects with a sensitivity to conservation and equity.	N-M	BWS, MPUELE	H	G	A	San Pedro, Caye Caulker, Placencia, Belize City
1.5 ENHANCE PROVISION OF AND ACCESS TO PUBLIC SPACE, PARKLANDS AND NATURAL EXPERIENCES IN URBAN PRECINCTS						
a. Undertake a public open space audit of towns and identify government owned land to determine quality and quantity of spaces. b. Preserve remaining crown or government-owned lands in the region. c. Take steps to unlock coastal land for public access and establish these alongside public parkland as urban green networks or right-of-ways (66 foot). d. Establish compliance and enforcement around public space.	M-L	MIDH and Land and Survey Dept., MSDCCDRM	M	G	B	San Pedro, Placencia, Belize City
1.6 ENHANCE THE RESILIENCE OF ESTABLISHED URBAN SETTLEMENTS IN VULNERABLE (LOW LYING, COASTAL OR FLOODPLAIN) LOCATIONS						
a. Gather Lidar digital terrain model data, historical flood data, physical characteristics, rainfall records, flood gauge records and drainage data to inform flood hazard map b. Evaluate other hazards. c. Generate hydrologic and hydraulic modelling with probable flood flows and volumes under future climate scenarios d. Develop adaptation plans including raised roads, flood defences, zones for drainage and infrastructure investments. e. Develop policy and planning reports to support smart growth, managed retreat and adaptation. Integrate adaptation planning with emergency management and infrastructure planning.	N-M	MoMAFSE, MIDH, MNDBS, MNRPM, MSDCCDRM and NEMO	H	G	B	Belize City, San Pedro, Caye Caulker, Hopkins, Placencia and the Cayes
1.7 ENSURE THE (REAL AND PERCEIVED) SAFETY AND SECURITY OF ALL VISITORS (AT DAY AND NIGHT) IN TOURISM TOWNS IS PRIORITISED						
a. Develop comprehensive reviews of safety risks and concerns for all tourist towns. b. Establish low, medium, and high priority actions supporting improved safety. c. Develop oversight procedures and periodic reviews to ensure adherence to safety protocols. d. Establish surveillance systems across destinations and improve existing communication systems.	N-M-L	BTB, Tourism Police, Police Department	M	G-PS	A	All tourism villages
1.8 SHOWCASE DISTINCTIVE URBAN-HISTORIC-CULTURAL-NATURAL ASSETS AND EXPERIENCES IN TOURISM TOWNSHIP AREAS						
a. Map existing historic buildings. b. Register them where possible as historic. c. Develop investment and grant programs to encourage renovations and encourage future mixed-use development to jump start economic activity in urban spaces. d. Develop a government investment program to purchase historic homes for renovation and use by government agencies. e. Develop a running list of historic houses and cultural areas across Belize.	N	MIDH, Belize City House of Culture and Downtown Rejuvenation Program	L	G-PS	C	Belize City, San Pedro, Caye Caulker, Dangriga, Corozal, Hopkins
1.9 PROTECT THE IMPORTANT PERI-URBAN FRINGE FROM DEVELOPMENT ENCROACHMENT WHERE AGRICULTURAL AND/OR ENVIRONMENTAL CONDITIONS OCCUR						
a. Consider establishing growth boundaries. b. Seek out tourism opportunities at the interface between peri-urban and agriculture, such as the Maya Chocolate tours and incentive tourism operators. c. Develop controls and management oversight around agricultural growth and its conservation impacts. Work with farmers to understand their constraints and particular challenges. d. Establish education programs for developers, contractors and real estate agents on climate risks and all applicable legislation, processes, and procedures pertaining to smart land development.	N	MoMAFSE	L	G	B	Independence, Punta Gorda, Orange walk, Corozal, San Ignacio
1.10 IMPROVE THE IMAGE, PRESENTATION AND FUNCTIONAL ATTRIBUTES (IE. PUBLIC REALM QUALITY, DEVELOPMENT STANDARDS, PUBLIC TRANSIT) OF URBAN AREAS						
a. Build on the beautification initiative started in Belize City. b. Develop urban greening and public realm enhancement master plans that include near mid- and long-term projects. c. Establish and reinforce blight removal projects and historic renovation grants. d. Ensure the standards and engineering approval process established by the Central Building Authority for building construction are adhered to. e. Link the plans to climate resilience and adaptation planning. Include an establishment period and maintenance and irrigation planning. f. Establish similar programs in each tourism town.	M	BTB, City Council	M	All	C	Belize City, San Ignacio, Corozal, San Pedro



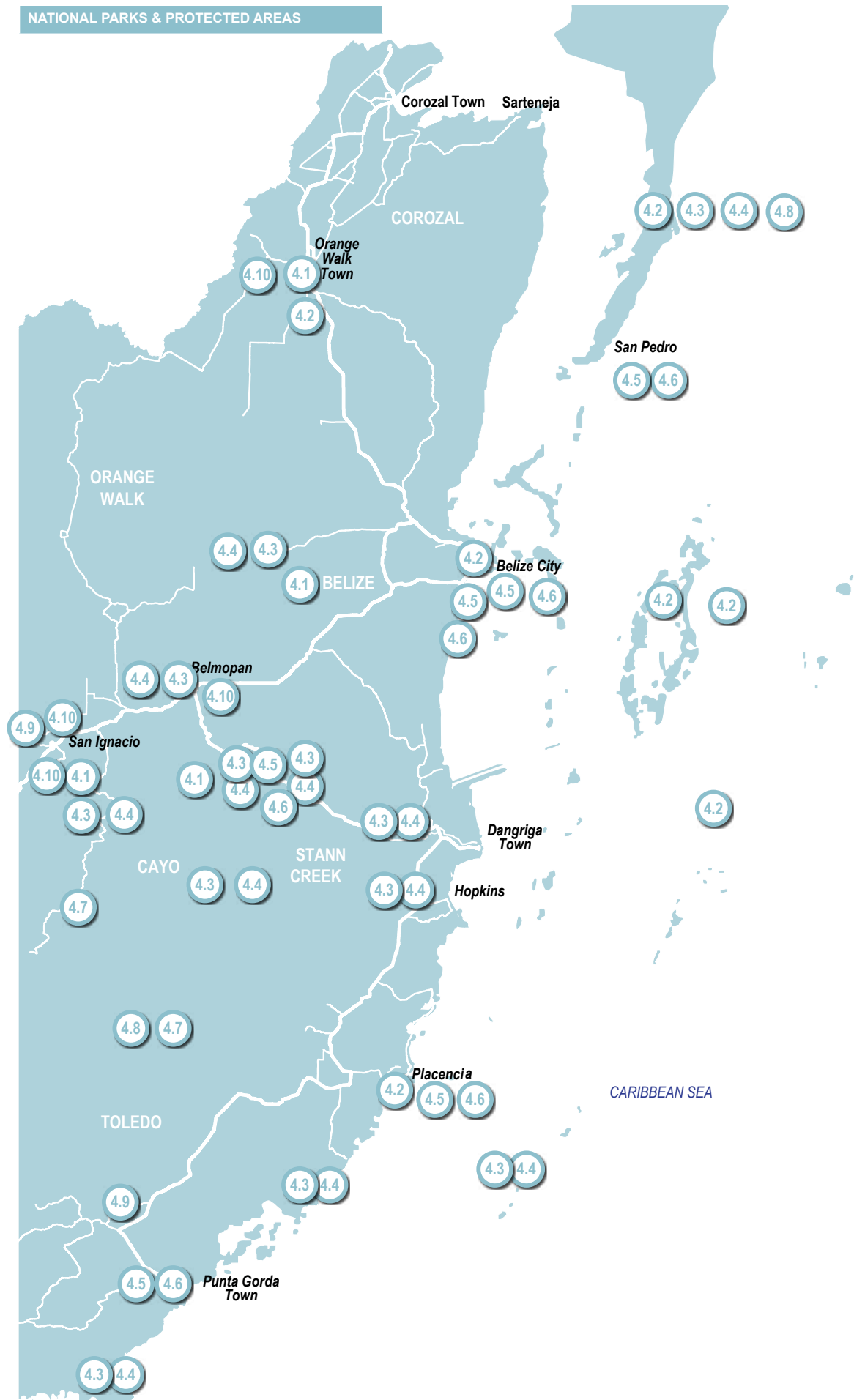
COASTAL CONDITIONS & RESILIENCE

ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
2.1 DESIGNATE, PROTECT AND STRENGTHEN EXISTING COASTAL/LAGOON MANGROVE FORESTS (AND REHABILITATE WHERE REQUIRED)						
a. Build on work by the Global Mangrove Alliance and Belize Mangrove Alliance Action Plan 2022-2027 with local NGOs and government agencies to strengthen legislative and policy framework for mangrove protection and reduce illegal mangrove clearance. b. Enhance education programs around mangrove conservation and its value for ecology and climate resilience, and engage and inform the general public. c. Implement successful mangrove restoration and integration into tourism amenities. d. Develop oversight for protection and monitoring to ensure compliance with new land development around mangrove conservation. e. Develop requirements for developers who have removed habitats in excess of what is permitted to finance mangrove restoration or conservation. Make this retroactive. f. Work at a watershed scale to reduce contamination feeding into mangroves. g. Discourage heavy and unregulated use of herbicides, pesticides, and fertilizers.	N	MBECA and Forestry Department, CZMAI	L	G	A	San Pedro, Corozal, Placencia
2.2 IDENTIFY AND SHOWCASE LOCATIONS FOR MANGROVE FOREST RESTORATION FOR ECOLOGICAL AND COASTAL FRINGE RESILIENCE						
a. Develop mapping to identify highly degraded locations as a focus for restorative work. b. Consider high profile urban locations to ensure exposure. c. Monitor and publicize progressive rehabilitation and merits.	N	MBECA and Forestry Department, CZMAI	L	G	B	Corozal, Sarteneja, Ambergris Caye, Hopkins, Dangriga, Placencia, Punta Gorda, various cayes
2.3 BETTER UNDERSTAND THE INFLUENCE OF CLIMATE CHANGE AND SEA LEVEL VARIATION IN COASTAL AND LAGOON SETTINGS (FORECAST MAPPING)						
a. Support CZMAI and other agencies involved in mapping current and future flood risks. b. Gather Lidar digital terrain model data, historical flood data, physical characteristics, rainfall records, flood gauge records and drainage data to inform flood hazard map c. Evaluate other hazards. d. Generate hydrologic and hydraulic modelling with probable flood flows and volumes under future climate scenarios e. Develop adaptation plans including raised roads, flood defences, zones for drainag , and infrastructure investments. f. Develop policy and planning reports to support smart growth, managed retreat and adaptation. Integrate adaptation planning with emergency management and infrastructure planning.	M	CZMAI, DOE, MBECA, MNRPM, Land and Surveys Dept.	L	G	A	Corozal, Sarteneja, Ambergris Caye, Caye Caulker, Belize City, Hopkins, Dangriga, Placencia, Punta Gorda, various cayes
2.4 SUPPORT REVEGETATION AND ENHANCEMENT OF THE COASTAL AND LAGOON EDGES THROUGH CONTIGUOUS LINEAR LAND PLANNING						
a. Build on the Integrated Coastal Zone Management plan. b. Consider national jurisdiction and control. Build on the State of the Belize Coastal Zone Report 2014-2018 Final report. National Control and Management (outside urban settlement locations). c. Seek International funding support for Strategic and Local research - Green Climate Fund/ World Bank. d. Encourage green-gray and "soft" and permeable coastal defence structures (e.g. mangrove planting to avoid related erosion, the acceleration of offshore currents, and wildlife obstructions. e. Hard coastal defences should not be the default. f. Instead, "hard" coastal defence structures should follow due process by the relevant permitting agency.	L	PACT, CZMAI	M	G-PS	C	Corozal, Sarteneja, Ambergris Caye, Caye Caulker, Hopkins, Dangriga, Placencia, Punta Gorda, various cayes
2.5 ENSURE DEVELOPMENT IS WELL SETBACK FROM THE COASTLINE/LAGOON EDGE TO AVOID VISUAL INTRUSION AND POTENTIAL HARM FROM ENCROACHMENT						
a. Apply clear Building Form regulations (66ft setback reserve from high tide and heights as designated or require Visual Impacts Assessments (VIA) for any coastal edge development seeking to exceed height parameters defined in local codes and minimum distances between buildings. b. Mandatory Maximum development heights of 5 storeys (15m). c. Implement landscape design awareness and facilitate preservation of mangroves for shoreline protection through design. d. All development proposals near lagoons or wetlands areas should be required to undertake a full-scale Environmental (EIA) and including shoals with no emergent land.	M-L	CZMAI, DOE, MBECA, MNRPM, Land and Surveys Dept.	L	G	C	Corozal, Sarteneja, Ambergris Caye, Caye Caulker, Hopkins, Dangriga, Placencia, Punta Gorda, various cayes
2.6 ENCOURAGE UNINTERRUPTED PUBLIC ACCESSIBILITY TO BEACHFRONTS AND THE COASTAL/LAGOON FRINGE FOR IMPROVED TOURISM AMENITY AND ACTIVATION						
a. Identify priority locations in key settlements for public access to the coastline and waterfront. b. Focus on 'missing links' where existing coastal access is attained and consider opportunities for public land acquisition to achieve such. c. Establish a National Fund (via development contribution/land tax) for necessary public land acquisition.	M-L	MIDH, MTRD, MNRPM	M	G	C	Placencia, San Pedro, Punta Gorda
2.7 MINIMIZE THE INTERVENTION OF STRUCTURES (JETTIES, GROINS AND OTHER PROJECTIONS) INTO COASTAL OR LAGOON FLATS						
a. Avoid or minimize new structures/construction into coastal or lagoon realm (unless for coastal rehabilitation works), and encourage shared resources. b. Any required infrastructure to be subject of EES process and assessment. National standards to be defined for minimum separation. c. Develop and adopt standards and guidelines for the construction, placement and operation of docks and structures incorporated into their design and construction such as dive shops, tour guiding kiosks and other over-water facilities as per the advice of the Department of Environment (DOE). d. This should include the issue of 'pier density' or the number of piers over a unit length of shoreline such as a mile or kilometre, as well as the length and environment-related issues such as beach erosion and placement relative to coral reef and seagrass beds.	M	MIDH, MNRPM	L	G	B	San Pedro, Caye Caulker, Placencia, Belize City
2.8 MANAGE AND MONITOR WATER QUALITY (AND WASTE MANAGEMENT) IN THE COASTAL THRESHOLD AND ASSOCIATED LAGOONS						
a. Establish monitoring initiatives that are funded to last a minimum of 5-10 years with renewal options for sensitive areas across Belize. b. Review the current monitoring programs in sensitive lagoon ecosystems, including Corozal Bay and Placencia lagoon to ensure robust long term monitoring. c. Set up monitoring around all tourism destinations with robust monitoring. d. Establish quality control mechanisms with outside parties to ensure compliance. e. Build strategic partnerships with universities building on current examples, such as the Microsoft initiative, to ensure quality monitoring and management of the data. f. Work with academic partners, including the University of Belize, to maintain data. g. Focus on marine protected areas, as well as land prioritized for fishing, coastal development, marine tourism, transportatio , and other human uses.	N	MNRPM, DOE, MBECA, Department of Fisheries	L	G-O	B	Placencia Lagoon, Bacalar Chico Reserve and Corozal Bay
2.9 IMPROVE THE CONTROL AND REGULATION OF NAUTICAL RECREATION IN THE COASTAL AND LAGOON AREAS						
a. Establish clear management protocols and well-publicized regulations regarding nautical activities (proximate to land and in outlying reef and deep sea areas). b. Confirm international best practice standards regarding pollution (noise, spills etc.), risk mitigation and contemplate locationally specific boating quotas (e.g. Blue Hole) - and carrying capacity management overseas as a national/customized approach.	N	CCZMAI	L	G	B	off shore cayes, San Pedro, Caye Caulker, Placencia
2.10 ESTABLISH A COORDINATED NATIONAL RESPONSE TO SARGASSUM INFESTATION ON COAST AND CAYES WITH PUBLIC AND PRIVATE INPUT						
a. More carefully monitor the seasonal onset of Sargassum infestation. Consider a National Task force or other body to address a suite of related Coastal/Marine Health matters (i.e. Sargassum, Lion Fish/ Reef Restoration). b. Support investment in Sargassum as biofuel and/or other uses. Recognise the value of local labour force to assist in Sargassum management and upskill to advance ecological management.	N-M	CZMAI, MBECA, DOE	M	G PS O	B	cayes, San Pedro



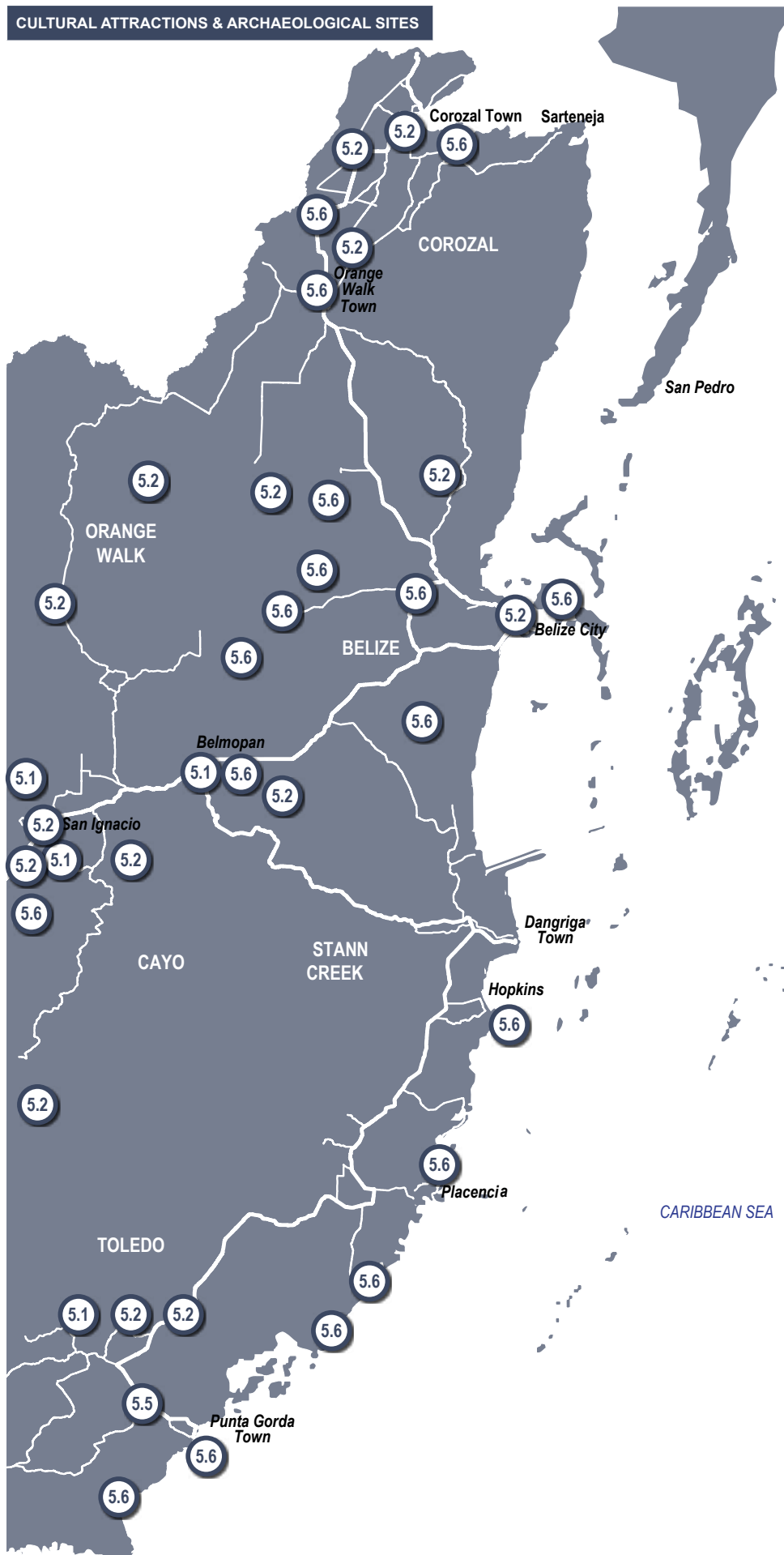
MARINE, REEF & CAYE CONDITION						
ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
3.1 DESIGNATE, PROTECT AND STRENGTHEN THE UNESCO REEF SYSTEM AND EMPLOY PRACTICES THAT MINIMIZE HARM OF TOURISM INTERVENTION/CONTACT						
a. Support the inter-agency collaboration involved in caring for the reef system. b. Expand work with the Meso-American Caribbean Reef and other programs. c. Utilize momentum from the recent Blue Bond Agreement to ensure robust and coordinated approaches connecting infrastructure development and investment with reef conservation. d. Support programs working on coral reef conservation locally.	M	CZMAI, Belize Barrier Reef Reserve System, MBECA, Mesoamerican Caribbean Reef, WWF, Belize Audubon Society	M	G	C	Cayes along the reef such as Silkwater Caye, San Pedro, Caye Caulker
3.2 UNDERTAKE RESEARCH AND MONITORING TO BETTER MEASURE THE IMPACT OF CLIMATE AND WATER TEMPERATURE CHANGE OF REEF SYSTEMS						
a. Build on the Belize Blue Economy Development Policy and Strategy (2022 – 2027). b. Support meetings, invest in recommended monitoring and academic collaboration, and look for ways of fostering broad community collaboration around reef support. c. Expand relations with Florida universities around coral reef management and with Australia.	N	CZMAI, Belize Barrier Reef Reserve System, MBECA, Mesoamerican Caribbean Reef, WWF, Belize Audubon Society	L	G	A	Blue Hole, Turneffe Islands, Glovers Reef, Lighthouse Reef, along the reef near San Pedro, Caye Caulker and Placencia
3.3 POLICING OF ILLEGAL FISHING AND RELATED BEHAVIOURS THAT COMPROMISE REEF & BIOSPHERE CONDITIONS						
a. Consolidate, invest in and fund (via increased Marine Recreation Visitor Tax/Levy) a nationally-recognised Marine Ranger force (i.e. in collaboration with NGOs) to better monitor recreational marine activities. b. Allied research and monitoring as party of Marine Spatial Planning Process (2022).	N	Enforcement Team under Belize Fisheries Department, Conservation Compliance Unit	M	G	B	Marine Reserves (current and potential future sites). High value nesting areas for turtles.
3.4 ACKNOWLEDGE THE CRITICAL ROLE OF CAYE AND REEF MANAGEMENT BY NGO AND SEEK A COORDINATED APPROACH TO TOURISM PRACTICES						
a. Work collectively with Central Government and active NGOs on a collaborative model/open platform to share resources and funding allocation and ongoing dialogue/exchange. b. Identify gaps in NGO support and seek international donor or emerging NGO interest to increase national coverage/support.	M	CZMAI, MBECA, DOE	M	G-O	B	San Pedro, Caye Caulker, Turneffe Islands, Glovers Reef, Lighthouse Reef, and Silk Caye.
3.5 CONTROL AND MONITOR MAJOR BOATING (CRUISE AND OTHER PRIVATE CRAFT) ROUTES TO AVOID HARM TO THE REEF NETWORK						
a. Identify port designations that will impact routes and damage reef networks and review their function. b. Technology advances should provide opportunities (drones, satellite data) to further regulate and control boating to reduce reef harm. c. Define seasonal quotas for major cruise ship arrivals and better monitoring of congestion. d. Formally declare the Meso-American reef region a PSSA (Particularly Sensitive Sea Area) for shipping.	M	Enforcement Team under Belize Fisheries Department, Conservation Compliance Unit	L	G	C	Belize City, San Pedro, Caye Caulker
3.6 BETTER MANAGEMENT OF RECREATION AIR & BOAT TRAFFIC IN AND AROUND THE REEF AND CAYES						
a. Develop planned routes and areas to avoid or reduce impacts, working with tour operators and conservation managers. b. Designate zones for boat traffic around reefs and cayes. c. Establish and expand conservation areas to ensure broad management.	N	Enforcement Team under Belize Fisheries Department, Conservation Compliance Unit	M	G-O	C	Blue Hole, Turneffe Islands, Glovers Reef, Lighthouse Reef, along the reef near San Pedro, Caye Caulker, and Placencia
3.7 APPLY CARRYING CAPACITY MEASURES TO PUBLIC CAYES WITH THE PROSPECT OF VISITOR QUOTAS AND SEASONAL LIMITS						
a. Initiate a National Forum comprising Government and NGO Caye Managers to discuss carrying capacity matters in the context of tourism viability. b. Seek to identify priority locations for next stage quotas subject to seasonal demand. c. Work with NGOs and the Fisheries Department on action plans.	N-M	MBECA, Fisheries Department, MRTCDLLG, CZMAI	L	G	B	Sergeant's Caye, Silkwater Caye, Caye Caulker, Half Moon, Lighthouse, etc.
3.8 RECOGNISE THE DELICATE ENVIRONMENTAL CONDITION OF CAYES AND ESTABLISH COMMON DEVELOPMENT REGULATIONS						
a. Building on the existing marine and conservation programs in place, establish strategic expansion plans and new conservation zones to ensure long-term viability of habitats across the cayes. b. Regulate all new construction to avoid over building.	M	MBECA, Fisheries Department, MRTCDLLG, CZMAI	M	G	B	Blue Hole, Turneffe Islands, Glovers Reef, Lighthouse Reef, along the reef near San Pedro, Caye Caulker, Placencia
3.9 REVIEW FARMING, AQUACULTURE AND OTHER LAND USE IMPACTS AND EXPLORE SUSTAINABLE AQUACULTURE						
a. Review the impact of past aquaculture and farming on adjacent ecosystems. b. Pursue compensation from polluters to cover the cost of lagoon and mangrove regeneration. c. Establish a robust monitoring program working with the University of Belize and other institutions. d. Consider opportunities for growth in sustainable small-scaled aquacultural production and connect with Tourism offer (i.e. oyster farming).	L	MoMAFSE	M	G-PS-O	C	Independence
3.10 PROMOTE AND EDUCATE TOURISM INDUSTRY (AND VISITORS) ON SENSITIVITY OF REEF AND BIOSPHERE CONDITIONS						
a. Advance other MSP approaches currently used in Belize, such as Marine Protected Areas, Managed Access, and the Integrated Coastal Zone Management Plan. This will complement the Belize Blue Economy Development Policy and Strategy (2022 – 2027) and Maritime Economy Plan. b. Adopt a National Marketing Campaign 'on Arrival' at International Air/Sea Ports highlighting importance and sensitivity of the Reef environment. c. Promote the tourism industry widely through various marketing media.	N-M	CZMAI, MBECA, Fisheries Department	L	G-O	B	San Pedro, Caye Caulker, Placencia

NATIONAL PARKS & PROTECTED AREAS

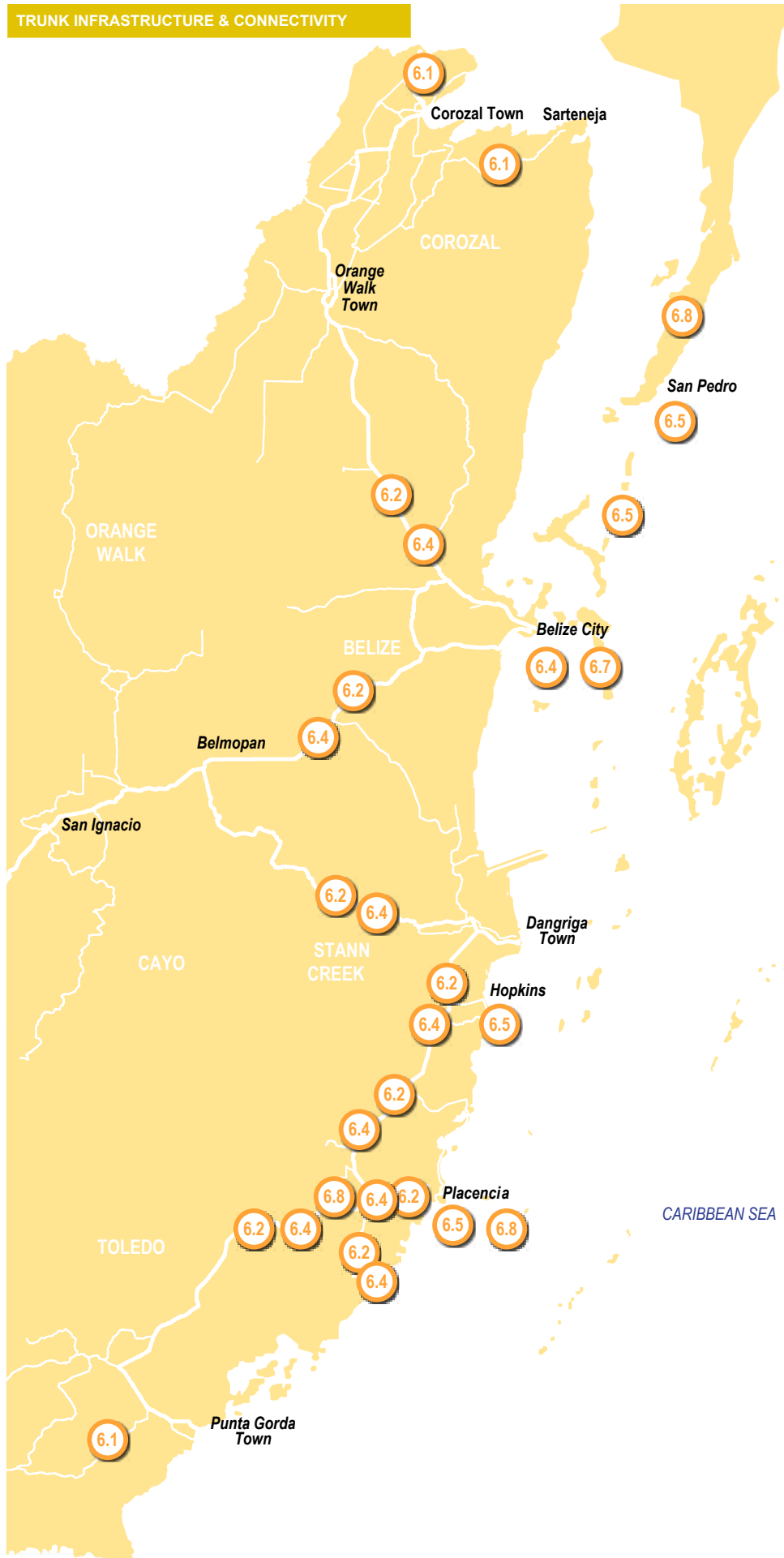


NATIONAL PARKS & PROTECTED AREAS						
ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
4.1 ENHANCE THE PROFILE AND AWARENESS OF NATIONAL PARKS AND PROTECTED AREAS AND ENVIRONMENTAL OR ECOLOGICAL VALUES						
a. Continue to support and enhance ongoing marketing campaigns from PACT and other organisations around National Parks and conservation, including cultural and environmental areas. b. Develop international marketing linking Conservation areas to tourism. c. Develop a national signage program marking out different ecosystem areas across Belize.	L	MRTCDLLG, MSDCCDRM, MNRPM, PACT	L	G-O	C	San Ignacio, Mountain Pine Ridge, Belize River Area, Orange Walk area
4.2 IMPROVE VISITOR ACCESS (ROADS OR ALTERNATIVE RIVER, LAGOON OR SEA CRAFT) TO NATIONAL PARKS AND PROTECTED AREAS FOR GREATER CONVENIENCE						
a. Focus investment on road maintenance and enhancement on Primary Road Corridors (and Scenic Routes) - refer to the National Framework and diversify options for alternative visitor access (via boat or other modes) to nearby destinations to reduce congestion. b. Strengthen extent and competency of public transport (bus) network from Air and Sea Ports to Primary and Secondary Nodes. c. Increase profile of Public Transport connections to destinations (micro-transport and other vehicles) through undertaking service characteristics, current travel behaviour and mode choice, land use and accessibility, and employing a scenario-based approach to route planning.	N-M	MTDR, MNRPM, DOE	M	G-O	B	Lamanai, Belize River, Burdon Canal, Placencia Lagoon, Turneffe Islands, Glovers Reef, Lighthouse Reef, Bacalar Chico National Park & Marine Reserve
4.3 STRENGTHEN AND UNIFY NATIONAL PARK AND PROTECTED AREA MANAGEMENT AND TOURISM SERVICES (I.E. VIS/BRANDING)						
a. Advance programme for new or upgraded Visitor Information Centres at key destinations with unified 'National' branding and Sales/Services facilities. b. Use Marketing and Central BTB office as hubs for coordinating messaging around the values for tourism of national parks and protected areas around land management. c. Work with BTB and local tourism operators to ensure high-quality training standards to ensure high quality tourism services.	N-M	MRTCDLLG, MSDCCDRM, MNRPM, PACT	M	G-O	B	Bacalar Chico National Park and Marine Reserve, Billy Barquedier National Park, Chiquibul National Park, Community Baboon Sanctuary, Elijio Panti National Park, Five Blues Lake National Park, Guanacaste National Park (Belize), Laughing Bird Caye, Mayflower Bocawina National Park, Payne's Creek National Park, Sarstoon-Temash National Park, St. Herman's Blue Hole National Park
4.4 DEVELOP HIERARCHY OF NATIONAL PARK AND PROTECTED AREA STATUS – AS PROTECTED/PASSIVE/ACTIVE ETC						
a. Undertake studies of attributes of all NP/PA with a view to classifications for tourism opportunity. b. Work with Park managers to develop thematic 'differentiation' enabling improved visitor experience and site management.	N	MRTCDLLG, MSDCCDRM, MNRPM, PACT	L	G	C	See above
4.5 HIGHLIGHT OPPORTUNITIES FOR ADVENTURE TOURISM (FOR MULTIPLE DAY GUIDED VISITS TO MOUNTAIN PEAKS, RIDGES AND PASSES)						
a. Work with local tourism operators and stakeholders (guides) to identify routes for overland trekking. b. Undertake minor works (mapping, signage, pathway designation, respite locations). c. Provide support (financial, marketing, promotion, linked products) to advance routes.	N	MTDR, MTYS, MoHW	L	G-PS	B	Caves Branch, Areas to the west of Punta Gorda, boardwalk design strategies through mangroves (Belize City, San Pedro, Placencia lagoon) Burdon Canal Wildlife Sanctuary
4.6 AVOID EROSION OF NATIONAL PARK AND PROTECTED AREAS ENVIRONMENTAL OR ECOLOGICAL VALUES THROUGH INCURSION BY DEVELOPMENT						
a. Possibly to recommend that PAs establish Visitor Management Plans (inclusive of Carrying Capacities, Tourism Asset Development Plans, etc.).	N	MRTCDLLG, MSDCCDRM, MNRPM, PACT	L	G	B	See above, all national parks and wildlife sanctuaries
4.7 CAREFULLY MONITOR AND MANAGE WEED SPECIES AND OTHER INFESTATIONS IN TERRESTRIAL FORESTS AND RESERVES TO PROTECT INTEGRITY AND DIVERSITY - FOR AN IMPROVED VISITOR INTEGRITY						
a. Work with Park Rangers and International Donors (WWF) to identify potential risks and threats to Forest integrity, in support of improved visitor experience. b. Establish maintenance and management regime for habitat enhancement and pest removal, and implement progressively whilst maintaining visitor accessibility and visitation. c. Develop short to medium term feasibility to determine revenue streams, including visitor levies, and/or entry fees to enable improved protected area integrity.	N	MNRPM and DOE, Forestry Department	M	G-O	A	Mountain Pine Ridge and Maya Mountains, around agriculture and forest mangrove areas, and around archaeological sites
4.8 EXPLORE POTENTIAL FOR A 'SYSTEMS APPROACH' TO NATIONAL PARKS AND PROTECTED AREAS ORIENTED AROUND DRAINAGE CATCHMENTS						
a. Develop drainage and hydrological mapping to determine natural catchments and flows and the nexus with public land. b. Devise NP strategy to grow extent of NP to better control visitor flows, development, and water quality management. c. Contemplate further NP designation in terrestrial zones embracing sensitive catchment settings and links to Lagoons/Coast, enabling a broadening of land based tourism expansion programs. d. Develop a NP 'ecosystem model' as a basis for strategic designation of visitation sites and natural tourism expansion programs.	N	MRTCDLLG, MSDCCDRM, MNRPM, PACT, BWS	L	G	B	Maya Mountain ranges and associated tourism opportunities, Bacalar Chico National Park & Marine Reserve
4.9 DEVELOP TOURISM PRODUCTS ORIENTED SPECIFICALLY AROUND CONNECTED NATIONAL PARKS AND PROTECTED AREA SYSTEMS (TREKKING, CYCLING, KAYAKING)						
a. Work with (national, regional and international) tourism investors and service providers to table concepts for products specifically oriented around Natural Adventure markets. b. Work with BTB and allied regional agencies to develop a strategy for thematic product development in key locations within and around NP - embracing natural transects: mountain-forest-river-plain-lagoon-coast.	N	MRTCDLLG, MSDCCDRM, MNRPM, PACT, MDITT, BTB	L	PS	B	Southern mountains near Punta Gorda, Maya Mountains near San Ignacio
4.10 EVALUATE POTENTIAL FOR LOW PROFILE ACCOMMODATION AND LIKE COMMERCIAL CONCESSION BASED FACILITIES IN SELECTED LOCATIONS						
a. Undertake feasibility studies and site planning design concepts in non-sensitive locations for bespoke accommodation services in NP to be evaluated for viability. b. Identify opportunities for local stakeholders to be trained in development and related tourism services to ensure host community benefits. c. Develop models that can start small and be carefully 'scaled up' subject to demand/viability.	M	MIDH, NICH, BTB	L	G-PS	B	Orange Walk, San Ignacio, Belmopan

CULTURAL ATTRACTIONS & ARCHAEOLOGICAL SITES



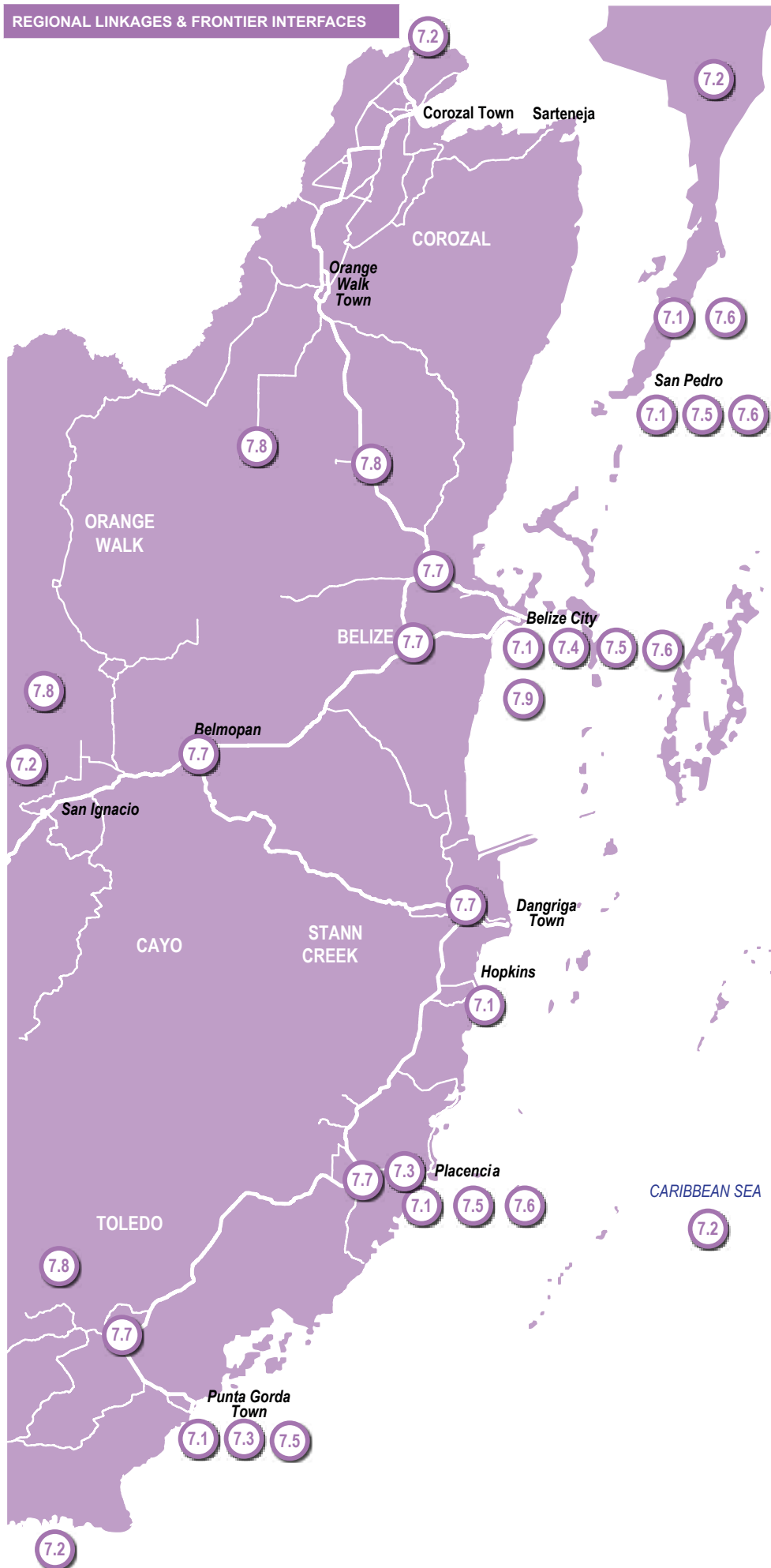
CULTURAL ATTRACTIONS & ARCHAEOLOGICAL SITES							
ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION	
5.1 ADVANCE A NATIONAL STRATEGY FOR A UNIFIED/COORDINATED APPROACH TO THE TOURISM MANAGEMENT OF MAYA ARCHAEOLOGICAL SITES							
a. Work with Indigenous representatives and the Archaeological Department to complete a fulsome picture of sites of importance. b. Develop a 'Cultural Heritage Management' approach that triggers a preliminary desktop assessment for a site within a defined threshold of coastline, river , and other landscape features. c. Together with stakeholders, work on a national approach to site identification, promotion, carrying capacity consideration , and management.	N	MIDH, NICH, BTB, MLA, TLA	M	G	A	Belmopan, San Ignacio and Maya Sites	
5.2 DEVELOP A 'SYSTEMS' APPROACH WITH DESIGNATED REGIONAL TOURISM LINKAGES BETWEEN A HIERARCHY OF MAYA (HISTORIC AND LIVING CULTURAL) SITES							
a. Work with Maya leaders, and local communities to foster connections between Maya sites and the surrounding community of artisans. b. Invest in artisans within the local communities through the Maya sites to build up tourism value (e.g. around handicrafts, language, food, and culture.)	N	BTB, NICH	M	G	B	Actun Tunichil Muknal, Altun Ha, Baking Pot, Barton Creek Cave, Cahal Pech, Caracol, Cerros, Chaa Creek, Colha, Cuello, El Pilar, Ka'Kabish, K'axob, La Milpa, Lamanai, Louisville, Lubaantun, Marco Gonzalez, Minanha, Nim Li Punit, Nohmul, Nohoch Che'en, Pacbitun, Pusilha, San Estevan, Santa Rita, Corozal, Tipu, Uxbenka, Xnaheb, Xunantunich	
5.3 STRENGTHEN 'NATIONAL' STANDARDS FOR ARCHAEOLOGICAL REHABILITATION/RESTORATION AND ASSOCIATED TOURISM INTERPRETATION/INFORMATION							
a. Develop a template for further archaeological investment and support to document, excavate, upkeep, improve access, and develop interpretation and signage for Maya sites. b. Develop a priority list of actions. Use the investment in upgrades as a training opportunity for Maya community members particularly around language, as well as stone masonry, and the arts.	N-M	NICH, MLA, TLA	M	G-O	B	See above	
5.4 IMPROVE THE VISITOR EXPERIENCE AT ARCHAEOLOGICAL SITES WITH RESPECTFUL AND EQUITABLE CONTROLLED ACCESS, IMPROVED SAFETY AND CONVENIENCES FOR ALL VISITORS							
a. Prior to completion of these important safety measures, the current sites should work with a landscape architect to develop primary zones for tourists with areas off limits identified. b. Develop simple universal details for safety zones and install them throughout the sites to increase safety and encourage better ways to keep track of visitor numbers and work the local community and management to identify carrying capacities.	N-M	BTB, Tourism police, NICH	M	G-O	A	See above	
5.5 DEVELOP TOURISM PROGRAMME OF 'CONNECTED LIVING CULTURES' VIA NETWORKS OF INDIGENOUS VILLAGES SHOWCASING LOCAL CUSTOMS AND PRACTICES							
a. Engage with Indigenous leaders and representatives on a holistic approach to showcasing the diverse living cultures for tourism - with a focus on handicrafts, food, music-dance, and traditional production. b. Identify opportunities in tourism nodes to display, promote, and connect with service providers.	N-M	BTB, NICH, MLA, TLA and local Village Councils and Communities	M	G-PS	B	Southern Belize (near Punta Gorda)	
5.6 GROW VISITOR AWARENESS/EDUCATION OF OTHER LIVING CULTURES ACROSS REGIONS WITH OPPORTUNITIES TO SHARE TRADITIONAL PRACTICES							
a. Work with National and International Educators (primary, secondary and tertiary levels) on Regional (cross National frontier) approach to the protection and promotion of living cultures (i.e. Garifuna/Kriol food, music, and dance). b. Ensure tourism information (on port arrival and online) highlights the breadth and distinctiveness of practices. Promote immersive traditional practice tourism experiences as products.	N-M	BTB, Cultural Heritage Groups	L	G PS O	B	Hopkins, Punta Gorda, Barranco, Livingston, Monkey River, Seine Bight, and Punta Negra, Yucatec, Mopan, and Q'eqchi' Maya residing in the Corozal, Orange Walk, and Cayo District. Belize City, Burrell Boom, Bermudian Landing, Crooked Tree, Gracie Rock, Rancho Dolores, Flowers Bank, and Belmopan	
5.7 CAREFULLY PLAN PATHWAYS TO (AND BETWEEN) ARCHAEOLOGICAL ASSETS AND SITE PARKING AND INFRASTRUCTURES JUDICIOUSLY							
a. Work with land managers and local stakeholders to prepare site plans for key Archaeological sites. b. Clearly identify locations for bus/coach parking, introduction of asset buffers, and pedestrian footbridges (where River or Lagoon Crossings occur). c. Develop a funding programme for priority works. d. Advance trekking, trail or connected journeys between sites.	M	MIDH, NICH, local village and town council	M	G	A	See Maya sites above	
5.8 UPDATE SITE PLANNING AND TOURISM DEVELOPMENT CONTROLS FOR MAYA ARCHAEOLOGICAL SITES IDENTIFYING VIEWSHEDS, BUFFERS AND WAYFINDING							
a. Work with the Archaeological Department and related stakeholders on contemporary update of controls. b. Seek advice from WTO/UNESCO and related Archaeological Institutes/Universities regarding standards. c. Undertake viewshed analysis and establish agreed benchmarks for spatial setbacks around assets (i.e. 200m thresholds).	M	BTB, NICH, MLA, TLA and local Village Councils and Communities	L	G-O	A	See Maya sites above	



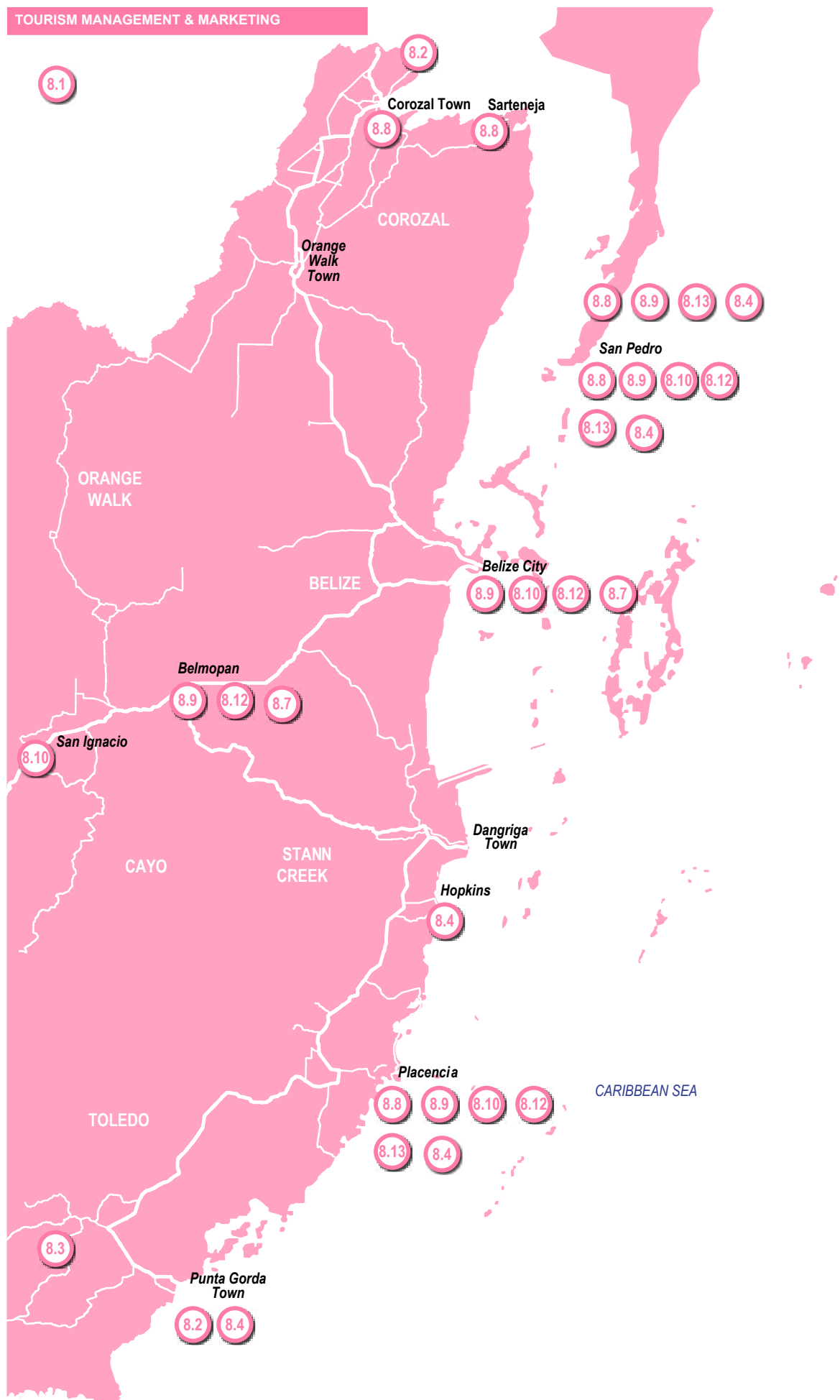
TRUNK INFRASTRUCTURE & CONNECTIVITY

ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
6.1 DESIGNATE KEY HIGHWAYS CONNECTING TOURISM DESTINATIONS (AND OTHER ROADS) AS 'SCENIC ROUTES' FOR PROTECTIONS, TREATMENT AND ACTIVATION.						
a. Use NSTMP to confirm National Scenic routes and develop a strategy for designation and treatments. b. Prepare Activation Plans for Scenic Routes and develop regulations in support of Landscape Protections (in viewsheds) and carefully sited Tourism Investment locations.	N	MIDH	L	G	B	Corozal to Sarteneja Road, Road to Caracol, Road to the west of Punta Gorda.
6.2 EVALUATE THE EFFICACY OF ALL KEY ROUTES TO SUPPORT EGRESS UNDER INUNDATION THREAT AND EXPLORE RAISED ROAD STRATEGIES AS REQUIRED.						
a. Use GIS and associated Flood Mapping to determine the vulnerability of key access routes. b. Identify most prone locations (via route frequency) - utilise information to devise climate adaptation solutions including road raising and/or levy treatments. c. Undertake Pilot Programme around Belize City for key protective measures.	N-M	MBECA and NEMO, NICH, BTB	L	G	C	Belize City Western and Northern Highways, Placencia Road, Hopkins Road, Independence Road, Monkey River Road, Southern Highway, Hummingbird Highway by Dangriga, Lib de Chetumal
6.3 MINIMISE THE IMPACT OF NEW INFRASTRUCTURE IN VULNERABLE SETTING - ADOPT A 'NET GAIN' ENVIRONMENTAL APPROACH AVOID-MITIGATE-OFFSET						
a. Engage with Ministries responsible for Infrastructure (Roads/Dams/Ports) to determined EES processes. b. Determine an approach in collaboration to ensure Environmental/Social/Cultural Safeguards are effectively addressed. c. Consider a 'Net Gain' approach & educate further on Habitat Corridor methodologies.	M	MIDH, MPUELE, MSDCCDRM	M	G	C	Recent and future road construction. Future roads and developments.
6.4 ADVANCE NEW CONNECTING MAIN AND LOCAL ROAD LINKAGES TO DESTINATIONS AND 'CIRCUITS' ENABLING ALTERNATIVE ACCESS (FOR TOURISM AND RESILIENCE)						
a. Undertake strategic research on road network, including any missing links or newly designated road connections to complete 'circuits' for tourism investment and attention. b. Work with tourism operators and industry in general on the definition of tourist Circuits. c. Create an offline documentation and publicity on Circuit pathways/alternatives and possible extensions	L	MIDH, BTB	H	G	B	Belize City Western and Northern Highways, Placencia Road, Hopkins Road, Independence Road, Monkey River Road, Southern Highway, Hummingbird Highway by Dangriga, Lib de Chetumal
6.5 AIM TO INCREASE POTABLE WATER STORAGE AND SEWAGE TREATMENT IN TOURISM DESTINATIONS, INCLUDING NEW SUSTAINABLE SYSTEMS						
a. Support new development that relies on private water storage supply and service. b. Seek Donor Support and funding mechanisms for fresh (potable) water in vulnerable terrestrial and caye locations as required. c. Explore the capacity of Reverse Osmosis and related systems. d. Seek International aid and advice on new technologies and options for improved water quality in destination locations.	M-L	BWS, MPUELE	H	G-PS-O	B	San Pedro, Caye Caulker, Placencia, Hopkins
6.6 DEVELOP FUNDING MODELS (SUCH AS TOURISM DEVELOPMENT CONTRIBUTIONS) TO IMPROVE INVESTMENT AND MAINTENANCE OF INFRASTRUCTURE						
a. Work with Finance and Investment Agencies to determine alternatives for Levy/Tax/Contributions in support of Tourism Growth and Development. b. Research global models of co-contributions enabling infrastructure upgrades or maintenance. c. Consider the introduction of a TDIC (Tourism Development Infrastructure Contribution) as a project cost % levy.	N	MFEDI, BTB	L	G PS O	C	All tourism sites
6.7 GROW CAPACITY OF PHILLIP GOLDSON INTERNATIONAL AIRPORT TO SUPPORT GROWING TOURISM ARRIVALS, WITH IMPROVED TERMINAL AS PRIMARY 'HUB'						
a. Undertake international benchmarking of airport standards (infrastructure, visitor facilities, service standards) to measure quality of existing Port. b. Plan for airport consolidation and growth for forecast market expansion and increased air traffic. c. Advance refurbishment of existing terminal as immediate term action.	M-L	BAA, BDCA, MIDH	H	G PS	B	Belize City
6.8 ENHANCE INTERNATIONAL-DOMESTIC SHUTTLE SERVICES AND FREQUENCY OF ACCESS TO REGIONAL DESTINATIONS- ASSESS FUTURE ROLE FOR MUNICIPAL AIRPORT AND NEW SUPRASTRUCTURES						
a. Undertake FS of International-Domestic Integration of Phillip Goldson - with linkages to outlying inland or coastal destination. b. Determine land capability of domestic airport sites for redevelopment or other viable functions.	M-L	BAA, BDCA, BACCL	M	G PS	C	Placencia, Independence area, Ambergris Caye
6.9. EXPAND THE CAPABILITY AND SERVICE OF NATIONAL INFORMATION & TECHNOLOGY (INTERNET)						
a. Engage with National Internet Service Providers for upgrading of service for 5G and beyond for maximum coverage (marine and terrestrial), including sensitively designed communication towers. b. Further develop digital (app-based) emergency management systems through phone connectivity (for cost community and visitors) for both climate threats and health emergencies (i.e. COVID). c. Further engage with applications (apps) development that support destination information, tourism accommodation, and experience links. Explore Apps with Tourism-Conservation opportunities. d. Use Open Source Data and like information gained from digital sources to inform public investment in destination and marketing / promotion programs.	N	BTB	M	G PS	A	National

REGIONAL LINKAGES & FRONTIER INTERFACES

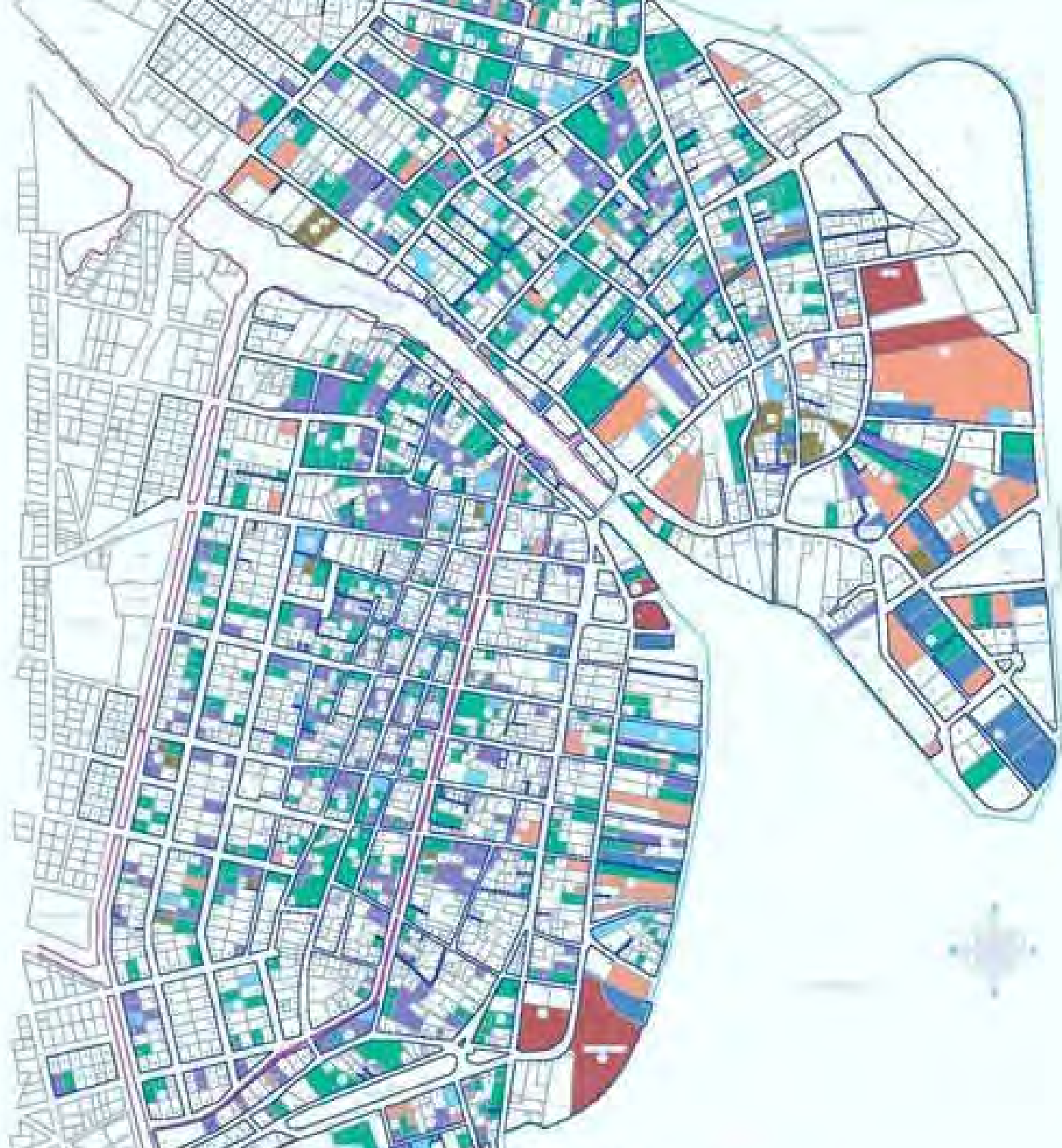


REGIONAL LINKAGES & FRONTIER INTERFACES						
ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
7.1 ENHANCE REGIONAL TOURISM CONNECTIONS TO CAYES AND INTERIOR THROUGH IMPROVED PUBLIC/PRIVATE TRANSIT– UNLOCKING POTENTIAL MARKET GROWTH						
a. Engage with transit service providers and possible new operators for business opportunities in Belize. b. Identify missing routes and opportunities to grow the provision of land, air and sea based services. c. Work with responsible Ministries to coordinate and regulate public and private transit services in Country to ensure a competitive market with a focus on growth.	M-L	MRTCDLLG	H	G-PS	C	Belize City, Placencia, San Pedro, Caye Caulker, Hopkins, Punta Gorda
7.2 WORK WITH NEIGHBOURING COUNTRIES TO DEVELOP INTERNATIONAL TOURISM LINKS AND FLUID CROSS-BORDER ROAD, SEA, AND AIR CONNECTIONS						
a. Work through diplomatic pathways to identify necessary steps to unlock regional tourism connections and secure pathways for domestic, regional and international guests. b. Consider common themes including a Maya forum as demonstration of coordinated pathways between Belize, Guatemala, Mexico, and Honduras. c. Establish stronger relationships with Internationally operating transit services (airlines, cruise ship, bus/coach).	M	Caricom Member state agreements, Regional Maya representatives, Meso-american Biological Corridor, Meso-american Caribbean Reef, BBRRS	L	G-PS	B	Guatemala, Mexico, Cancun, Honduras, the Caribbean
7.3 CONSIDER GROWING INTERNATIONAL CONNECTIONS IN SOUTHERN REGION TO ENABLE IMPROVED LINKS TO GUATEMALA AND HONDURAS (AIR AND SEA)						
a. Establish working group with Punta Gorda and southern region stakeholders to advance strategies for improved links. b. With assistance of Central Government and Diplomatic support, seek small craft air and sea links to PG airport. c. Undertake feasibility to determine necessary updates to PG Airport and Port for increased services. d. Strong focus on improved marketing/profile of southern region v sitor offer.	M	BAA, BDCA, BACCL	M	G-PS	B	Punta Gorda and Independence
7.4 STRENGTHEN NATIONAL TOURISM BUS NETWORK AND SERVICES WITH HUB AND NODE TERMINAL LOCATIONS, SUPPORTED BY ROADSIDE STOPS/AMENITIES						
a. Limit impacts of multiple Cruise operators in Port - associated congestion. b. Determine preferred Cruise operator for engagement on limits to service/diversification of craft. c. Further investment in Belize Port facilities (ongoing management control and staff training).	N-M	MSDCCDRM, CZMAI	L	G-PS-O	A	Belize City and other ports
7.5 DEVELOP NEW PRODUCTS BASED ON REGIONAL ROAD/TRAIL 'CIRCUITS' WHICH CONNECT DESTINATIONS FOR VISITORS TO STAY LONGER/SPEND MORE						
a. Undertake Audit of existing marina and private docking facilities on the coastline, with focus on designated Tourism Nodes. b. Avoid approval of further private docks/craft storage - focus investment in a single public docking location and associated safe boat storage where feasible. c. Consultation of ferry services, mariners, and recreational boat operators to better understand routes and circuits to assist in the development of new products.	L	BPA, CZMAI	M	G-PS	A	Belize City, Placencia, San Pedro, Punta Gorda
7.6 ENCOURAGE SENSITIVELY SITED AND DESIGNED MARINA FACILITIES AT COASTAL NODES ONLY FOR REGIONAL NAUTICAL RECREATION AND AQUACULTURE TOURISM						
a. Complement the National Public Transit Network with small (ferry) craft coordination. b. Undertake visitor surveys and determine user demand to enable identification of key routes. c. Liaise with existing private operators in consideration of a unified (branded, pricing, service provision) nationalized ferry network between Belize City and outlying tourism nodes (and between proximate nodes).	N-M	BPA, CZMAI, MBECA and Fisheries Department	H	G	B	San Pedro, Caye Caulker, Placencia, Belize City
7.7 ENHANCE FREQUENCY AND COMPETENCE OF PUBLIC MARINE (SMALL FERRY CRAFT) TRANSIT NETWORK BETWEEN HUB, NODES AND TOURISM DESTINATIONS						
a. Undertake feasibilities and negotiations in aid of a nationalized public bus network with timetabling and servicing allied with associated air and sea transport from Belize City. b. Work to coordinate regional bus services from BC to outlying nodes with sub-terminal facilities and operating/maintenance centres. c. Undertake planning of bus transit routes (stops) and consider locations for roadside services/visitor amenities/refuelling locations on national highway corridors along designated Scenic Routes. d. Undertake improvement of bus terminal facilities at outlying nodes and hubs.	L	MIDH, MTID and BTB	H	G-PS	B	Highway intersections, in between locations along trips.
7.8 LIMIT MARINE AND PORT GROWTH (IN PARTICULAR INTERNATIONAL CRUISE TOURISM) AT NATIONAL HUB AND SUPPORT SMALL CRAFT OUTWARD CONNECTIONS						
a. Work closely with local tourism stakeholders on strengthening of local circuits. b. Identify opportunities via collaborative workshops designed to close tourism loops/circuits and identify locations for improved/new products, accommodation and activities. c. Devise and package circuit 'experiences' for 1-4 day visits. d. Focus on single circuit per region (with choice redirection, part completion or variances).	N	MTID, BTB	L	G	B	Maya Mountains, Maya sites, Crooked Tree Lamanai area
7.9 WORK WITH CRUISE INDUSTRY TO ENCOURAGE LONGER STAY OR OVERNIGHT VISITOR OPTIONS FOR WIDER TOURING OF THE REGION						
a. Develop engagement forum for Cruise Ship Companies (currently 9 in No) to discuss expanded service. b. Table options for 'hop on-hop off' services (1-7 days) to ensure a local/host nation benefit. c. Discuss with line Ministries on alternatives for regulation to ensure visitation of greater duration. d. Investigate opportunities for cruise ship port and berthing facilities that do not negatively impact existing environmental and marine conditions.	N-M	Cruise Industries, MTID,	M	G PS O	A	Existing and proposed ports



TOURISM MANAGEMENT & MARKETING						
ACTIONS / STEPS	TIMING	RESPONSIBLE AGENCY	\$	WHO PAYS	PRIORITY	LOCATION
8.1 ADOPT THE SPATIAL TOURISM FRAMEWORK AS A NATIONAL NETWORK OF HUB, NODES & CORRIDORS TO AID DECISION MAKING ON PLANNING & INVESTMENT						
a. BTB, in association with line ministries to adopt and then promote Spatial Framework - with any legislative support. b. Seek stronger linkages across National Land Planning, Transport, Investment, and Environmental Management Sectors. c. Elevate Spatial Framework awareness through dissemination, public information campaign and operation support, led by BTB.	N	MIDH	L	G	B	Nationwide
8.2 IDENTIFY OPPORTUNITIES FOR SPECIAL ECONOMIC OR TOURISM ZONES TO BE APPLIED TO KEY LOCATIONS FOR TOURISM INVESTMENT AND MANAGEMENT						
a. Identify discrete tourism development locations as sites for SEZ or TZ. Develop site specific locational design and development regulations. b. Prepare and promote Investment Prospectus with allied development control regime. c. Undertake Pilot Program and monitor accordingly.	N	MIDH and Land and Survey Dept., MSDCCDRM	L	G	A	Chetumal, Punta Gorda
8.3 ESTABLISHED IMPROVED PROTOCOLS FOR LOCAL VILLAGE/TOWN COUNCIL INPUT INTO NATIONAL TOURISM PROJECT ASSESSMENT.						
a. Work with all Tourism Nodes (Local Representative Councils) on processes enabling improved agency in the evaluation of project of influence. b. Consider governance structures that enable local forums to contribute to National Tourism Investment opportunities where appropriate. c. Ensure local twn/village council representatives are well informed/briefed/cognisant of national burism growth agenda (Tourism-Conservation) and associated protections.	N	MTID, BTB and town and village councils	L	G	A	Southern Belize Maya community
8.4 AVOID THE PRIVATIZATION OF CAYES, ISLANDS, AND BEACHFRONTS, AND COMPULSORILY ACQUIRE OR BUY BACK VULNERABLE LAND WHERE POSSIBLE						
a. Measure existing EES and associated Safeguards protocols against other Global standards to determine consistency. c. Seek support of international donors and like agencies in development of assessment protocols. b. Recognizing the vulnerability/uniqueness of Belizean natural context, adopt heightened measures to ensure protection of key assets. d. Consult on Assessment Criteria accordingly.	N-M	MSDCCDRM, CZMAI	L	G-O	A	San Pedro, Caye Caulker, Placencia, Hopkins, Punta Gorda
8.5 DEVELOP NEW/REFINED EVALUATION CRITERIA FOR ASSESSMENT OF TOURISM DEVELOPMENT (OF DEFINED MAGNITUDE) – ‘HOW DOES IT FIT AND AID BELIZE?’						
a. BTB to work with other Ministries and any Investment Review Departments to improve Tourism Development assessment processes. b. Undertake Global Benchmarking on Host Community-Tourism Development Assessment criteria. c. Only apply to projects of significance (extent/cost/locational estnitivity). d. Move away from basic Triple Bottom Line appraisal - with increased emphasis on host community benefits and environmental capacit .	N-M	MTID and BTB	L	G	B	Proposed port locations. Areas of tourism expansion.
8.6 PROMOTE THE USE OF CLEAN ENERGY AND SUSTAINABLE LAND AND MANAGEMENT FOR TOURISM DEVELOPMENT AND SERVICES						
a. Central Government to oversee individual Strategic Spatial Plans for Tourism Nodes, addressing suite of complex development growth, conservation and resilience/future proofing matters. b. Translate Strategic Plans into Regulations under Land Planning and establish a compliance/enforcement unit to monitor accordingly. c. Legislate harsh financial penalties for non-compliance	N-M	MIDH and Land and Survey Dept., MSDCCDRM	L	G	B	All tourism sites
8.7 FOCUS ON DEVELOPMENT CONTROL AND COMPLIANCE BY AUTHORITIES, LIFTING THE STANDARD OF TOURISM DEVELOPMENT, FACILITIES AND INFRASTRUCTURE						
a. Establish a Statutory Entity under line Ministries for improved monitoring and inspection of Tourism development/facilities. b. Work towards the institution of a system of carefully formulated code of covenants between land owners and developers and government agencies that favour integrated development planning.	N-M	MIDH & Land & Survey Dept., MTID, MSDCCDRM	L	G	B	Belize City, Port locations, Belmopan
8.8 BUILD CAPACITY WITHIN EDUCATION SECTOR TO DELIVER DECENTRALIZED TOURISM TRAINING THAT CAN ENGENDER IMPROVED LOCAL JOBS AND SERVICES SUCH AS TOURISM TRANING ACADEMY						
a. Undertake National Mapping of Land Ownership/Tenure - with clear definition of private islands, waterfront and natural coast-cay s-landscapes. b. BTB to work with other ministries and any investment review departments to limit privatization of key public assets - in particular those in remote or sensitive locations.	M	MIDH & Land & Survey Dept., MSDCCDRM & Fisheries Dept, CZMAI	L	G	C	Placencia Lagoon, Corozal Bay, Sarteneja, San Pedro, Caye Caulker, other cays
8.9 INCREASE CAPACITY OF LOCAL TOURISM AUTHORITIES TO MANAGE OPERATOR COMPLIANCE (NOISE, BEHAVIOUR, WASTE, ENVIRONMENTAL FIT)						
a. Prepare a new Belize Resilience Action Plan for 2030 based on the Tourism Adaptation Plan. b. Promote widely with central and regional government agencies. c. Highlight priority actions for infrastructure development (i.e. raised roads) in BC, with allied protective measures in Tourism Nodes/Corridors.	N-M	MIDH and Land and Survey Dept., MSDCCDRM	L	G	B	Belmopan, Belize City, Placencia, San Pedro and Caye Caulker
8.10 LEAD A NATIONAL PROGRAM FOR TOURISM RESILIENCE PREPAREDNESS WITH FOCUS ON HUBS, NODES AND CORRIDORS.						
a. Register the extent and application of sustainable energy initiatives in Belize - Map accordingly. b. Through the support of global NGOs and international energy companies, examine means for increased adoption of clean energy opportunities. c. Adopt Pilot programmes for public infrastructure (i.e. Photo Voltaics/Water Storages).	N	MIDH & Land & Survey Dept., MSDCCDRM & MPUELE	M	G PS O	C	Belize City, San Pedro, Placencia, San Ignacio
8.11 ENSURE STRATEGIC, RESILIENCE AND SETTLEMENT PLANS ARE CONFIRMED FOR EACH TOURISM NODE AND LINKING CORRIDORS, CONFIRMED IN PLANNING LAWS						
a. BTB to work with line Ministries to grow capacity in GIS and related information for resilience support. Support CZMAI and other agencies involved in mapping current and future flood risks. b. Gather Lidar digital terrain model data, historical flood data, physical characteristics, rainfall records, flood gauge records and drainage data to inform flood hazard map c. Evaluate other hazards. d. Generate hydrologic and hydraulic modelling with probable flood flows and volumes under future climate scenario	N-M	MTDR and BTB	L	G-O	C	University of Belize working with other institutions
8.12 TIGHTEN ENVIRONMENTAL EFFECT STATEMENT AND LIKE ASSESSMENT PROCEDURES TO ENSURE PRIORITISATION OF NATURAL VALUES AND CLIMATE CHANGE ISSUES						
a. BTB to work with the University of Belize (Tourism Department) for improved tertiary training on Tourism delivery. b. Extend education campaign to technical colleges and secondary school programmes. c. Seek support from international donors (i.e. LuxDev or SwissContact) commonly supporting vocational training and related supports for host communities.	N-M	MHDFIPA and MoECST	L	G-O	C	Belize City, Belmopan, San Pedro, Placencia
8.13 ESTABLISH RELATIONSHIPS BETWEEN GOVERNMENT AND UNIVERSITIES TO GROW GIS CAPABILITY IN SUPPORT OF RESILIENT TOURISM DEVELOPMENT						
a. Establish national regulations for destination environmental amenities - using benchmarked international standards. b. BTB to work with Tourism Node (Town Council or other representative panel) to establish systems and personnel for oversight and monitoring. c. Training and ongoing capacity building with local representatives.	N-M	BTB and Tourism Police	M	G PS O	C	Caye Caulker, San Pedro, Placencia
8.14 RESTORE TOURISM STANDARDS PROGRAM TO BENCHMARK WITH OTHER REGIONS (IE. ASEAN) & PROMOTE INFORMATION TECHNOLOGIES						
a. Undertake Global Benchmarking of existing tourism standards (scope and detail). b. Measure existing Belize Standards for Tourism for suitability. c. Establish task force to focus on compliance with Tourism standards with annual registrations d. Embrace new tourism technologies and improve connectivity and shared visitor information.	N-M	MTDR and BTB	M	G	B	All tourism locations
8.15 WIDEN MARKETING AND PROMOTION OF BELIZE FOR ITS DIVERSITY TO GLOBAL MARKETS – WITH RENEWED FOCUS ON GREEN-CLEAN-NATURAL IMMERSION						
a. BTB to undertake further global market research on Belize's position in the tourism sector. b. Update and tailor marketing campaign on revised position.	L	MTDR and BTB	M	G-PS	B	NA





PART 5

ADAPTATION PLANS

OUTSTANDING 1	6
OUTSTANDING 2	25
ARCHITECTURAL	82
CITYSCAPE 1	390
CITYSCAPE 2	232
NOT LISTED	57
TO BE REVISED	26

TOTAL 818

BELIZE CITY MASTER PLAN
Heritage Trust Catalogue

GRAPHIC SCALE:



Belize City- Downtown

SCALE:

DATE:

JUNE 2011

SHEET NO.:

001

PLAN:

CATALOGUE: Protection Levels

REF.:

Protection Categories reviewed.dwg

OVERVIEW

Belize's rich marine and terrestrial reserves represent some of the richest, most intact ecosystems in the world. Belize is also culturally rich with its Maya, Spanish, Garifuna, and Kriol history which translates into its food, music and art. Together, this mixture of culture and nature provides a unique tourism destination. The tourism industry should continue to support conservation, management and upgrading of these ecological and cultural environments to ensure Belize's long-term viability. The Belize Tourism Board is seeking to expand its positive influence over how development occurs in the country. Building on Belize National Sustainable Tourism Master plan (2011), this section provides an overview of critical priorities focusing on climate adaptation and resilience.

The Adaptation Plans resulted from a collaboration between Hansen Partnership, the University of Melbourne, and the University of Belize. The process was informed through a review of the existing NSTMP documentation and identification of significant contemporary issues facing the tourism industry today. To establish local community guidance, a series of facilitated workshops were conducted online in July-August 2022 as well as an extended site visit for two weeks from 16th January through the 28th. The collaborators met with groups across the country.

The following document complements the first volume on recommendations and focuses on Geographic Information System (GIS) spatial planning approaches for three regional areas and three localised sites within each region. The mapping and analysis provide region-to-site-specific climate adaptation and resilience strategies supporting tourism for the near, mid-, and long-term. Approaches include pertinent strategic, physical planning and operational approaches addressing critical issues we identified in the tourism sector. Given the interconnected nature of tourism to many other sectors of livelihood, conservation areas, economics, and culture across Belize, the proposals provide a broad and multi-sectoral contribution for Belizeans to impact international, regional and national tourism flows.

The three regional locations include Ambergris Caye, Belize City and surrounds and the Placencia Peninsula. Selected locations within Belize City, San Pedro, and Placencia are targeted for further planning and design analysis and proposals.

Recognizing that the tourism industry is supported through a network of public and private sector interests and that they have committed to decades of conservation and support for cultural recognition, the Adaptation Plan seeks to build on these practices to maintain support in line with the country's reputation as a global nature and culture destination. This document highlights the need for stronger national coordination in collaboration with local town and village councils to advance strategic tourism directions, local investment, and management matters in the short to medium term, and greater acknowledgement of longer-term challenges and resilience in addressing climate change.



REGIONAL ASSESSMENT FOR ADAPTATION

Belize is a relatively small country. It takes less than eight hours to travel east-to-west or north-to-south across the country of Belize. These relatively short distances do not match the incredible ecological and cultural diversity that one discovers across Belize. In the 1980s and 90s, critical efforts ensured that over 50% of Belize's territory was held in conservation. These marine and terrestrial reserves continue to support the rich biodiversity and cultural landscapes across Belize. Regions are also known for distinct cultural heritage and identity, including Kriol, Maya, Garifuna and Mestizo populations. Given the cultural and ecological variety across Belize, the tourism industry must establish a regional planning scale to ensure ongoing conservation and enable expanded education and literacy around these areas and cultures. Piecemeal development and uncontrolled tourism practices pose serious risks for Belize. Unbridled development will eventually undermine the very qualities that attract tourists from around the globe.

Regional planning includes considering future conservation strategies to maintain the high-quality ecosystems across the country. Carefully designed roadways and development practices as well as sanitation for wastewater and other infrastructure development will be critical to address.

Belize is an exclusive, multicultural, sustainable destination in the Central American Caribbean. It is a destination where the authenticity and friendliness of its people, coupled with the uniqueness of a tropical natural environment can be actively experienced within a conserved world.



LIVING WITH, AND PLANNING FOR, FLOODING

Belize is vulnerable to hurricanes, storms, and associated flooding, wind damage, and storm surge. The country's low-lying terrain increases the effects of flooding and sea level rise. Belize has experienced 14 storm events during the period 1931- 2010, with damage to agriculture and tourism sectors. Low-lying coastal terrain, including Belize City and the many Belizean islands, is prone to storm flooding and will be impacted by sea level rise. Many rivers also flow through Belize and can flood with torrential rain in the high mountains to the west. Most of Belize's infrastructure, such as public buildings, health, commercial and transportation facilities, are on or near the coast or a river.

Belize is also at risk to extreme temperature events and drought in certain areas. According to the Natural Disaster Hotspot study by the World Bank (WB), Belize is the 61st highest exposed country in the world for relative mortality risk from multiple hazards and ranked 8th out of 167 countries for climate risk.

Noting Belize's terrestrial and coastal conditions, as well as the popularity of maritime and reef tourism, careful planning and investment needs to go into the tourism locations for hurricanes and flooding. Flooding will prevent the capacity for a 'business as usual' approach. Given the risks associated with flooding, it is critical to develop site scale near-, mid- and long-term adaptation strategies. As Belize is also reliant on outside funding to support large-scale infrastructure investments, it is essential to establish clear planning efforts.

RECOMMENDATION FOR TARGETED REGIONS

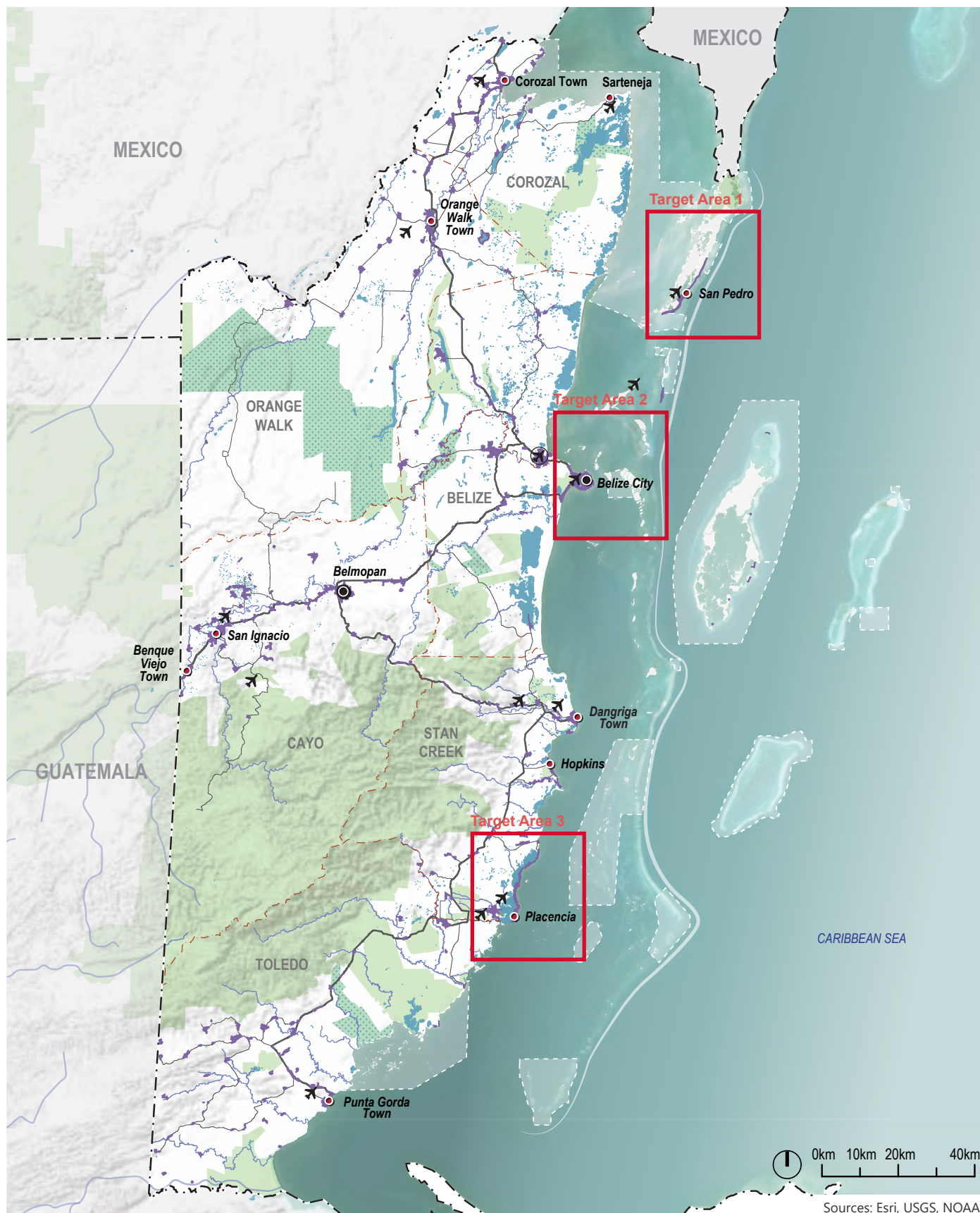
The Belize Tourism Board (BTB) selected three target regions for further investigation: Ambergris Caye, Belize City, and Placencia. In response, regional analysis for each of these areas has been provided. Proposals are based on regional community meetings, feedback sessions, and a site visit. Through this research, it became apparent that tourism functions regionally across Belize. Belize's tourism activities and opportunities are diverse and distributed across the country. There are multiple destinations and, from any one of these local hubs, tourists can venture to other parts of the country. In addition to this regional connectivity, Belize's tourism shifts across land and water, offering marine and terrestrial nature experiences and recreation with cultural and adventure-based destinations. The relatively small size and limited routes across Belize create opportunities for quick transitions across activities.

To further explore how tourists move through Belize, people associated with the Belize Tourism Board were invited to map out sequences of activities for short (5-8 days) and longer (10-14 days) trips. From this assessment and mapping, tourism combinations were identified that emanated from specific town across Belize. These locations provided their own local culture, lodging types, and recreation. Distinct natural physical amenities defined each area, offering some distinct options.

Several zones across Belize were then mapped, mostly based on existing conservation and access issues that are remote and considered 'hotspots' as places of globally unique biodiversity.



Daybreak at Swing Bridge, New Year's Eve 2017. Photo credit: Alan Jackson.



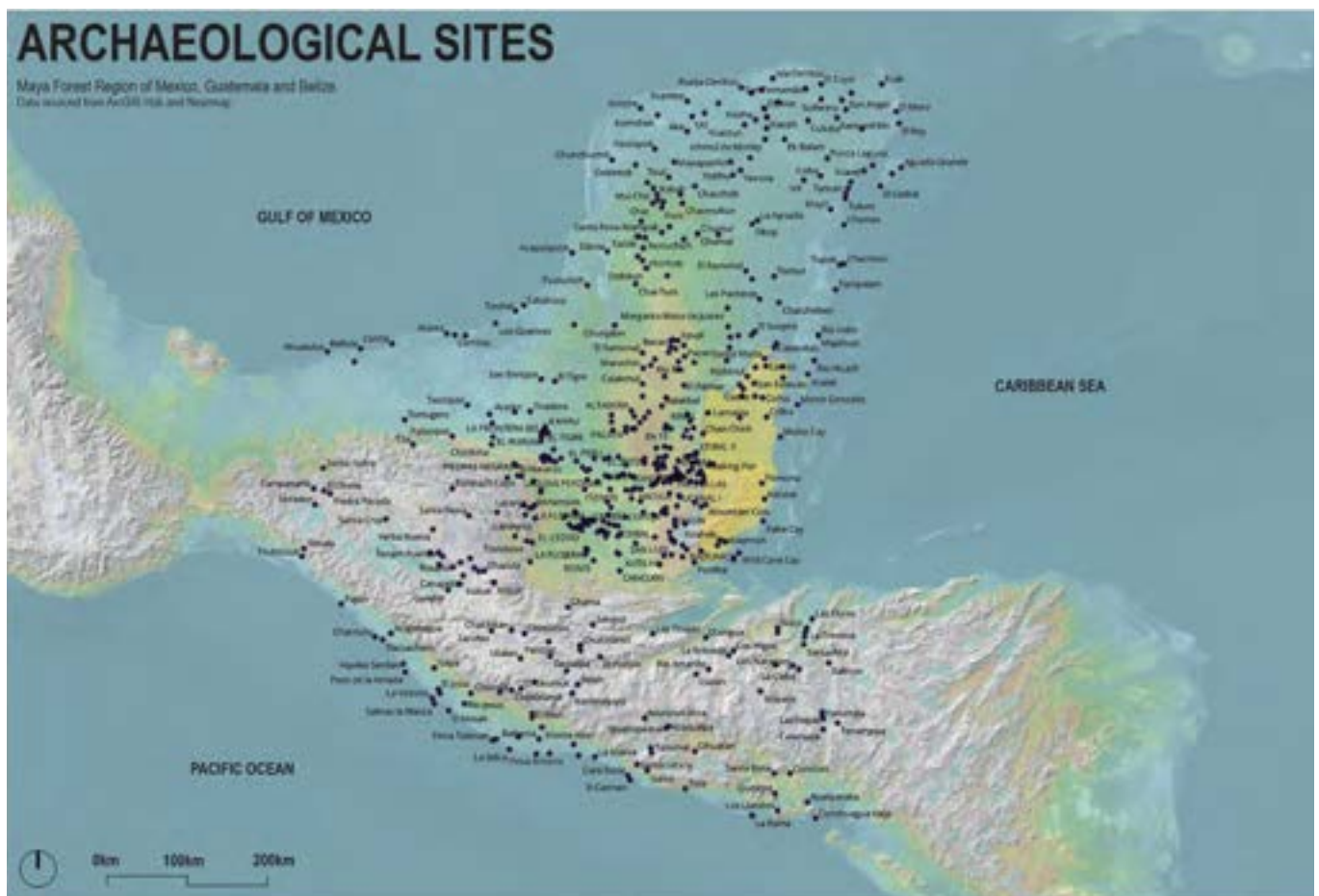
UPDATE OF NATIONAL SUSTAINABLE TOURISM MASTER PLAN OF BELIZE

National Destination Context

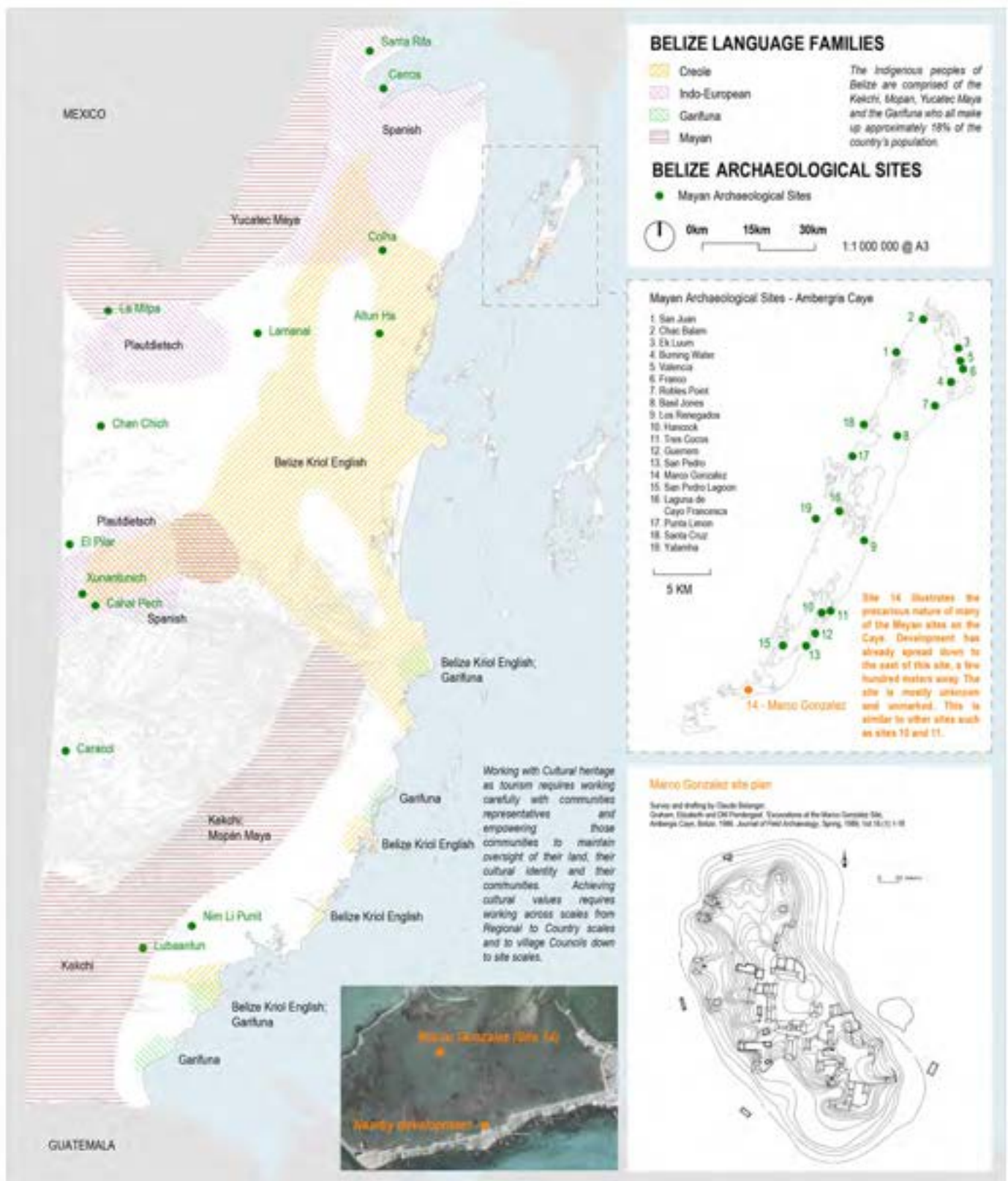
Legend

	International Boundary		Capital City		Private Protected Areas		Barrier Reef Edge
	District Boundary		City		Terrestrial Protected Areas		
	Arterial Roads		Town / Village		Domestic Waterbodies		
	Local Roads		International Airport		Waterways		
	Urban Areas		Public Airstrips		Marine Protected Areas		

DATA SOURCE: Biodiversity & Environmental Resource Data System of Belize, Land Information Center of Belize

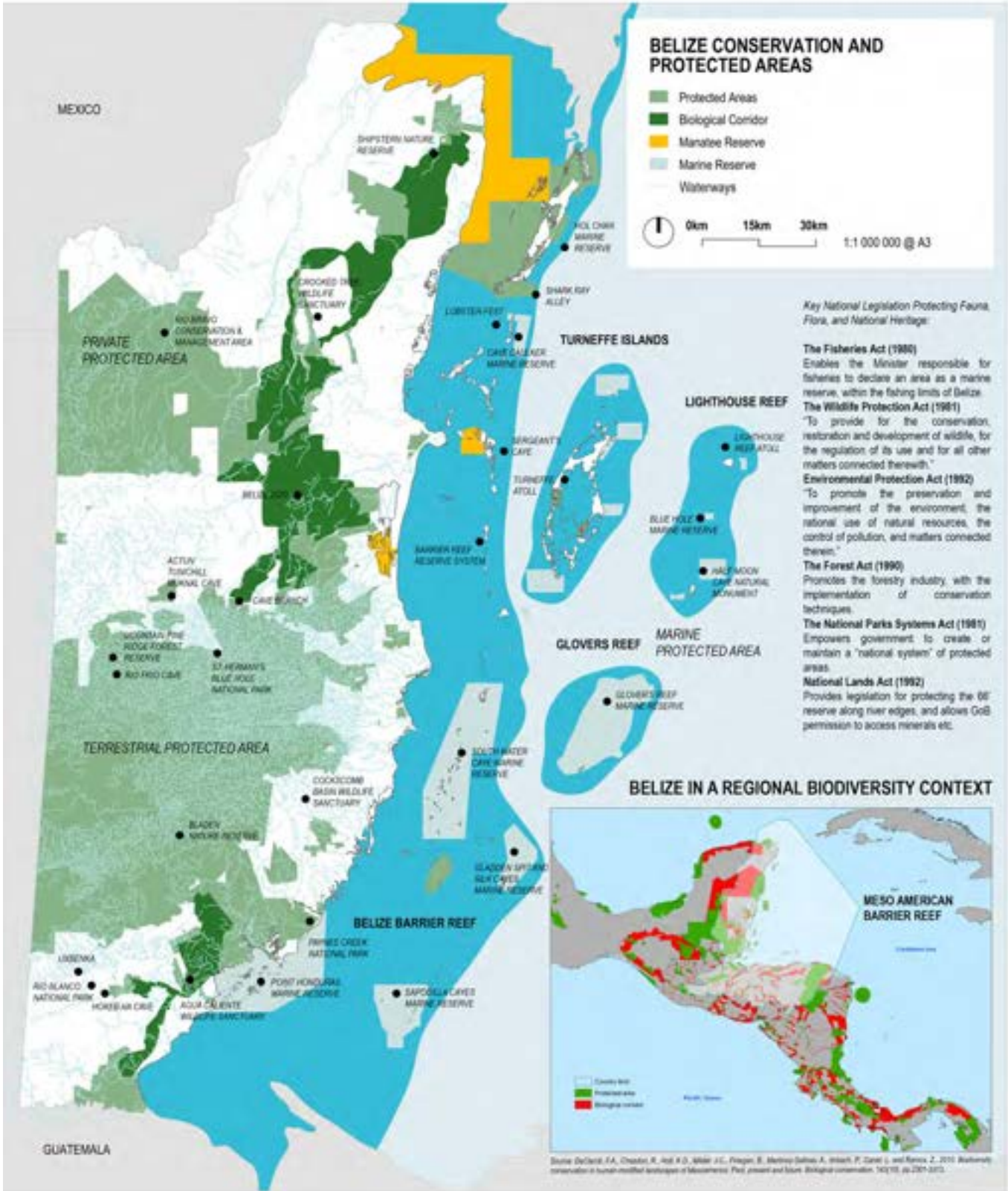


This diagram conveys point locations and names for 530 Maya archaeological sites (data sourced from ArcGIS Hub) across the region overlaid with topography (data sourced from Nearmap). Belize, highlighted in yellow, has a high concentration of archaeological sites. Drawing is courtesy of the UEDLAB.

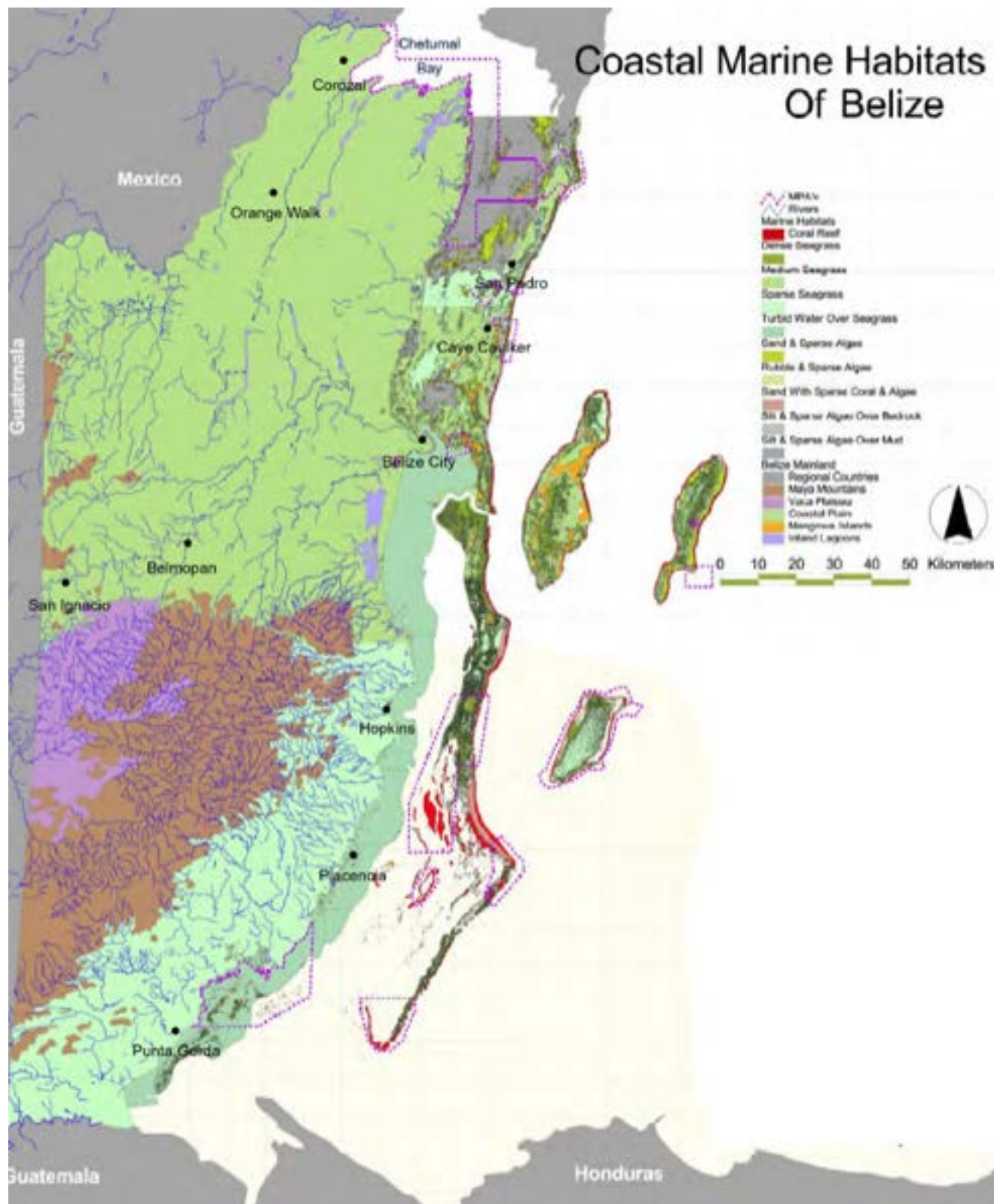


Belize includes diverse cultures spread across the country with many hidden archaeological sites. Most of the 19 locations on Ambergris Caye are hidden or inaccessible. Some are buried and forgotten. The former Maya village of Marco Gonzalez illustrates the limited attention these sites are receiving and the threats that development pressures impose.

Site Plan courtesy of the UEDLAB, University of Melbourne 2023



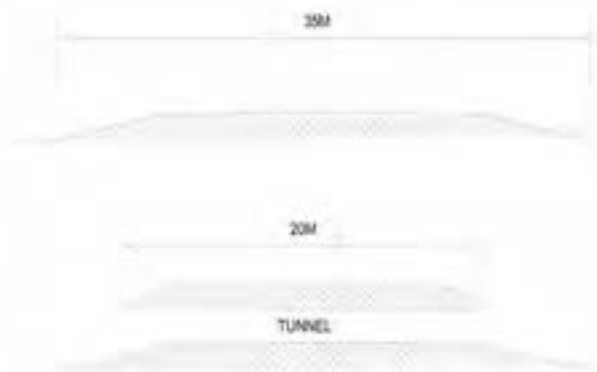
Site Plan courtesy of the UEDLAB, University of Melbourne 2023



Belize City Habitats. Source https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcQiYOqliQOmmVLBdguZLkcWa5tLD_DURKfhPyk1eQBQFNSLY-nW



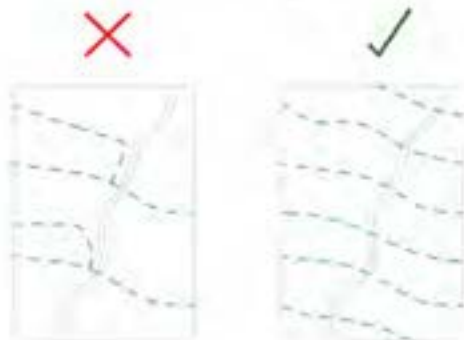
Site Plan courtesy of the UEDLAB, University of Melbourne 2023



REDUCE THE (DISTURBED) RIGHT OF WAY.
 REQUIRE TUNNELS EVERY 150M-300M.
 CROSSING SHOULD BE LOCATED IN AREAS OF HIGH WILDLIFE TRAFFIC
 BASED ON UPFRONT MONITORING. CONSIDER A VARIETY OF WILDLIFE
 MOVEMENTS INCLUDING BIRDS, INVERTEBRATES, BATS, REPTILES AND
 MAMMALS.



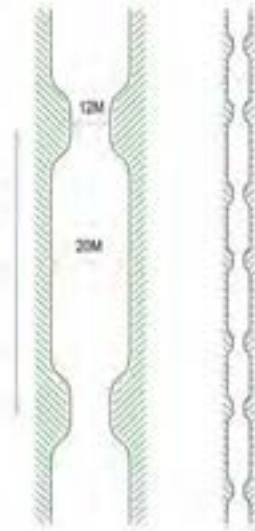
OVERSIZE DRAINAGE PIPES. ALSO, CONSTRUCT MULTIPLE
 CROSSING STRUCTURES AT A CROSSING POINT TO ACCOMMODATE
 DIFFERENT SPECIES PREFERENCES. FOR EXAMPLE, SMALL
 MAMMALS PREFER PIPE CULVERTS FROM 0.3M - 1 M IN DIAMETER.
 USE STUMPS AND BRANCHES ALONG THE GROUND TO PROVIDE
 SMALL ANIMAL COVER (E.G. REPTILES, AMPHIBIANS, RODENTS, AND
 INVERTEBRATES). EARTHEN FLOORING IS PREFERRED TO
 CONCRETE OR METAL FLOORS. SLOPED EARTHEN SIDES ARE ALSO
 SEEN AS VALUABLE.



KEEP DRAINAGE CHANNEL FLOW INTACT

Bridges, culverts, canopy bridges, land bridges, fencing, habitat
 enhancement and local fauna management are all strategies for
 managing wildlife. Small high bridges that allow enough light for
 vegetation work better than culverts for habitat crossings. Connecting
 upland habitats versus low lying regularly flooded areas ensures more
 viable habitats with less upkeep. Flooded underpasses require periodic
 replacement of the cover removed by flooding and the removal of
 obstructions that impede movement of small mammals, carnivores,
 and reptiles. Fencing should be used to direct animals towards
 crossing structures. This can include fencing, guard rails, raised road
 sections and embankments at least 2 m high. For roadways with deep
 drainage, ramps should be installed to allow trapped animals to
 escape. Where crossings include water flow, there should be access to
 connect to the surrounding terrain. Make sure suitable habitat occurs
 on both sides of the crossing. Control and reduce human activity near
 each crossing structure. At least one crossing structure should be
 located within an individual's home range. Because most reptiles,
 small mammals, and amphibians have small home ranges, metal or
 cement box culverts should be installed at intervals of 150-300m.

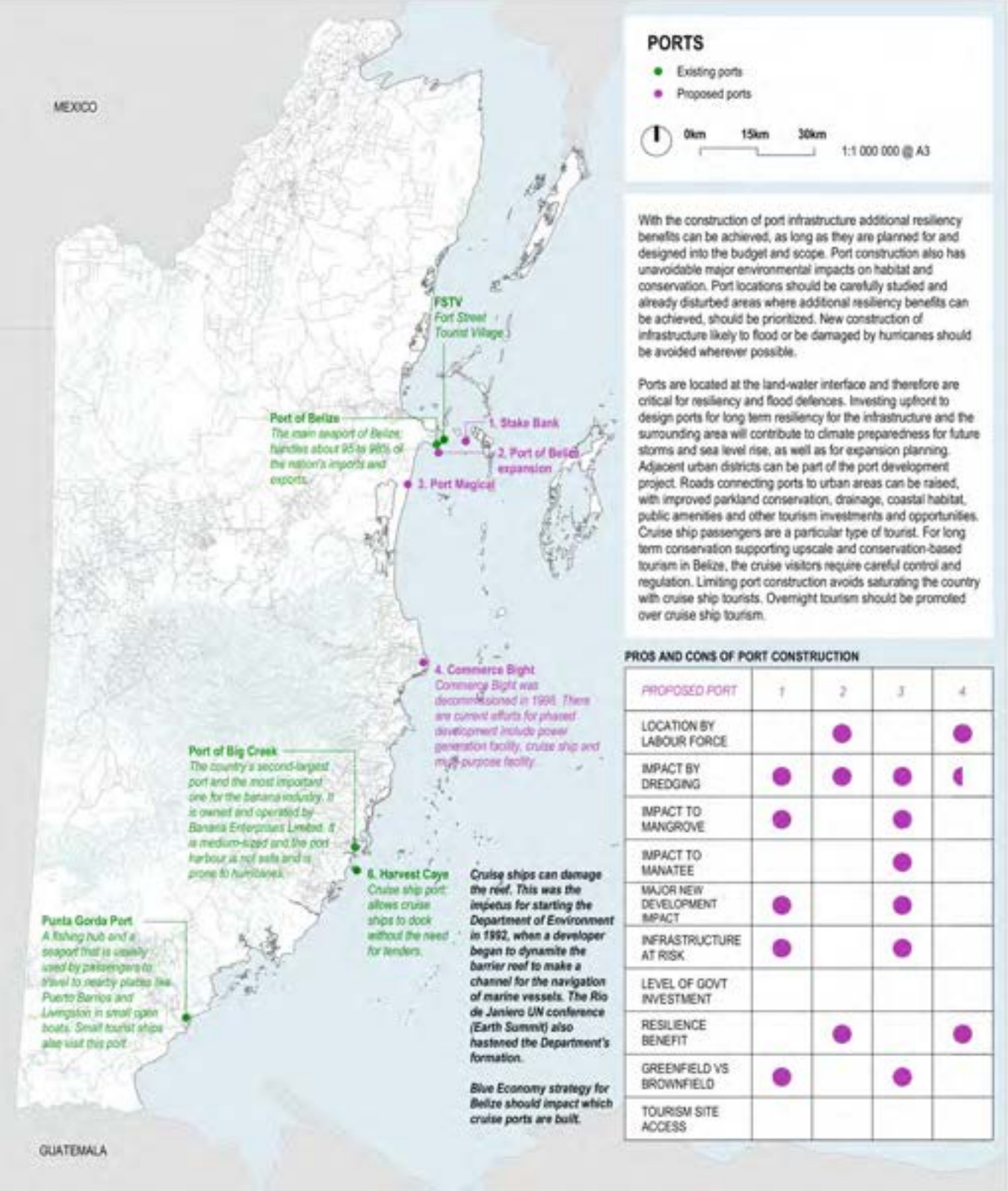
DETERMINE LOCATIONS FOR
 CONSERVATION CORRIDOR
 CROSSINGS (ROAD
 NARROWING) BASED ON
 EVIDENCE OF WILDLIFE
 CROSSINGS. ESTABLISH A
 MAXIMUM DISTANCE BETWEEN
 CROSSINGS OF NO MORE THAN
 1500 METERS.



INCLUDE CONSERVATION ZONES
 ALONG ROADS IN INTERVALS BASED ON
 IDENTIFIED WILDLIFE CROSSING AREAS.



AUDIT LONG LASTING IMPACTS FROM DISTURBANCE
 INCLUDE BURIED SILT FENCES AND COLLECTION PONDS
 WITH HAY BALES OR COIR MATS: ANCHORING TO
 PROVIDE EROSION CONTROL.



Site Plan courtesy of the UEDLAB, University of Melbourne 2023



Site Plan by the UEDLAB, University of Melbourne 2023



01. AMBERGRIS CAYE

Ambergris Caye has been an international destination for scuba diving, snorkelling, fishing, visiting beaches and engaging with culture. Rapid development has occurred over the last decade, with land to the north having already been laid out and sold. Resorts and condominium developments, as well as homes, are all being constructed at a rapid pace. Development adds economic value in the near term, while creating higher mid-to-long-term risks and costs due to investing within flood-prone areas. Development pressures are straining the local and national government in terms of design, permitting, and construction.

While development is rapidly occurring with limited oversight, Ambergris Caye's tourism industry is completely reliant on the surrounding environment. This includes the beaches, reefs, lagoons, mangroves, and wetlands. Establishing a carrying capacity and controlling development is necessary to preserve and manage ecosystem health supporting the wildlife including fish, bird, and other species that attract tourists.

Planning around conservation, recreation, public space, transportation, and infrastructure (sanitation, utilities, water) planning is **essential** to inform development practices.



San Pedro, Ambergris Caye. Source: <https://remaxbelizealestate.com/belize-real-estate/ambergris-caye-utilities/>

Building on the Coastal Zone Management Authority & Institute (CZMAI) 2016 Master plan, a collaboration is recommended, between CZMAI and the Belize Tourism Board (BTB) and to combine tourism with conservation strategies moving forward. These are both essential to the success of Ambergris Caye. It is recommended that an environmental planning and conservation management team establish oversight over design and construction practices to ensure that the tourism industry and natural environments maintain its high quality and can be resilient in the face of climate change.

To quote the Ambergris Caye Master plan 2016: *“Too often, while development takes place in the interest of promoting productive tourism activities, we fail to recognize the basic objectives of long-term protection of the natural resources of the coastal zone. In our haste to compete we ignore the need to plan hence, the process becomes one of crisis management and shortsightedness due to the fact that consideration was not taken as to what the cumulative impacts of the development activities would have on the reef and other sensitive ecosystems.”*

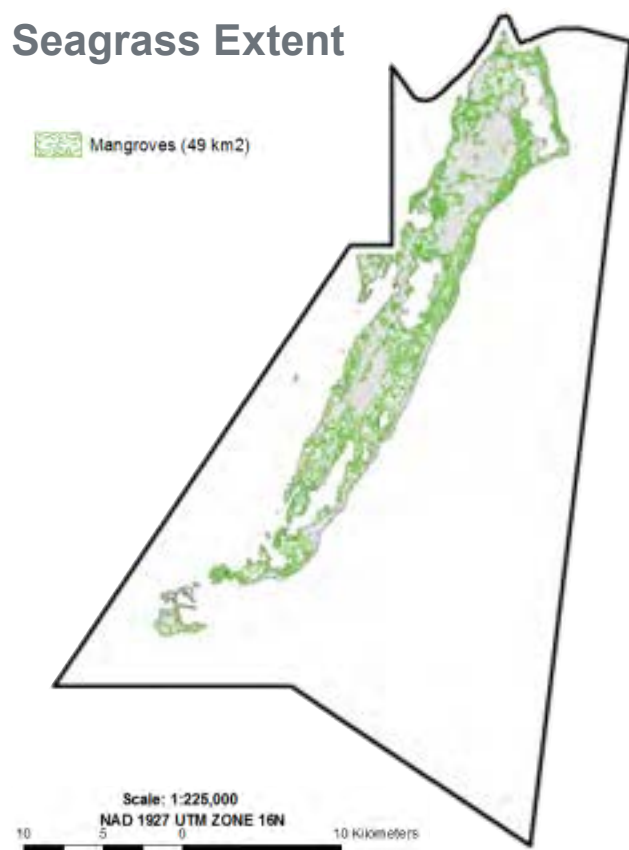
Ambergris Caye should celebrate its Maya history and preserve and invest in Maya sites. Ambergris Caye has a rich Maya history represented by two Pre-Classic and multiple Classic sites on both the western and eastern sides. The coastal margins were heavily settled with larger communities on the windward side of Ambergris Caye covering several hundred square meters and benefited from long - distance trade. Tres Cocos and Hancock represent two Late Classic period settlements. These sites are not excavated. Surface collections yielded high quality shards of imported pottery and artifacts (basalt grinding stones, obsidian blades), suggesting a mixed fishing and trading economy. Most sites do not have monumental architecture (structures built on top of platforms as temples). Most of these are buried, hidden, or inaccessible and unmarked at this time. The BTB should work with Maya representatives to further embrace and improve Maya sites. All development in San Pedro should minimize negative impacts on archaeological remains and sites. Development in San Pedro needs to also avoid degrading ecologically sensitive areas.



Marco Gonzalez Maya Site, Ambergris Caye. Source: <https://ambergriscaye.com/marcogonzales/>

New investments should contribute to protecting the natural resources and cultural heritage along the coast. Public and private interests need to be carefully considered to ensure that the carrying capacity of the island and the health of the ecosystems (reef, mangroves, lagoon) are maintained and can support the fish and habitats for tourism. The CZMAI noted a number of important ecosystems across Ambergris Caye. This includes the reef, mangrove, lagoon and the seagrass beds. Removing and developing on top of these ecosystems impacts the health and long-term viability of San Pedro as a tourism destination. Better regulations and oversight to limit mangrove removal and to rebuild and maintain mangrove beds constitute an essential resilience approach.

Seagrass Extent



Parts of San Pedro provide critical infrastructure and utilities for the town. These are interwoven with the marine and terrestrial ecosystems. Electricity is brought over from the mainland. Sanitation is by lagoon treatment and has been an ongoing issue. For the existing waste-water system, we recommend identifying and purchasing land for the future expansion of the lagoon treatment.

In addition, new wastewater treatment strategies are required for the development areas to the north. We recommend exploring distributed, community, and centralized wastewater treatment systems to determine what will work best given the low-lying nature and high-ground water on Ambergris Caye.

Mangrove Extent



Ambergris Caye is layered with sensitive habitats from the outer reef to the beaches, mangroves, and seagrass beds. Extensive marine reserves were set up in the 1990s. The Marine reserves and the limited development to date have positioned Belize to be a world leader around habitat quality and ecosystem health. These ecosystems will only increase in value as land degradation and climate change continue to impact habitats across the world. To hold onto to this leading edge, it is recommended that Belize utilizes three complementary approaches. First, all the existing protection areas and conservation zones, both marine and terrestrial, should be recognized as critical and prioritized over all else. Land development and mangrove removal are likely to impact the health of the conservation zones. For this reason, development must be fully assessed, and negative impacts need to be minimized.

¹ Gibson, J, M McField, W Heyman, S Wells, J Carter and G Sedberry. *Belize's Evolving System of Marine Reserves*, in *Marine Reserve A guide* Island Press, eds. Jack Sobel and Craig Dahlgren. Washington D.C. 2004.



White-lipped Peccaries. Source <https://news.mongabay.com/2023/02/deforestation-could-pose-disease-threat-to-amazons-white-lipped-peccaries/>

The reserves provide important no take zones. These zones support provide refugia for fish populations supporting the fisheries industr . Monitoring of marine reserves has illustrated significantly higher populations of lobster inside the reserves (Gibson et al., 2016¹). Marine reserves are also important for preserving biodiversity. They provide recreation destinations with associated fees and educate users and the public about important conservation measures. Hol Chan Marine Reserve was the first to be established. The success of this reserve led to a string of additional reserves—including Bacalar Chico National Park and Marine Reserve in the early 1990s —as well as a large portion of the northern shelf lagoon behind Ambergris Caye, known as the Corozal Bay Wildlife Sanctuary, founded in 1988.

Together, this national park and wildlife sanctuary represent some of the richest ecological habitats supporting diverse and threatened species, as well as culturally rich Maya areas and trade routes. Five native cat species (including pumas and jaguars) have been sited here, as well as White-lipped Peccaries, Manatees, crocodiles, loggerhead and green sea turtles and hawksbill turtles.

Both conservation areas are regionally significant as part of larger conservation systems including Belize's National Protected Areas System, which relates to the Santuario del Manati of Mexico, as part of a transboundary protected area. They represent a larger river-to-reef seascape connected to the Belize Barrier reef (longest in the western hemisphere at 322 km) and part of the large regional Mesoamerican Caribbean Reef System. The Ruta Maya is an important regional area culturally.

The relative obscurity of these sites, alongside conservation efforts, has paid off up to this point. Development pressures are imminent. It is essential to bring these sites forward into a contemporary recognition of their global, regional, and local value. We recommend that the BTB join forces with conservation and management teams to develop plans for careful use and experiences that generate resources supporting conservation, monitoring, and adaptation. The BTB should explore ways of working with and empowering groups responsible for managing sites and educating the public to support expanding these practices.

Second, new conservation and protection zones should be developed as they have been with the Mexico Rocks Marine Reserve and No-Take zone. These locally guided reserves are fundamental for the health and longevity of Ambergris Caye as a tourism destination. They should be fully supported by BTB. Terrestrial reserves such as the Cayo Francis Nature Reserve are also fundamental for the long-term viability of Ambergris Caye. This reserve should be combined with an overall strategy to establish urban green spaces, as well as bike trails and a connected nature experience for visitors to San Pedro. Third, there should be an investment in restoration and conservation projects to enhance the ecology and counteract the impact of development while providing additional tourism amenities.

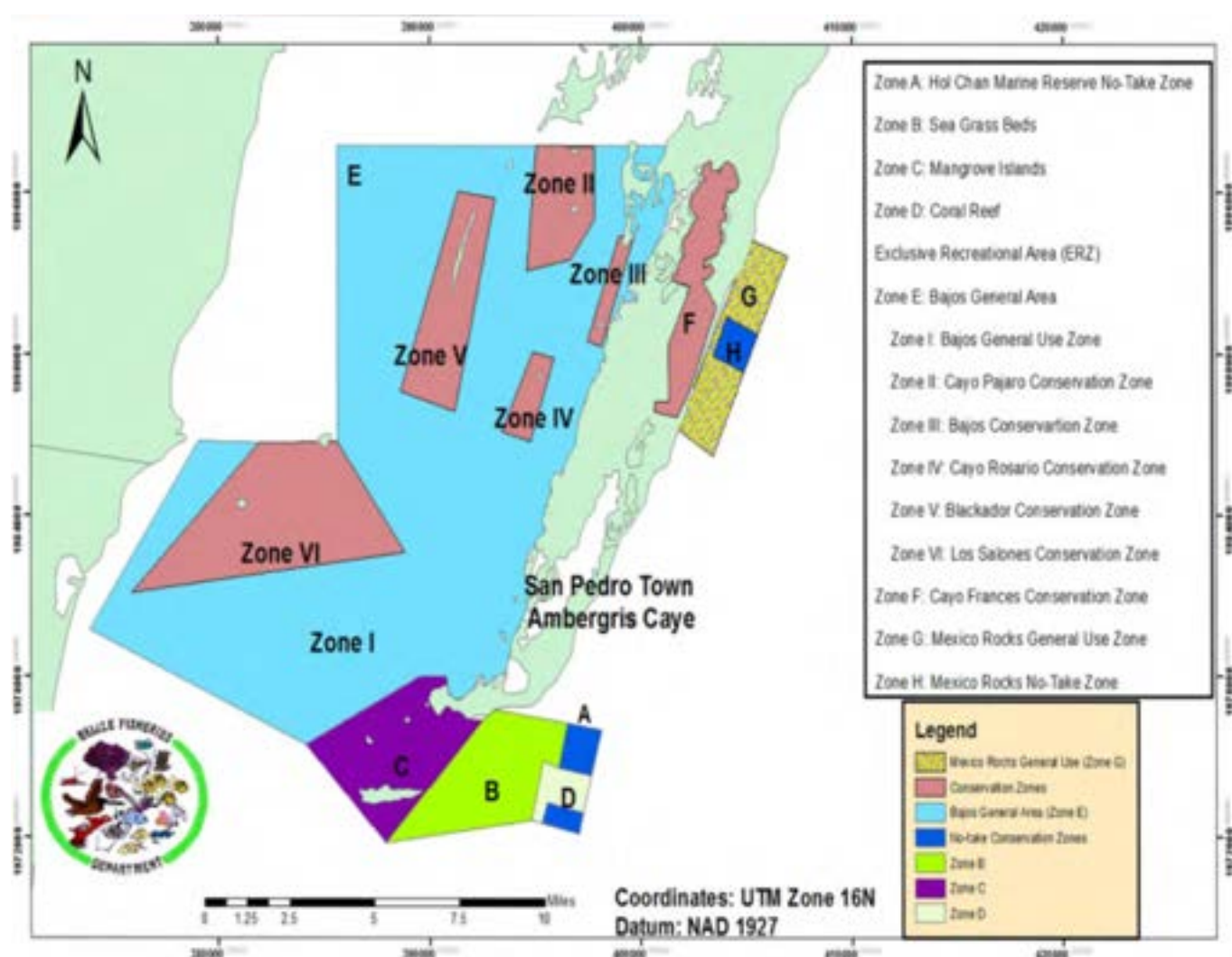
The area north of Secret Beach, as well as the area being developed northeast of Secret Beach, would benefit from defining green spaces, setting aside land for wastewater treatment and utilities, and defining areas for public buildings and schools. The area needs a growth boundary. It needs to build sanitation and other safety and growth amenities. We recommend that a master plan be developed that includes the Social Security Property and establishes a conservation-based and climate-adapted development strategy.

The lagoon treatment system is a successful, passive treatment approach. However, there are issues. The treatment capacity may not achieve standards. The sizing and amount of waste that can be treated needs to be evaluated. Expansion is necessary; however, the leachate treatment of lagoons is an issue. Sea level rise and storm events will impact the low-lying lagoon systems, requiring the raising of barriers as well as for pumps or other flood defences to be maintained overtime. For the southern lagoon, perhaps the town could negotiate with local resorts such as the Mahogany Bay Resort² to handback a portion of the development to be regenerated as a mangrove lagoon for tertiary treatment.

Belize's mangroves are an important asset providing multiple values for coastal Belize. A variety of birds live in the reef including resident waterbirds such as the Brown Pelicans, Magnificent Frigates, White Ibis, and various heron species. Mangroves provide important stopover resources for migrating waterbirds. Mangroves provide crucial nurseries for a wide variety of finfish, shellfish, crustaceans, and gastropod. They also trap sediments and uptake excess nutrients, thereby adjusting salinity and maintain water quality.

² Kramer, PA and Richards, PR Kramer with M. McField (ed). *Ecoregional Conservation Planning: Mesoamerican Caribbean Reef (MACR)* 2002.

Zoning Scheme for Conservation



Hol Chan Marine Reserves, Ambergris Caye, Belize. Source: <https://www.holchanmarinereserve.org/zones/>

AMBERGRIS CAYE SPATIAL PLAN

Belize Airport Authority owns Basil Jones (50 ac). Whether to develop an aerodrome here or not and when are being discussed. Relocating the airport creates negative ecological impacts and conservation losses. The economic and labor impacts need reviewing. Transparency is required. Preserve Bacalar Chico and Corozal Bay at all costs. CZMAI and other ministries should vet proposed plans to ensure conservation of critical ecosystems. Enforce conservation management plans and regulations. Develop eco-friendly recreation strategies, such as passive boating and water-side archaeological site visits. Identify, conserve, and restore mangrove forests under pressure from housing and resort development. Establish buffers. Mangrove preservation is critical for shoreline protection and needs enforcement.

Establish a minimum of 150' buffers as parkland and conserved ecosystems along Frances Caye Lagoon. Add signage at transition and entry points (e.g. conservation areas & off-limits areas). This area is rapidly developing and requires immediate investment in conservation, planning, & infrastructure. Work with the Development Council for N. Ambergris Caye.

Promote the Cayo Frances Conservation Area, including the Frances Caye Lagoon, as a tourist attraction. Establish wide perimeter parks with minimal trails.

Support and expand the proposed coastal and marine areas allocated for the retention of critical habitats and ecosystems.

This area is rapidly developing. Currently, raised gravel roads are built across cleared mangrove with raised parcels and a few houses. This ad hoc growth lacks planning, infrastructure investment, or conservation overlays. A school and police station have been located. Sanitation and sewers, potable water, utilities, parking, and amenities all require further planning.

Given the extensive flooding and other climate change risks, it is critically important to arrange property boundaries, rights of way for utilities and maintenance, sewer and drainage easements now. To make this development resilient, carefully supervise/oversee finished floor and raised road elevations and drainage.

Limit activities to general use zone to reduce impacts to sensitive seagrass habitat.

Sanitation facilities and safety amenities in Secret Beach are critically needed. The government needs to step in and develop the infrastructure. Developers should be held accountable for supporting sanitation costs. Taxes and fines should be set up to fund conservation, mangrove regeneration, and beautification for any new developments.

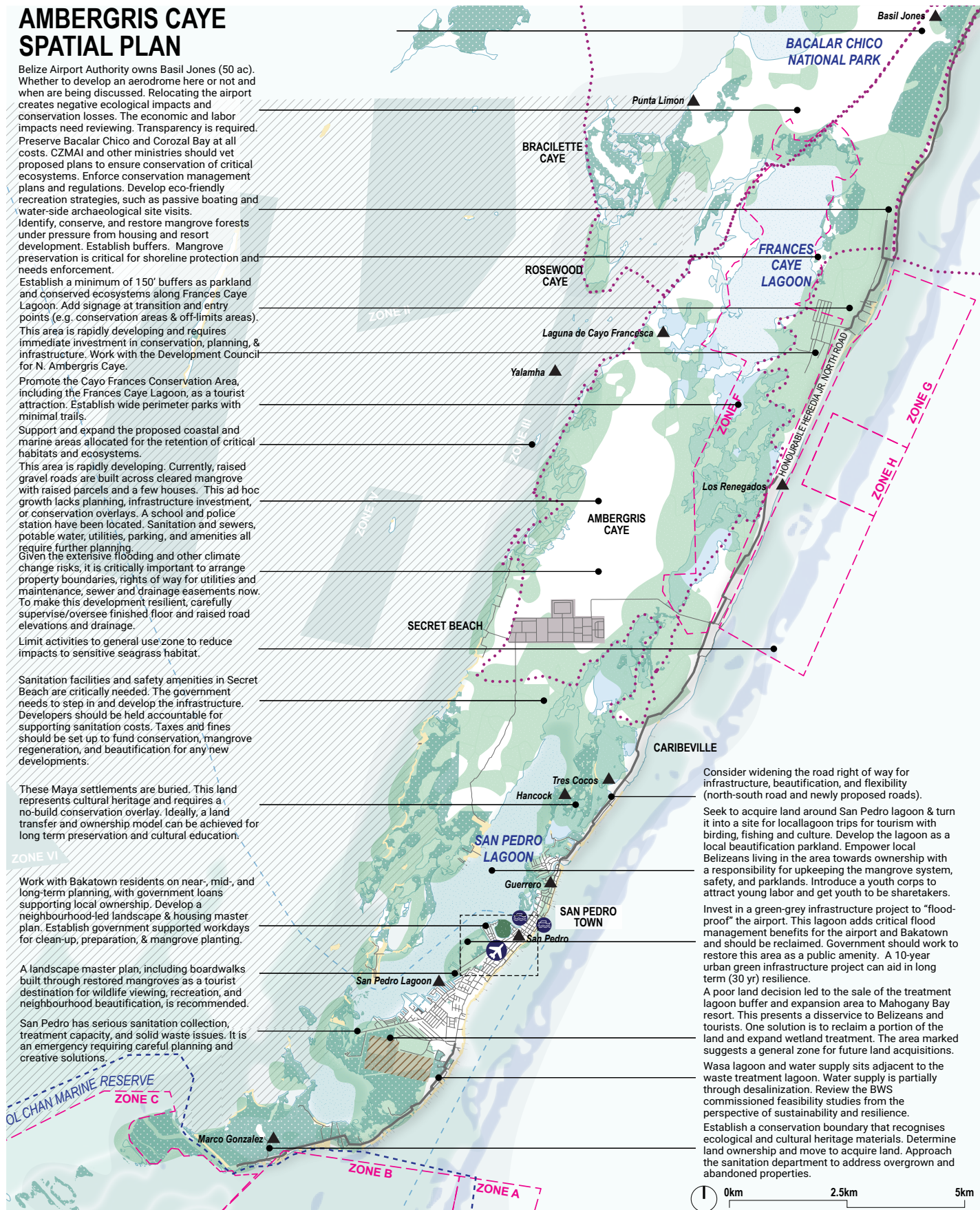
These Maya settlements are buried. This land represents cultural heritage and requires a no-build conservation overlay. Ideally, a land transfer and ownership model can be achieved for long term preservation and cultural education.

ZONE VI

Work with Bakatown residents on near-, mid-, and long-term planning, with government loans supporting local ownership. Develop a neighbourhood-led landscape & housing master plan. Establish government supported workdays for clean-up, preparation, & mangrove planting.

A landscape master plan, including boardwalks built through restored mangroves as a tourist destination for wildlife viewing, recreation, and neighbourhood beautification, is recommended.

San Pedro has serious sanitation collection, treatment capacity, and solid waste issues. It is an emergency requiring careful planning and creative solutions.



Legend

Ferry Terminal	Coast / Beach	Archaeological sites	Zone A: Hol chan Channel No-Take Zone	Zone E: Banjos General Area
Airport	Reef	Existing Protected Reserves	Zone B: Sea Grass Beds	Zone II: Cayo Pajaros Conservation Zone
Sea Routes	Lagoon	General Use Zones	Zone C: Mangrove Islands	Zone III: Bajos Conservation Zone
Main Roads	Sensitive Habitats:	Waste Transfer Expansion Area	Zone F: Cayo Frances Conservation Area	Zone IV: Cayo Rosario Conservation Zone
Local Roads	Wetland	Mangrove Restoration	Zone G: Mexico Rocks General Use	Zone V: Blackdore Caye Conservation Zone
Dock / Port	Mangroves	Area for Growth Potential	Zone H: Mexico Rocks No-Take Zone	Zone VI: Los Salones Conservation Zone
	Seagrass			

Scale: 1:70,000 @ A3

Note: Data and information taken from open street maps and Ambergris Caye Coastal Zone Management Guidelines

Site Plan by the UEDLAB, University of Melbourne 2023



02. BELIZE CITY

Belize City is a coastal settlement along the Caribbean with a rich history and cultural background. Today, over 60,000 inhabitants populate Belize City. It is no longer the capital, but it does serve as the finance centre and the principal port and industrial hub. The Phillip Goldson International Airport also serves as the hub for all international travelers, supporting flights from selected locations, including the United States, Mexico, El Salvador, and Canada. Belize City also caters to cruise ship tourists who are shuttled on transport boats from cruise ships that drop anchor outside the port.

Visitors rarely stay for long periods in Belize. From a tourism perspective, the town has a lot more to offer and several of the potential day trip destinations are underutilized. The limited tourism options within Belize City and crime rate contribute to tourists mostly passing through the city and on their way to other destinations. Hurricanes and flood risk pose one of the biggest challenges for Belize City. These include recent hurricanes and major events such as Hurricane Hattie, (October 1961), which heavily impacted the city.

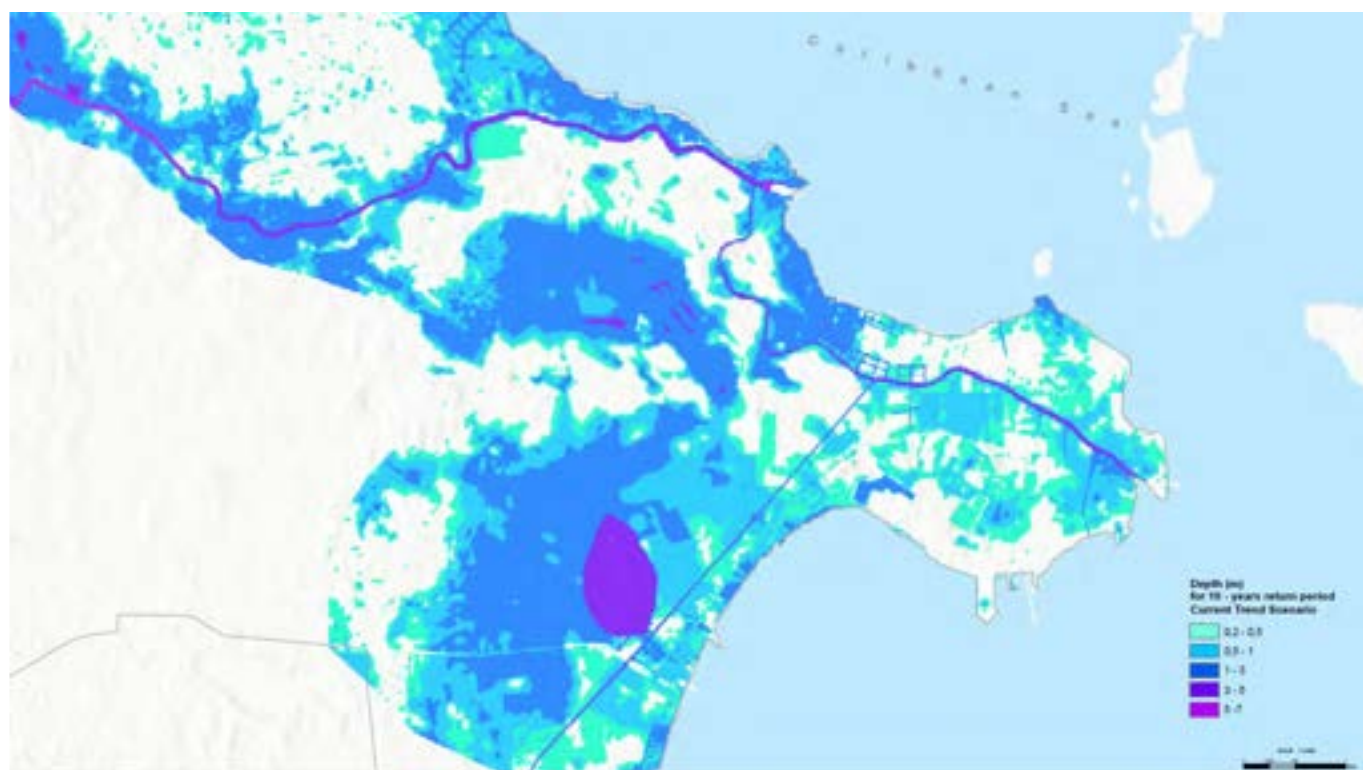


Belize City Streetscape, Belize. Photo by AJ Felson

Belize City sits below sea level and faces risk of pluvial (extreme rainfall event), fluvial (river), and tidal and coastal flooding. High groundwater causes localized flooding across many neighbourhoods. The Belize River, the largest and most historically important river, also flows near Belize City. It drains more than one-quarter of the country, flowing along the northern edge of the Maya Mountains. It was once a major trade corridor to Guatemala. This river flows into Haulover Creek and can create flood issues. In addition, the three canals running through the city's south side, including Burdon, East, and Collet canals, help to drain the city during storm events. The canals and the Haulover Creek can also overflow and flood

neighbourhoods, causing contamination. Sluice gates and pumps are being used to manage the canals. Active management prior to, during, and after flood events is essential.

Belize City has issues with its sewage and septic systems. This creates issues for managing the town waste over time. The council will need to improve efficiency of the existing sewage treatment facilities and assess the lagoon treatment sewage facilities for possible expansion and upgrades. Belize City, like other locations, should establish waste management for new development that will further sustain the existing system, especially those within the sewage treatment zone. Community septic and upgrades to the current



Hazard map of flooding risk in the area of Belize City, Belize. Source: IDB.

soakaways will be necessary. Establishing a public awareness program for homeowners and developers is essential to improve current practices.

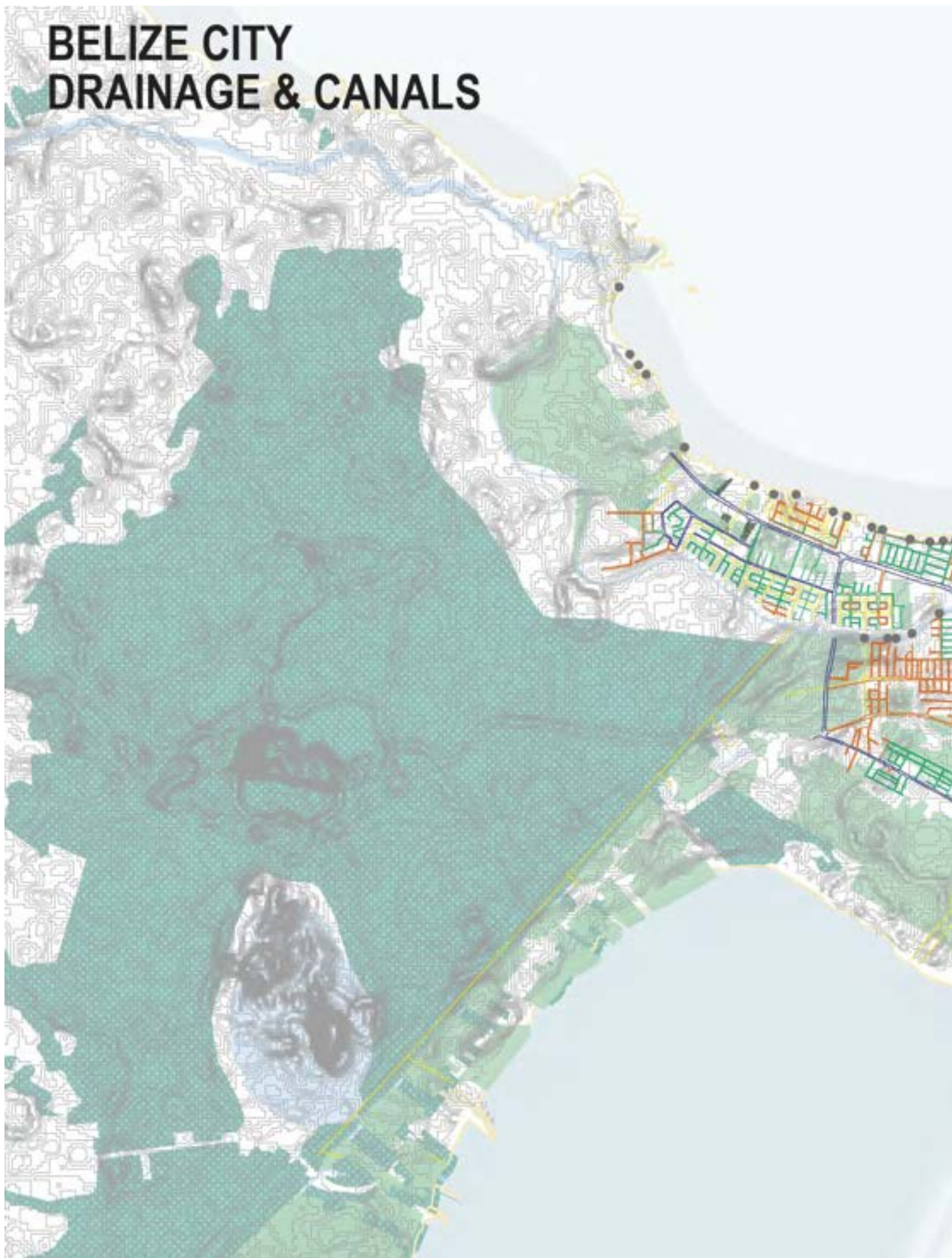
In addition to establishing a regional adaptation plan, Belize City should build up its local tourism opportunities and invest in targeted tourism destination sites that can accommodate cruise ship passengers and provide additional local activities for a large number of cruise ship visitors. It is recommended that all investments in road improvements, sanitation, and tourism should serve for day trips and for learning about the history, culture, music, and nature of Belize.

Alongside adaptation and resiliency planning that needs to occur at the neighbourhood scale, a combination of flood mitigation and management strategies is proposed. This includes selected raised roads, management of sewage, conservation of existing large scale wetland areas for managing water, and increased green infrastructure as urban parkland. The education and beautification of the large to small scale drainage network that exists across the city are also recommended. This is an unrecognised asset that requires upkeep and development controls. The canals and the distributed drainage network are a critical part of the water management. Given the critical function of the canals and their failure during large storms and flood events, recognizing how the system work , and incorporating ongoing upkeep and management is crucial.



View to Haulover Creek, Belize. Source: Randy Green.

BELIZE CITY DRAINAGE & CANALS





Urban drainage, Belize City.

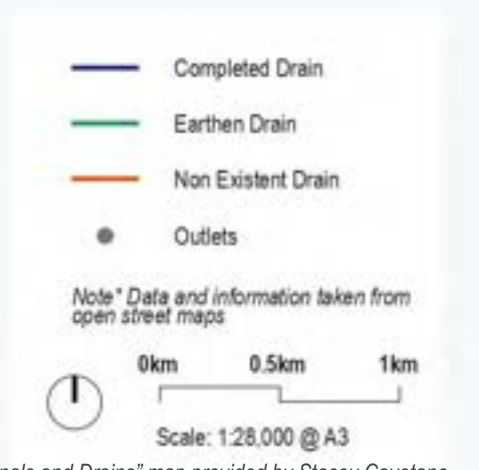


Watershed breakdown. Source: IADB.



Belize's drainage networks are one of its greatest assets in the face of climate risk. This drainage network allows the city to recover from flood events or heavy rainfall. The drainage system should be recognised for its value and integrated as part of Belize City's beautification program

Belize City's vulnerability to flooding is closely tied to its intricate network of rivers, creeks, lagoons, mangrove swamps, and wetlands, which serve as natural sponges, absorbing water and slowing its release. Faber's Lagoon, Burdon Canal Wildlife Sanctuary, Barton Bank area, Burrell Boom area, and Crooked Tree Wildlife Sanctuary, as well as nearby lagoons and adjacent wetlands along John Smith Road, are all critical upstream ecosystems that are indispensable for managing large water volumes and water quality. They play a vital role in Belize City's resilience and must be preserved.



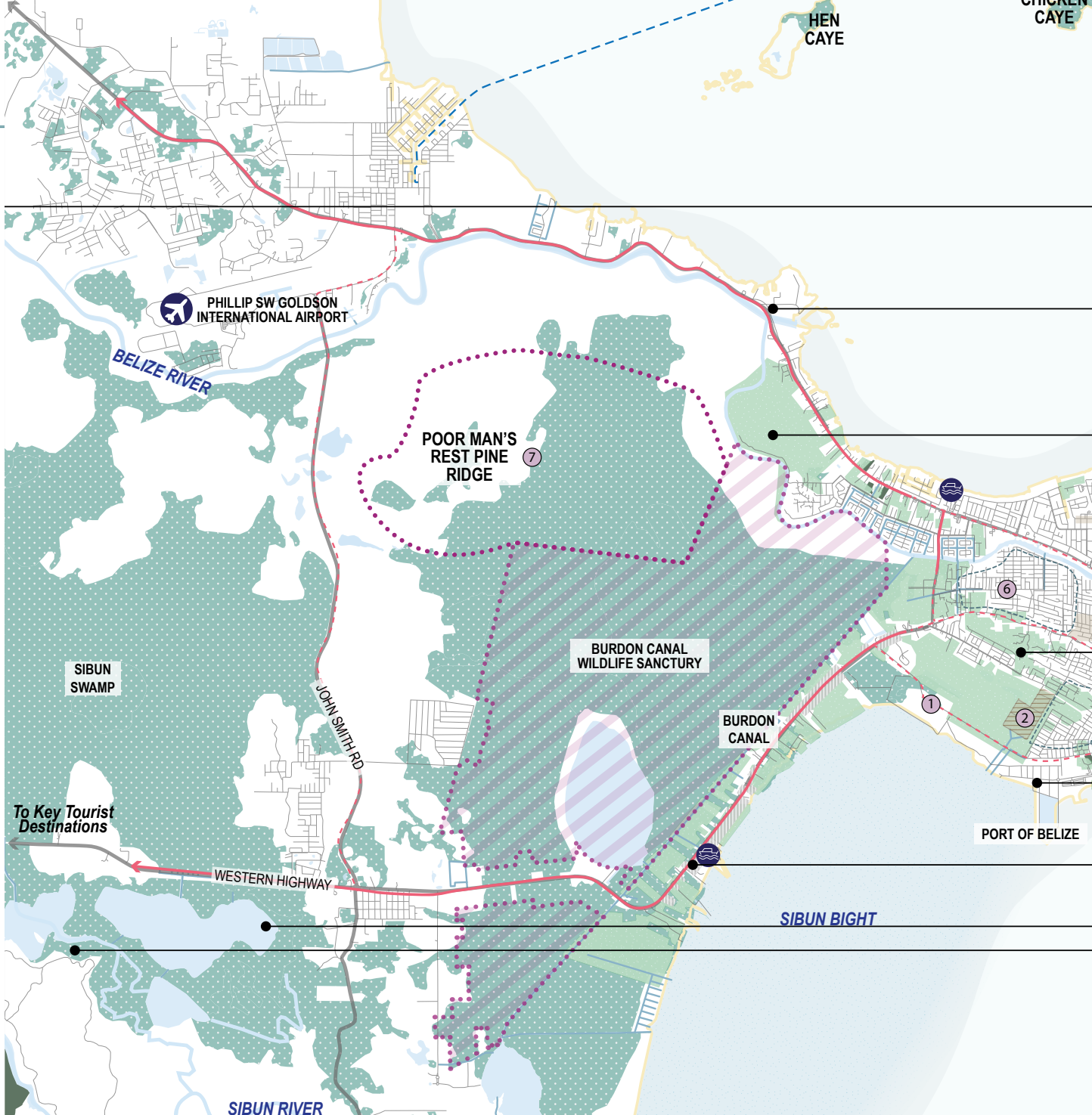
Site Plan by the UEDLAB, University of Melbourne 2023. Modified from the "Belize City Canals and Drains" map provided by Stacey Cayetano from the Belize City Council, on 29 July 2023.

BELIZE SPATIAL PLAN

To Key Tourist
Destinations

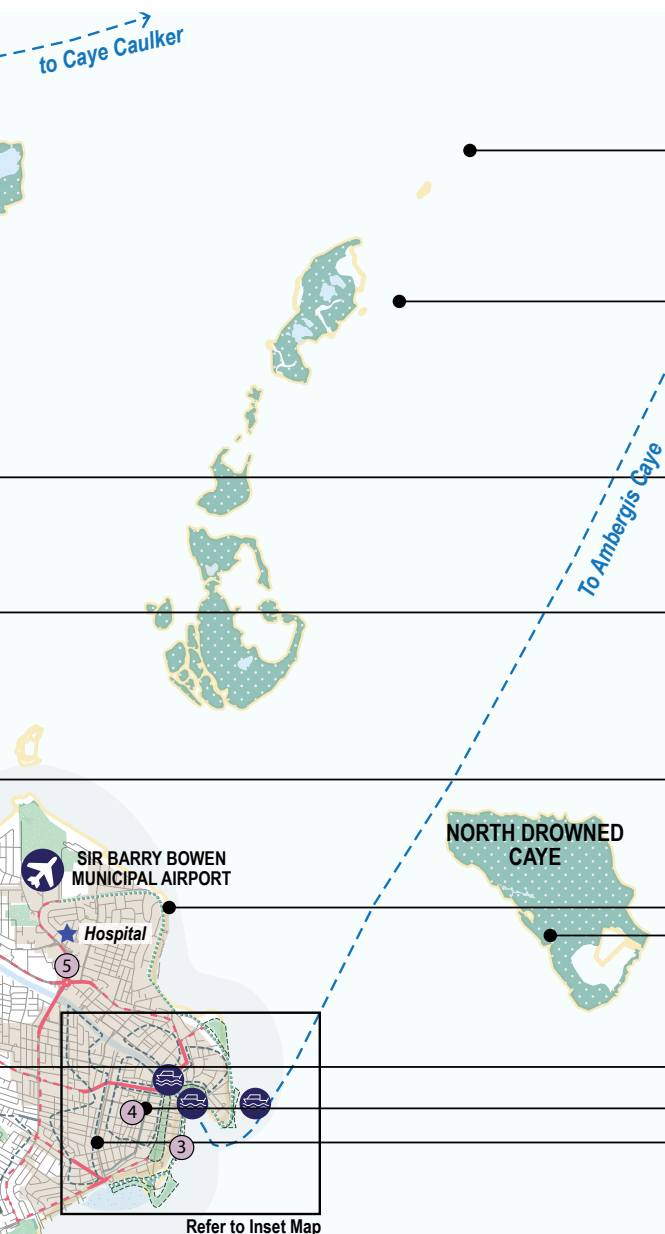
The Belize City regional map illustrates the connection that the city has to the cayes. The city sits at a land water interface. The fragile nature of the city, given its low-lying nature and frequent hurricane activities and flood risk, make it difficult to plan for. The Haulover Creek running through along with the canals, create additional risks. This map creates an initial proposal for a raised road and prioritisation of roadways map that can serve as a basis for further discussion to inform the development of climate resilience and adaptation for the city.

HEN
CAYE
CHICKEN
CAYE



Legend

- | | | | |
|-------------------------|----------------------------|----------------------------------|---|
| Ferry Terminal / Marina | Coast / Beach | Sewer Collection System | Forest |
| Airport | Bay | Sewage Treatment Plant | Resilience roads localised flood defence |
| Sea Routes | Sensitive Habitats: | Protected area | Potential resilience roads localised flood defence |
| Main Roads | Wetland | Proposed extended protected area | Adapt with Flooding - Wave Action |
| Local Roads | Mangroves | Mangrove Planting | Exploration of Mangrove and Flood Defence raised road development |
| Canal | | Adjacent raised parking | |



Belize City's coastal position at or near sea level means it has high ground-water and flooding issues. Its flood risks include fluvial (river) and pluvial (rain event) flash flooding, as well as coastal or ocean flooding. Its extensive septic and soak away systems risk sewage flooding. Diverse flood risks can combine. Flooding impacts multiple Belize City neighbourhoods (e.g., Belama/Bella Vista Areas, Coral Groves/West Landivar, and Port Loyola), including downtown. Belize City sits near the mouth of the Belize River.

Belize City faces considerable hurricane risks and storm risks. Since 1930, 16 hurricanes have hit Belize, and 17 systems made landfall in Belize as Tropical Storms in addition. The Belize Government was moved to Belmopan after Hurricane Hattie (1961) because of the devastation. Hurricane Hattie include a of storm tide of up to 14 feet (3.4 m). Recognizing these risks, future storms should be anticipated in all infrastructure works. This area is under review for development. Resiliency and drainage should drive the road layouts. Build finished floors and drainage networks. Retrofit portions of the developments at Belama and Bella Vista, which already illustrate the flood challenges.

The Northern Highway includes multiple low-lying flood-prone stretches. Segments run along the Belize River. The flood risks can make roads impassable and jeopardize evacuation. Thorough studies and further analysis and monitoring are required. As a rule of thumb, given the extensive risks, all new infrastructure and neighbourhood development should be built to survive medium- to long-term (2050-2080) sea level rise. Road elevations for new development should set the stage for future elevations.

Consider raising Chetumal Street to provide access to the south even during storm events. Develop resilient upgrades for Coral Groves and West Landivar.

Proposed raised road with mangrove and flood defence strategy along Princess Margaret Drive.

Reconsider causeway (see ports sheet). Building infrastructure in harm's way is not resilient.

Consider establishing a tourism destination with bus parking at the Ministry of the Prime Minister to access Burdon Canal.

SWALLOW CAYE

Protect Mangrove Lagoon waste treatment from residential encroachment. Work out an arrangement to shift housing into a more resilient configuration.

Develop beautification for southside and collet canals.

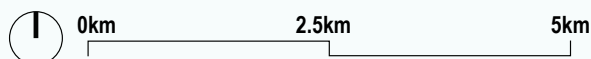
Address issues of encroachment equity and environmental justice in neighbourhoods like Port Loyola and Jane Usher.

Drainage networks in Belize City are essential for recovery after rain events. As critical infrastructure, they require investment, public appreciation, and upkeep. They are overwhelmed during hurricanes due to the low elevation of the city.

Develop a raised road and economic development zone along Western Highway, particularly where flooding is an ongoing issue.

Improve tourism along Burdon Canal and Western Highway.

All development upstream and in Belize City requires careful siting, low densities, well-constructed infrastructure and roads, and a robust water management and drainage system. Without this, most developments upstream and within Belize will increase flood risks and displace water into Belize.



Scale: 1:70,000 @ A3

Note* Data and information taken from open street maps

TYPSA - July 2010. Global study to propose specific interventions to reduce the Belizean road network vulnerability to flooding events, provided information on flood risks.

- ① Perimeter raised road and potential flood defence
- ② Explore lagoon expansion options
- ③ Mangrove and urban greening
- ④ Develop downtown holistic flood defence and resilience strategy
- ⑤ Raise intersection for access across Haulover Creek
- ⑥ Develop neighbourhood resilience plan
- ⑦ Extend wildlife sanctuary to include low lying area



03. PLACENCIA

Placencia Peninsula is a roughly 20 km narrow stretch of land bound by the Caribbean Sea to the east, as well as the brackish Placencia Lagoon. Originally inhabited by Mayas, the sandy beachfront along the peninsula's Caribbean coast has attracted tourism development since the early 1980s. Even after Hurricane Iris hit southern Belize in October 2001 with 145 mph winds and damaged over 90% of the existing buildings, development pressures increased with buyers seeking real estate opportunities and building residential, commercial, and tourism infrastructure, including hotels, vacation homes, and resorts. The constrained nature of Placencia, both in terms of its long and thin single road access and exposed beach-front, limits development. While much of the peninsula has developed and gentrified, the Garifuna village of Seine Bight offers a rich local culture. Populations in Placencia remain relatively small, with the three primary settlements: Maya Beach (2010 population of

229), Seine Bight (1,310) and Placencia (1,753).

Placencia sits across an interlocking network of rivers, creeks and lagoons; this geography supports diverse wildlife. Mangroves and littoral forests dominate the peninsula and mainland lagoon coasts. The lagoon is one of the largest of 30 lagoons found across Belize. Three watersheds from the mainland, including Santa Maria Creek, Mango Creek, and Big Creek, all flow into the lagoon. Each lagoon supports broadleaf evergreen forests dissecting larger pine savannas. The inland freshwater rivers, lakes, and wetlands support Morelet's crocodiles as well as many species of birds and other wildlife. The coastal lagoons and river mouths support American crocodiles. Manatees also inhabit the estuary. Upland aquaculture and agriculture as well as development pressures are increasingly impacting the health of the lagoon.



Placencia Point in Placencia. This is the site of the Lobster fest. It was sold by the GOB without consent of the Placencia Village Council. The village is seeking to re-acquire 0.4 acres. Photo by AJ Felson

Belize's marine and terrestrial reserves contain highly intact and complex ecosystems. Alongside the rich and diverse cultures, Belize is an amazing amalgamation of nature and cultural history. The tourism industry should continue to support conservation, management, and upgrading of these ecological and cultural environments to ensure Placencia's long-term viability.

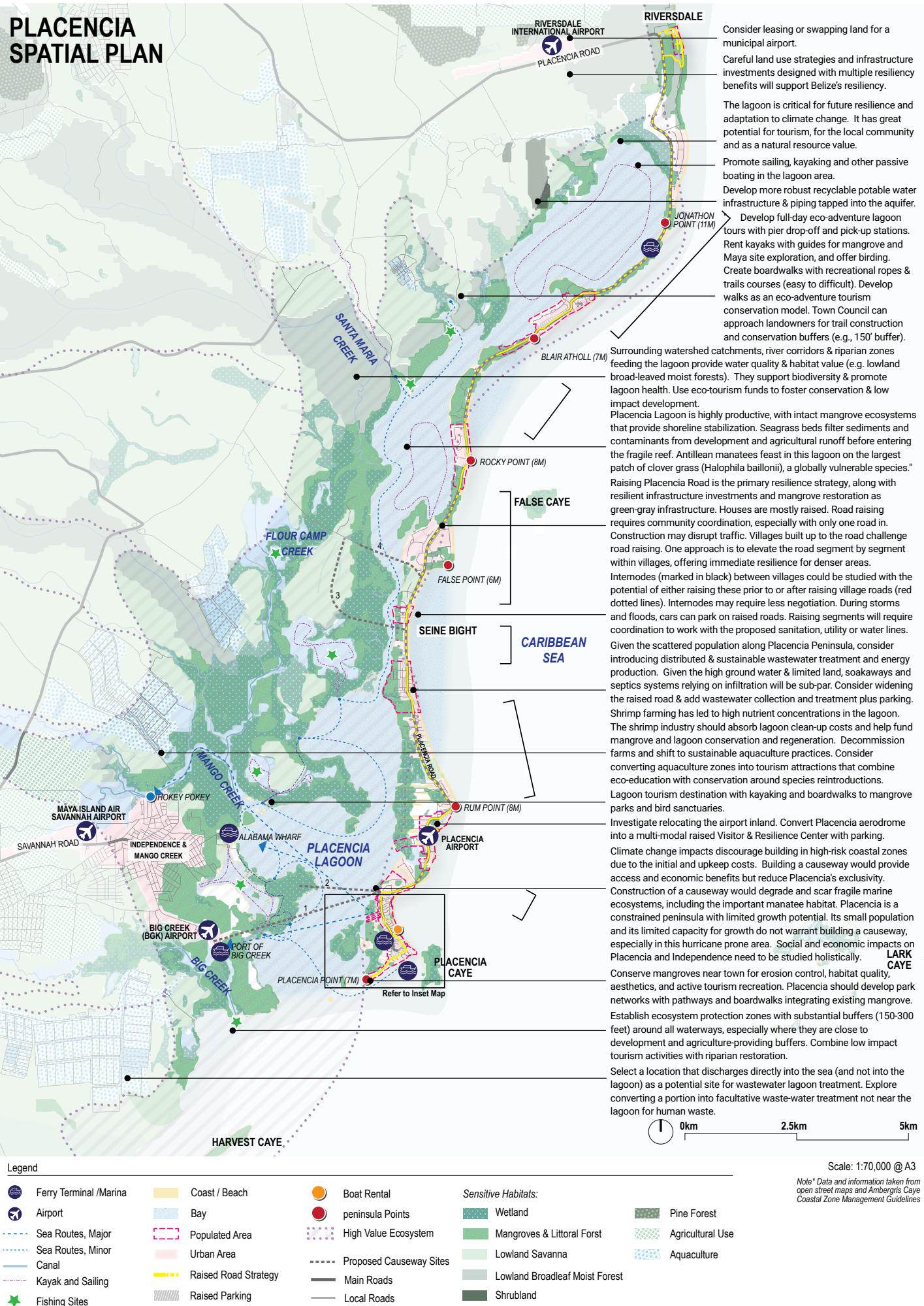
One critical issue with Placencia is the wastewater treatment. Septic tanks and soak-away pits are common. No centralized wastewater system exists. An initiative at BWS is underway to locate and construct new wastewater disposal methods including sewage collection and treatment. Current practices are inadequate. A field survey in Placencia by the BWS (2013) revealed that 35% of households discharge wastewater directly into the ground, beach, or lagoon, and that 10% of businesses and 5% of hotels discharge untreated sewage. Leaking septic systems due to poor construction were highlighted.⁴ Placencia peninsula's sandy soils are porous and offer minimal wastewater filtration put in directly or seeping out of septic tanks and latrines. Additionally, high tides and heavy rains will carry raw effluent from soakaways into adjacent low-lying residential and mangrove areas. Residents are at risk from direct exposure to faecal matter due to these inadequate sanitation systems. These issues are a high priority and require strategic investments that are scaled to the issues before the contaminants accumulate and create serious public health risks to the peninsula residents. Otherwise, these issues could continue to have negative effects on tourism.

Placencia Peninsula 2011 Wastewater Generation



⁴ Detail Design of Wastewater and Treatment System in Placencia: Project Inception Report 2013. AECOM.

Proposal for Water Quality Baseline & Nutrient Fate Study for the Placencia Sewerage Project Belize Water Systems Ltd (BWSL), date 2013



Consider leasing or swapping land for a municipal airport.

Careful land use strategies and infrastructure investments designed with multiple resiliency benefits will support Belize's resiliency.

The lagoon is critical for future resilience and adaptation to climate change. It has great potential for tourism, for the local community and as a natural resource value.

Promote sailing, kayaking and other passive boating in the lagoon area.

Develop more robust recyclable potable water infrastructure & piping tapped into the aquifer.

Develop full-day eco-adventure lagoon tours with pier drop-off and pick-up stations. Rent kayaks with guides for mangrove and Maya site exploration, and offer birding. Create boardwalks with recreational ropes & trails courses (easy to difficult). Develop walks as an eco-adventure tourism conservation model. Town Council can approach landowners for trail construction and conservation buffers (e.g., 150' buffer).

Surrounding watershed catchments, river corridors & riparian zones feeding the lagoon provide water quality & habitat value (e.g. lowland broad-leaved moist forests). They support biodiversity & promote lagoon health. Use eco-tourism funds to foster conservation & low impact development.

Placencia Lagoon is highly productive, with intact mangrove ecosystems that provide shoreline stabilization. Seagrass beds filter sediments and contaminants from development and agricultural runoff before entering the fragile reef. Antillean manatees feast in this lagoon on the largest patch of clover grass (*Halophila baillonii*), a globally vulnerable species."

Raising Placencia Road is the primary resilience strategy, along with resilient infrastructure investments and mangrove restoration as green-gray infrastructure. Houses are mostly raised. Road raising requires community coordination, especially with only one road in. Construction may disrupt traffic. Villages built up to the road challenge road raising. One approach is to elevate the road segment by segment within villages, offering immediate resilience for denser areas.

Internodes (marked in black) between villages could be studied with the potential of either raising these prior to or after raising village roads (red dotted lines). Internodes may require less negotiation. During storms and floods, cars can park on raised roads. Raising segments will require coordination to work with the proposed sanitation, utility or water lines.

Given the scattered population along Placencia Peninsula, consider introducing distributed & sustainable wastewater treatment and energy production. Given the high ground water & limited land, soakaways and septic systems relying on infiltration will be sub-par. Consider widening the raised road & add wastewater collection and treatment plus parking. Shrimp farming has led to high nutrient concentrations in the lagoon. The shrimp industry should absorb lagoon clean-up costs and help fund mangrove and lagoon conservation and regeneration. Decommission farms and shift to sustainable aquaculture practices. Consider converting aquaculture zones into tourism attractions that combine eco-education with conservation around species reintroductions.

Lagoon tourism destination with kayaking and boardwalks to mangrove parks and bird sanctuaries.

Investigate relocating the airport inland. Convert Placencia aerodrome into a multi-modal raised Visitor & Resilience Center with parking.

Climate change impacts discourage building in high-risk coastal zones due to the initial and upkeep costs. Building a causeway would provide access and economic benefits but reduce Placencia's exclusivity. Construction of a causeway would degrade and scar fragile marine ecosystems, including the important manatee habitat. Placencia is a constrained peninsula with limited growth potential. Its small population and its limited capacity for growth do not warrant building a causeway, especially in this hurricane prone area. Social and economic impacts on Placencia and Independence need to be studied holistically.

Conserve mangroves near town for erosion control, habitat quality, aesthetics, and active tourism recreation. Placencia should develop park networks with pathways and boardwalks integrating existing mangrove. Establish ecosystem protection zones with substantial buffers (150-300 feet) around all waterways, especially where they are close to development and agriculture-providing buffers. Combine low impact tourism activities with riparian restoration.

Select a location that discharges directly into the sea (and not into the lagoon) as a potential site for wastewater lagoon treatment. Explore converting a portion into facultative waste-water treatment not near the lagoon for human waste.

SITE SCALE ADAPTATION PLANS

The BTB identified three sites across regions. Adaptation plans specific to each location and context were generated. The plans are intended as contributions to the 2030 Tourism Master plan. They do provide a comprehensive and multifaceted tourism investment and conservation strategy for the selected issue and site location. The proposals seek to promote cultural awareness, education, and local value.

They present green-grey infrastructure and smart “no regrets” resilience actions. The approaches build on environmental planning and urban design. Strategies focus on adaptation and resilience that will benefit the community and tourism alongside conservation. These plans are intended to support healthy debate and discussion around investment, conservation, and urban greening options that will inform the 2030 Master plan. The plans seek to raise critical issues to be considered, discussed, and further investigated. The drawings are preliminary and require further engineering and design studies.

The three locations studied have distinct and overlapping challenges and opportunities specific to the geography, settlement patterns and infrastructure investments. Belize is the densest, followed by San Pedro and Placencia. All three locations face flood risk and all require sanitation and waste management improvements. As tourism destinations, San Pedro and Placencia share similarities but also have distinguishing characteristics. Belize City, on the other hand, is distinct.

Below the three site locations are outlined and described with annotated maps. The Adaptation Plan’s authors are interested in discussing these maps further, and believe they raise pertinent issues that need careful planning as well as landscape architecture design.



A. SAN PEDRO ON AMBERGRIS CAYE

The plan for San Pedro focuses on a traffic congestion area right at the heart of the town. The roadway where Coconut Drive, Almond Street, and Pescador Street all converge is a serious traffic challenge. Because the airport is located here, options are limited.

A long-term plan that has been suggested includes moving the airport and possibly the adjacent San Pedro Roman Catholic School to connect roadways and divert some traffic from Coconut Drive to Front Street. The airport relocation would create important development opportunities in this site. However, a new airport would require careful analysis and studies. Reinvesting in a new location, given the low-lying nature of Ambergris Caye, will be costly and may have a limited time horizon.

Recommendations stem from the recognition that San Pedro sits across a series of delicate ecosystems that are fundamental to the tourism industry.

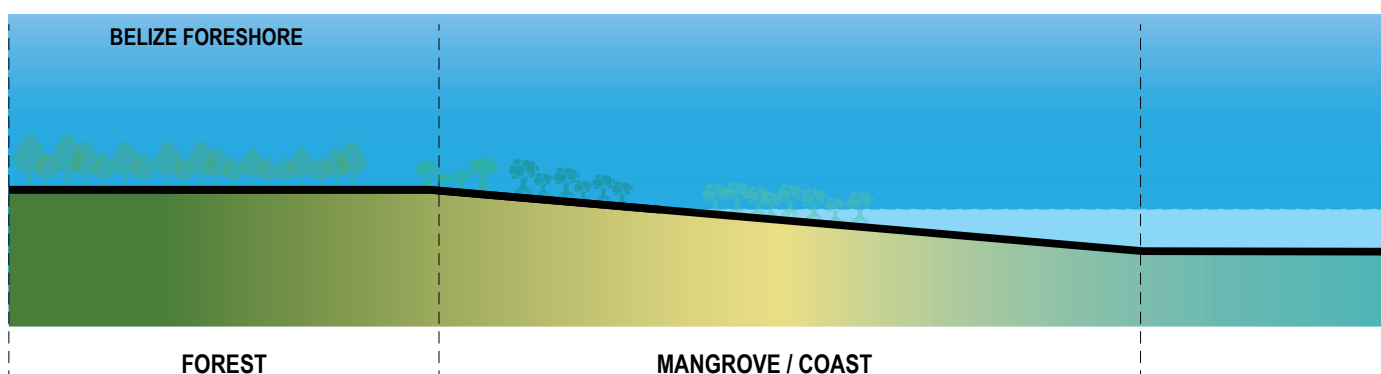
These ecosystems are driving development investments and need to be recognized as a fundamental part of the tourism attraction. This includes the beaches, reefs, lagoons, mangroves, seagrass beds, and wetlands. Developing into these ecosystems, or into the watersheds that flow into these ecosystems will degrade them over time.

The health and long-term viability of San Pedro as a tourism destination is reliant on smart growth and controlled development. Better regulations and oversight to limit mangrove removal and to rebuild and maintain ecosystems is an essential resilience approach.

It is believed that for the next 15 years at a minimum, that the airport should remain in its locations and that flood defences should be constructed for the airport as part of a larger traffic management and downtown urban greening and revitalization project.

The proposal is not only to address the traffic intersection as a site-specific issue, but to zoom out and study the context and to consider what flood defences will eventually be needed and how these defences can contribute to resilience and local economic, cultural, and ecological improvements for the town of San Pedro.

Towards this end, the authors' big move is a flood defence designed as a green-gray infrastructure along the northern side of the airport. This airport "flood proofing" project builds on the investments into the buildings at the airport. It would eventually require developing defences to the south and connecting up with the North. The idea would be to build a raised road that diverts traffic from the intersection.



There are multiple options for where the road would be located. This depends on many local considerations and requires further discussion. Having multiple options allows everyone a chance to weigh in and present on pros and cons. The raised road would be designed with robust green infrastructure on the interior to address large rain events and catching water behind the wall. The design for the road is proposed to include a multi-tiered system for two or three species of mangrove to be grown as part of the green-grey infrastructure. This would also be designed with a boardwalk and a regional bike trail for recreationists to bypass the town and get around the airport.

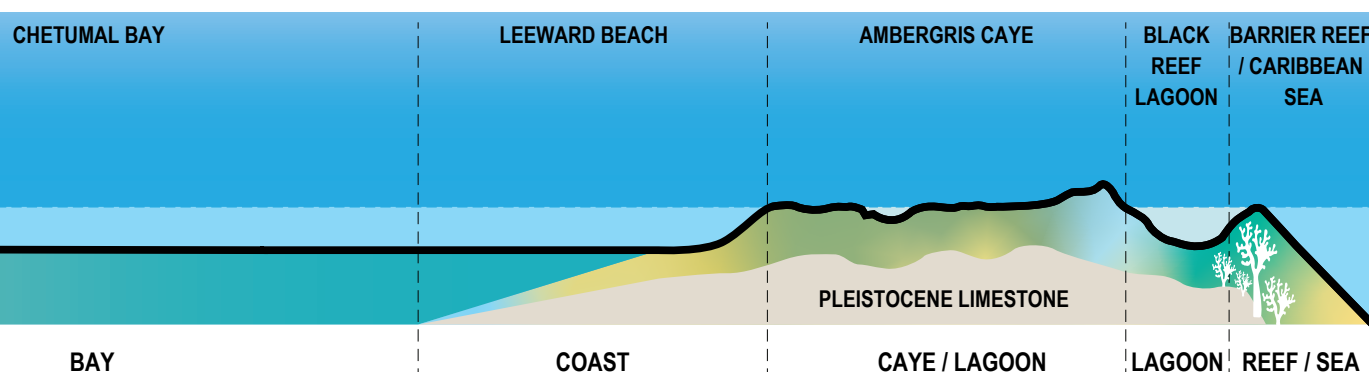
The design would combine:

- (1) mangrove to upland wetlands restoration;
- (2) a meandering recreational boardwalk with bird blinds;
- (3) a bike trail connecting the downtown to the south;
- (4) and a raised road as flood defence around this side of the airport with green infrastructure inside the raised road for drainage.

It could also potentially serve as a utility corridor and for waste diversion. It could be a service road as well, possibly at specific times of the day.

Investment and urban greening along the lagoons adjacent to the airport are also encouraged. The Adaptation Plan envisions a connected series of recreational attractions and green spaces that are designed as flood defences but that could work as nurseries for fish species and support education around ecological communities in San Pedro.

San Pedro is connected to multiple critical habitats. It is part of the Belizean coastline, connected to coral reef and the peninsula is surrounded by an array of Cayes. Mangrove habitats and interior lagoons and back lagoon ecosystems provide valuable habitats for a variety of species. These ecosystems at the coastline is a critical ecological zone where urban pressures is compounded. The mangrove condition represents a significant ecological zone that is important to counteract erosion and adapt to sea level rise. Moving forward, the removal of additional mangroves should be avoided wherever possible. The resilience of San Pedro is diminished with mangrove and habitat removal through development. There should continue to be the designation of mangrove and lagoon rehabilitation areas to address the progressive and damaging erosion of beaches and primary dune systems.



Convert Ambergris Street into a mainly pedestrian greenlane that connects the lagoon to the beach.

Focus the beautification strategy for San Pedro's downtown on vegetation & green lanes, controlled parking, building guidelines, and historic preservation.

Establish long views of the lagoon.

Revitalize Central Park and Barrier Reef Drive as a streetscape beautification. Limit vehicles. Explore resiliencies.

Develop studies of seasonal, weekday-weekend and day-night traffic. Establish carrying capacities. Develop traffic restrictions.

On primary routes, include footpaths, lighting, outdoor dining & improved frontage controls. Divert traffic behind the airport to minimize congestion.

Build public greenways access to the regenerated bay.

Divert traffic behind airport to minimise congestion.

Construct an alternative road as a traffic bypass. Study options. Raise the road as an airport flood defence.

Establish a bike lane and pedestrian boardwalk network as a tourist amenity and an alternate route to downtown. Support recent Tropic Air and Maya Air headquarters investments with flood defence investments.

Develop a project for green-grey infrastructure and plans for regenerating mangroves and building flood defences.

Review environmental permits that allowed this intact lagoon to be filled. Seek to reclaim land for ecological enhancement area with bike lane through mangroves.

Raise road as flood defence for airport.

Maintain constructed wetlands inside the raised road for airport drainage and flood defence.

REHABILITATE BAY AS A HABITAT
AND TOURISM DESTINATION NE


SAN PEDRO SPATIAL PLAN


Tourism & Adaption Concept Plan


Legend

Pedestrian Priority Routes 


Secondary Pedestrian Connections 


Establish continuous walkway at water edge, clear of roads 


Strengthen & unify jetty condition & limit number of future private jetties extending into the sea 

Pedestrian boulevards 

Upgrade to 'shared way' with greening and pedestrian focused 

Improve & upgrade primary north south routes 

Propose raised junctions at main intersections 

Improvement of existing resort precinct 

Traffic Congestion Points 


Traffic Diversion Strategy: Main Traffic Route 


Traffic Diversion Strategy: Raised Flood Road 

Traffic Bypass Strategy: Main Traffic Routes 

Traffic Bypass Strategy: Local Traffic Road 


Traffic Bypass Strategy: Alternative Route 

Facilitate high quality buildings, amenity & public spaces 

Green Infrastructure 

Open Space / Parkland 


Flood Defence Strategy 


Views 

Sea Routes 


Boat Docks 

Wetlands 

Strengthen & Protect existing Mangrove patches 

Encourage mangrove clusters at jetties 

Beach rehabilitation with groupings of mangroves & WSUD 

Sea Grass 

Reef 

Explore options for future relocation of the school to open traffic diversion. Design this area as a cultural institutional zone tied to the library. Enhance pedestrian connection in the near term.

Seek to re-institute a continuous waterfront boardwalk and beach with designated access points and mangrove regeneration plus green-grey infrastructure for managing erosion and supporting habitat and canopy for shade.

Explore flood defence strategies to holistically protect the airport and ensure its functioning even during storms.

Enact a moratorium on new docks & piers. Consolidate a selected number of piers as shared public piers. Seek to link the preserved piers with the ferry service. Enforce a no-rebuild policy for all non-public piers: if damaged, they should be removed and not rebuilt.

Allow only local traffic to minimize congestion near the school.

Scale 5000 @A3
Date 18.07.23
Revision: D





B. BELIZE CITY

Belize City is the primary point of entry into the country. Tourists enter Belize and often travel to other destinations. Belize City faces many challenges. Belize is built on mangroves. It is a geographically low-lying and faces flood risk, as well as having wastewater and other infrastructure challenges. Belize has management issues around crime and upkeep and maintenance. One of the challenges is that Haulover Creek flows through the city creating additional flood risks. The Canals also have a limited flow rates and often silt up decreasing their efficiency. Perimeter flood defences would be undermined by these interior reaching canals. To increase the efficacy of the system and decrease overflow, some work has been done to dredge the Collet and East Canals and add sluice gates and a pump at the canal outlets to manage silt build-up and flow. Belize City includes a drainage network that helps to alleviate flooding. This drainage network is underappreciated and can be blocked or go unmanaged. Given the high ground water and extensive flood risk, a near-mid- and long term adaptation plan and flood defence strategy is essential for Belize City. In our regional plan we highlighted specific roadways and intersections that we recommend raising. This is from a preliminary review of the predicted flood risk (based on IDB's flood maps).

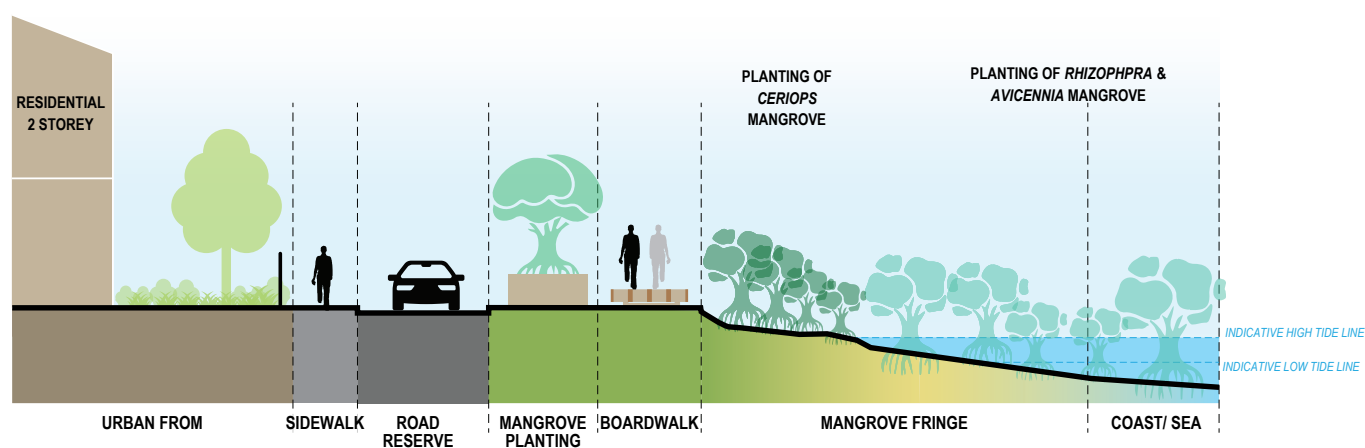
The plan for Belize City focuses on establishing a tourism loop connecting the Fort George area through

the downtown and along the waterfront out to the Governor's House and Birds Isle. Ways of activating land along the Haulover Creek and connecting the existing historic homes and important tourism destination and cultural institutions are being sought. Belize City's riverfront and waterfront are vulnerable to sea level rise and flooding, and this creates serious concerns in terms of new investments in parts of Belize City. The construction of a mangrove green-grey infrastructure flood defence along the Southern Foreshore is proposed. This road could become more of a tourist destination and greenway connector to Birds Isle. The BTB can extend its road to this corridor as a green lane with tight planting along the edge of the street.

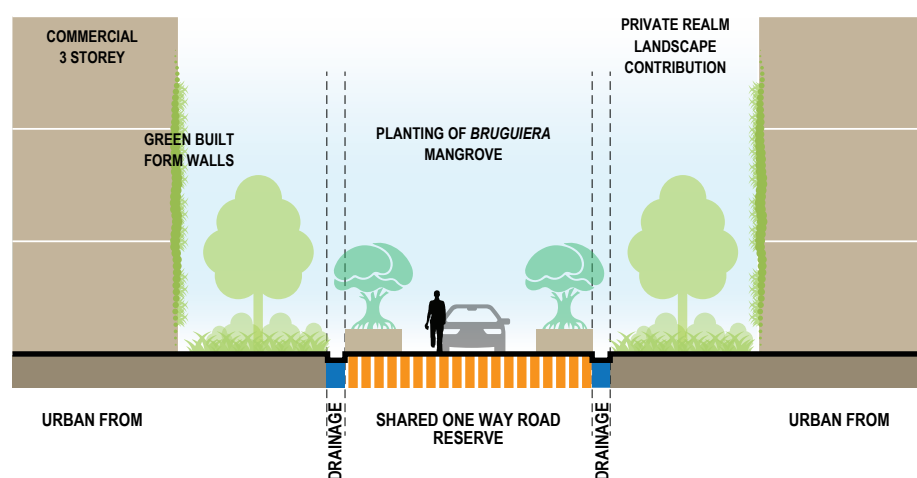
It is proposed that the BTB continue to support historic housing renewal and redevelopment and create signs that provide a history of Belize along the existing homes and cultural institutions. Careful revitalization of the parks across this loop will help to make them destinations and part of a larger circuit of experiences. It is also recommended that BTB incentives are established to support cultural heritage sites and stores focusing on art, music, dance and similar activities. The Image Factory is an example. All of this investment should be aligned with climate adaptation and resilience goals. Investments in housing should contribute to creating urban greening to manage flooding and rainfall and raised homes and egress for neighbourhood resiliency. This requires careful planning and engineering.

Careful management of the strains on the lagoon treatment as well as the use of innovative waste water is essential. Raised finished floors for future flooding are essential. The infrastructure supporting tourism needs improvement, and the wayfinding, beautification, and upkeep of the tourism areas of the city need work.

Section 1: Indicative Southern Foreshore Upgrade



Section 2: Indicative Belize City Historical Area Streetscape Upgrade





1 Birds-Isle



3 St. John's Cathedral



5 Belize Tourism Board



7 Department of Human Services



9 High Court of Belize



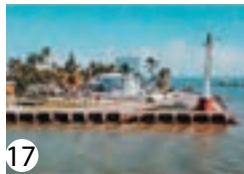
11 Swing Bridge in 1947



13 Early Pedestrian Bridge at Hydes Ln



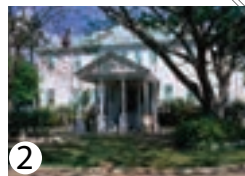
15 Belize Post Office



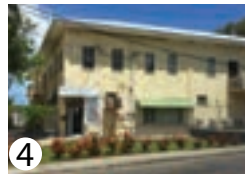
17 Lighthouse Point



19 Belize Memorial Park



2 Government House/House of Culture



4 National Health Services



6 Salvation Army Headquarters



8 Bliss Institute



10 Original Belize Market (removed)



12 Fish Market on the Canal



14 Holy Redeemer Cathedral



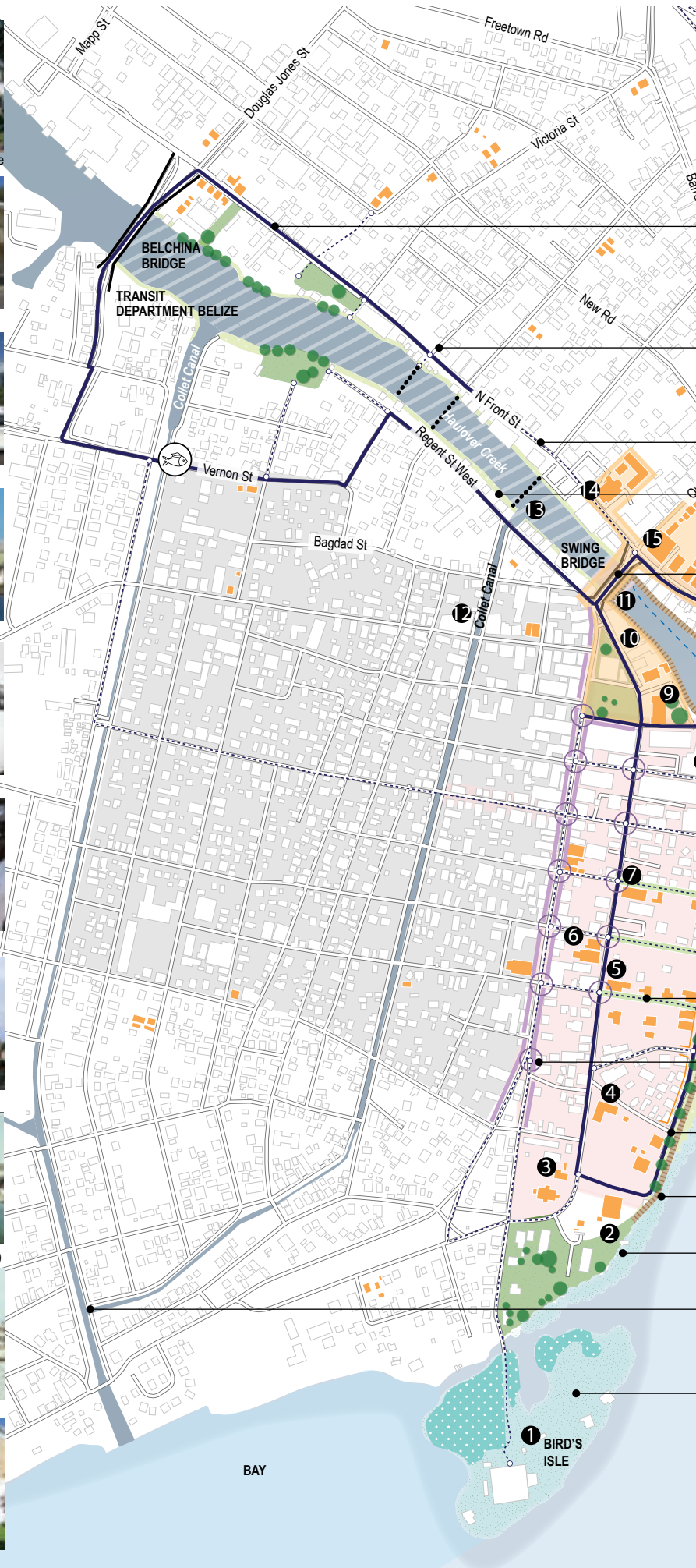
16 River Regatta in the Harbor (historic)



18 Radisson Fort George Hotel



20 Museum of Belize

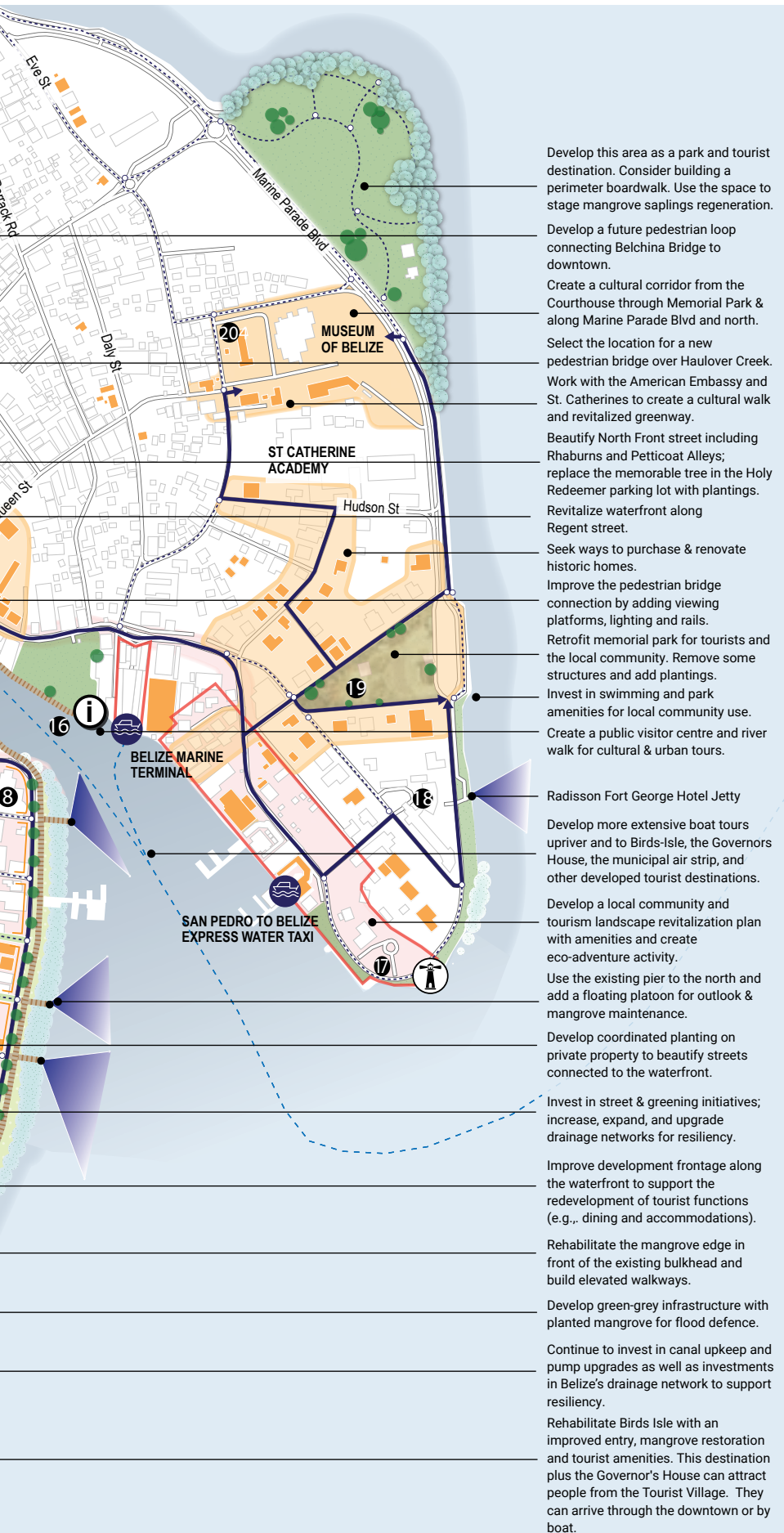


BELIZE SPATIAL PLAN

Tourism & Adaption Concepts

Legend

- Main Pedestrian Connections
- Secondary Pedestrian Connections
- Support Junction Treatments for improved pedestrian amenity & comfort
- Establish continuous walkway at waters edge, clear of roads
- Pedestrian Core Area
- Museum & Heritage Precinct with waterfront address
- Heritage Buildings
- Primary Commercial & Service Spine along Main Street
- Improve Development facing waterfront
- Open Space / Parkland
- Landscape Corridors
- Pedestrian boulevards
- Potential Information Centre
- Lighthouse
- Fish Market
- Boat Docks
- Sea Routes
- Potential Pedestrian Bridges
- Views
- Strengthen & Protect existing Mangrove patches
- Mangrove Nursery
- Wetlands
- Support River Cleaning & Recreation Use
- Neighbourhood Retrofitted With Flood Management



2023





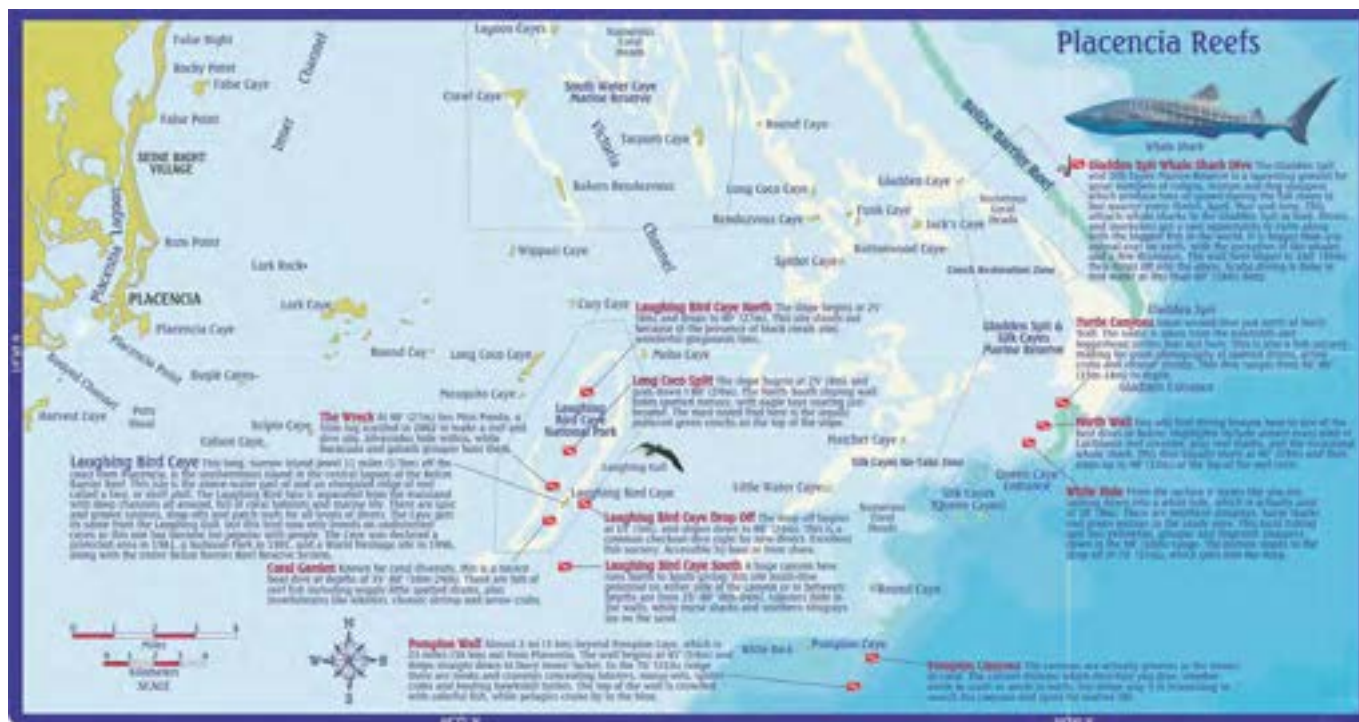
C. PLACENCIA

The plan for Placencia Village focuses on a resilient raised road and parking approach in the long term combined with a resiliency center, as well as urban greening and public space network design that builds on existing amenities. Building on the overall approach of raising portions of Placencia Road to prepare the small villages for future flooding, the development of a raised road strategy is proposed, that bundles access and parking a waste-water collection system and utilities. The approach would be designed as part of a larger urban greening and public space making strategy that includes trail networks and a bike trail providing access to key locations. This plan for Placencia includes renegotiating some private property acquisitions and purchasing land in strategic locations to ensure the high quality of public green space. It seeks to create greenway connections from the Caribbean beach side to the lagoon side. This urban greening will help to create a park network for Placencia and help with flood mitigation and habitat enhancement. It will improve the tourism product in Placencia. It is proposed that the central privately owned piece of land is negotiated for the long-term resiliency of Placencia. This land can be raised now or in the future and can function as the basis for a future resilience centre.

As part of the connectivity, connections across properties along the lagoon edge and beach edge can also be created. These zones include an access right of way. Certain connection points can be purposefully selected and drawn across to enhance people abilities to access the water on the beach and lagoon sides. It is recommended that the town work to regain access to the land adjacent to the Pier where lobster festivals have been held. This area is a fundamental part of the town's green space and should include shared access for the community. Side alley ways connecting to the Placencia Sidewalk can also be introduced. These alleyways emphasize pedestrian movement and circulation. They provide ways of expanding the small-scale commercial shops and providing connections to the beach.



Placencia Sidewalk, Placencia Belize. Photo by AJ Felson



Placencia Dive map. Source: https://chabilmavillas.com/maps-chabil-mars-premier-placencia-location-placencia-village-aerial-scuba-diving-sites-map/nggallery/image/placencia_reefs_dive_mapsm

To Independence

Raise the road for flood defence and car access. Explore parking along the raised road or in dedicated raised parking structures (with other functions).

Negotiate with homeowners to support beach access as well as strategic property acquisition opportunities.

Establish public path linkages across perimeter properties within the 66' buffer to create a public recreational trail for tourism at the local precinct. Develop this segment by segment.

Develop areas for dedicated parking to encourage foot traffic in the downtown area.

Establish pedestrian boulevards with greening strategies and improve pedestrian connections across a range of public spaces, linking Placencia sidewalk with the waterfront.

This centrally located land has several resiliency values, including its unbuilt condition, its location in town on slightly higher ground, and the existence of a loop road around it. Near term, the Town could acquire this land & create a central village square and a green space network. In the future, a resilience center and raised road with elevated parking, shops and green spaces will provide a central market and a reinforced shelter.

Develop Placencia as a garden walking town. Work with the government to re-acquire land under Council title for long term resiliency and the greening of the village.

Work with the government to nullify land arrangements and return a portion to public acquisition for the people of Placencia. This is critical land for public access and for festival events including Lobsterfest.

Develop a boardwalk within the 66' buffer along the perimeter and create a mangrove park "strip" adjacent to Placencia. Allow some development to occur with the public boardwalk in place.

Develop a public planting and signage strategy along the beach to signify access.

*Beach nourishment should be actioned sparingly as it requires removing sand from elsewhere and dredging. Sea level rise & beach erosion also counter the benefits of adding sand. This should be carefully studied. To protect the beach from wave action, identify specific locations where sand can be used in upland beach areas with frontage.

LAS BRISAS ISLAND

Sunset Pointe

Placencia Rd

Bile Up St



PLACENCIA SPATIAL PLAN

Tourism & Adaption Concepts

Legend



- Raised Flood Defence Road
- Raised Easement Zone
- Main Pedestrian Connections
- Secondary Pedestrian Connections
- Shared Zone
- Pedestrian Downtown Core Area
- Raised Park & Future Site for Resilience Centre
- Expand Placencia Sidewalk to incorporate side alleys
- Potential Raised Parallel Parking Areas
- Future At Grade Parking Areas
- Improve location of recreation space through dedicating it as a refuge space
- Open Space / Parkland
- Landscape Corridors
- Pedestrian boulevards
- Restaurants
- Accommodation
- Tourism Tour Centres
- Built Form Setback & Flooding Resilience
- Potential Information Centre
- Cemetery
- Future site for Refuge Centre
- Views
- Pier Expansion
- Sea Routes
- Strengthen & Protect existing Mangrove patches
- Beach Protection through limiting future piers
- Potential for Beach Nourishment*
- Protect Pier Outlook & Maintain Green Edge To The Enclave

Site Plan by the UEDLAB, University of Melbourne 2023



PART 6

GIS AND COURSEWORK



0.0 INTRODUCTION

Mapping and data visualisation are essential tools in tourism planning, providing valuable insights and guidance for sustainable development. By utilizing GIS technology, we explore how mapping, data visualization and spatial modeling can enhance decision-making processes, assess the impact of tourism on local environments, identify potential areas for development, and promote responsible tourism practices. During this process, a few issues related to GIS services have been identified:

A. Data Availability and Quality

B. Data Integration and Interoperability

C. Human Capacity and Technical Expertise

D. Stakeholder Collaboration and Data Sharing

E. Policy and Governance Frameworks

Data availability is one of the primary concerns. Accurate and up-to-date data, including topography, hydrology, infrastructure, land use, transportation networks, natural resources, and up-to-date demographic data are crucial for informed decision-making. Limited access to comprehensive and high-resolution data can hinder the effectiveness of GIS-based spatial analysis. Meanwhile, incompatibilities in data formats, standards, and coordinate systems can pose challenges to seamless data integration and interoperability. Harmonizing data across different departments and agencies is necessary to ensure comprehensive and accurate analysis. Additionally, effective utilization of GIS for tourism planning requires a skilled workforce with expertise in spatial analysis and modeling, data management, and system administration. Limited human capacity and the need for ongoing training can be a constraint in fully leveraging the power of in Belize. Furthermore, effective tourism planning involves collaboration among various stakeholders, including government agencies, private sector entities, and local communities.

Encouraging data sharing and establishing mechanisms for collaboration can be crucial for comprehensive analysis and informed decision-making. Lastly, the absence of clear policies, guidelines, and governance frameworks related to data quality, production, sharing, and management can hinder integration into the decision-making process. Establishing supportive policies and regulations can help streamline the use of GIS technology for sustainable tourism planning and development.

A strategic landscape planning studio for postgraduate landscape architecture students at the University of Melbourne and three GIS workshops with stakeholders in Belize have been conducted to discuss and debate pressing issues such as geospatial data needs, data inventory and acquisition, data availability, data quality and data sharing. Through the three GIS workshops, it has become clear that a national GIS platform can play a vital role in addressing these challenges. A national GIS platform for Belize would be a comprehensive and user-friendly system that can be used by all entities in the country. It should serve as a centralized repository for spatial data, allowing data sharing (uploading and downloading); offer intuitive mapping and visualization tools that allow users to create and display maps, perform spatial analysis, and generate visual representations of data, and offer comprehensive training resources, tutorials, and user support to enhance the technical skills of users.

The establishment the GIS platform requires a collaborative effort between government agencies, academic institutions, and the private sector. There is also strong potential to continue working with University of Belize to move the vision forward. By leveraging its academic resources, expertise, and research capabilities, University of Belize can significantly contribute to the development, implementation, capacity building, and utilization of the GIS platform.

1.1 BELIZE STUDIO

Melbourne School of Design, The University of Melbourne

Studio Description

Broad scale landscape planning is an integrative component of landscape architecture. This studio engages with large landscapes from regional to local. GIS applications are introduced as a tool for exploring ecological and cultural systems across multiple scales to inform planning and development strategies for sustainable provision of ecosystem services.

Using Belize and its surrounding landscapes in general and an identified severely impacted landscape in particular, this studio introduces the conceptual framework for regional landscape assessment and planning; and a working knowledge of the GIS techniques applied to visualise and analyse demographic, ecological, cultural, and socioeconomic data for sustainable landscape planning. Taking a regional perspective in understanding the composition and configuration of human settlements and activities in the landscape, this studio aims to reshape the region's spatial pattern and form for sustainable tourism practice.

Sustainable tourism is defined by the UN Environment Program and UN World Tourism Organization as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.” Students are encouraged to explore studio topics including (but not limited to) identifying a region's physical and cultural tourism resources that influence the region's metabolic functions; conservation of natural environments and biodiversity for eco-tourism; linking existing urban centres and towns using green infrastructure to foster a coherent urban region to safeguard the quality of environment and host communities; and evaluating impacts of climate change (or CoVID-19) on tourism in Belize designing climate change resilient communities and landscapes for sustainable tourism development.

Studio Outcome

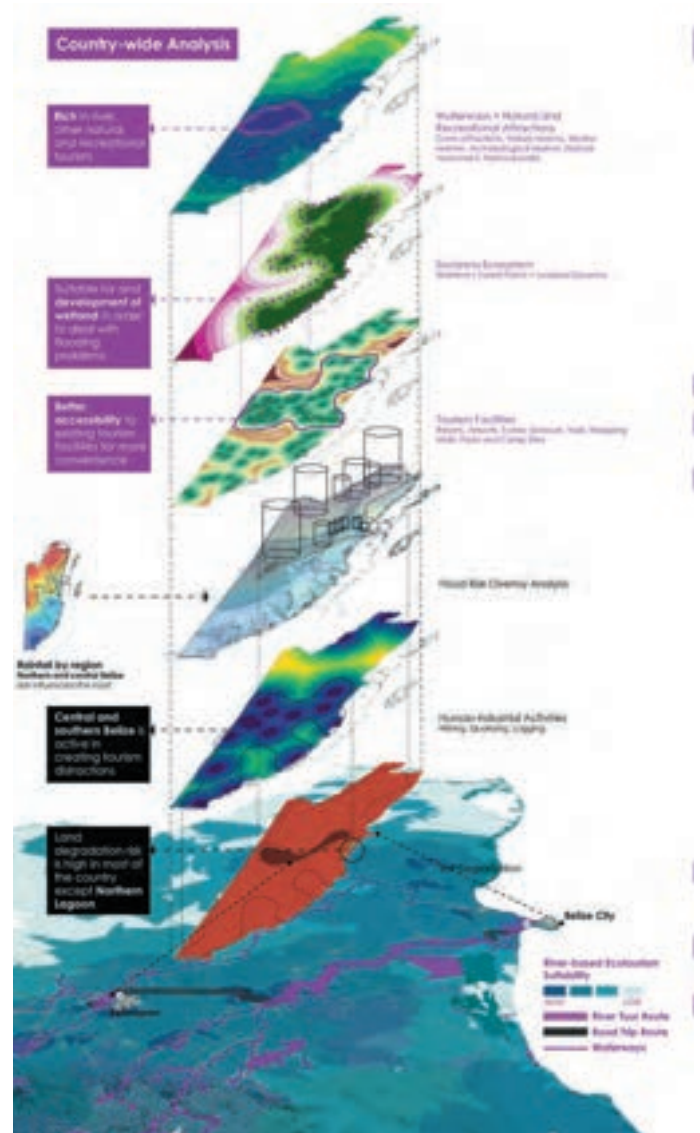
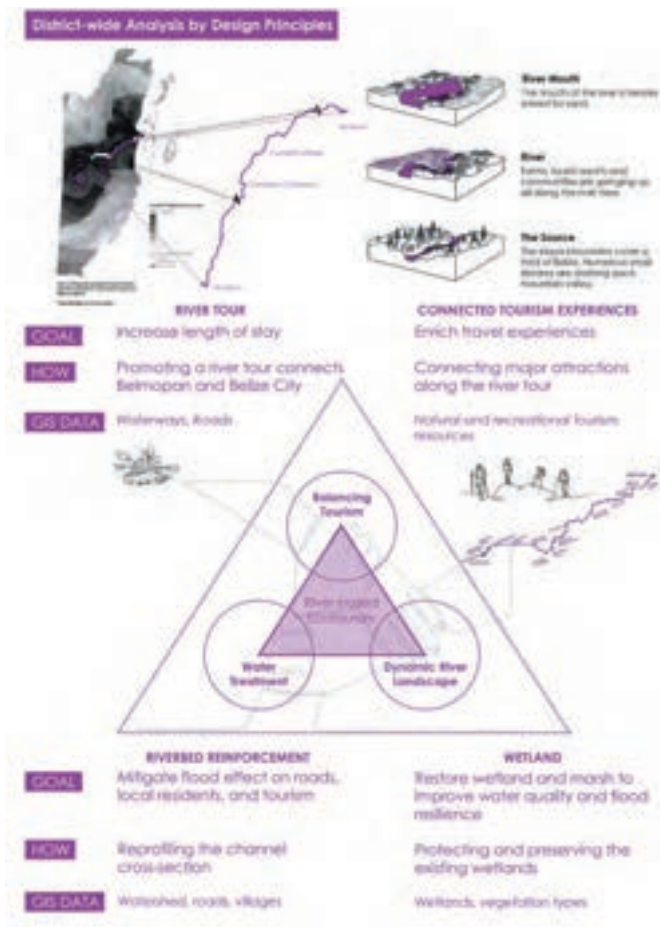
Students are required to operate both in group and independently, engaging in research and site analysis to formulate a studio position that will inform the design process and outcomes for your design project. Students will first conduct an in-depth research and site analysis to explore the site's environmental, social, cultural, and economic attributes and the opportunities and constraints they offer. This which will help inform the positioning of your studio project (Assignment 1). Then, students will develop a conceptual or spatial plan (Assignment 2) that proposes reshaping the nation's development to support sustainable tourism-related activities and spaces.

Assignment 2 will be based on the work produced for Assignment 1. Finally, students will prepare a master plan proposals (Assignment 3) for an identified area of high priorities. Again Assignment 3 will be based on Assignments 1 and 2. Weekly design exercises will support the development of these assignments. Students will need to 1) identify key theories that are associated with the ethical, cultural, and ecological processes to be translated into sustainable tourism planning; 2) employ precedents from within relevant design disciplines that focus on the identified issues and critically engage in the design process; 3) clarify insights the design brings to the topic through developing a strong and consistent design outcome that responds to the site and its context; 4) provide evidence of multiple design explorations – an iterative approach. Design process is clearly documented; and 5) articulate the design through effective design communication.

1.2 STUDENT WORK - Shurong Zhao

River-based Ecotourism

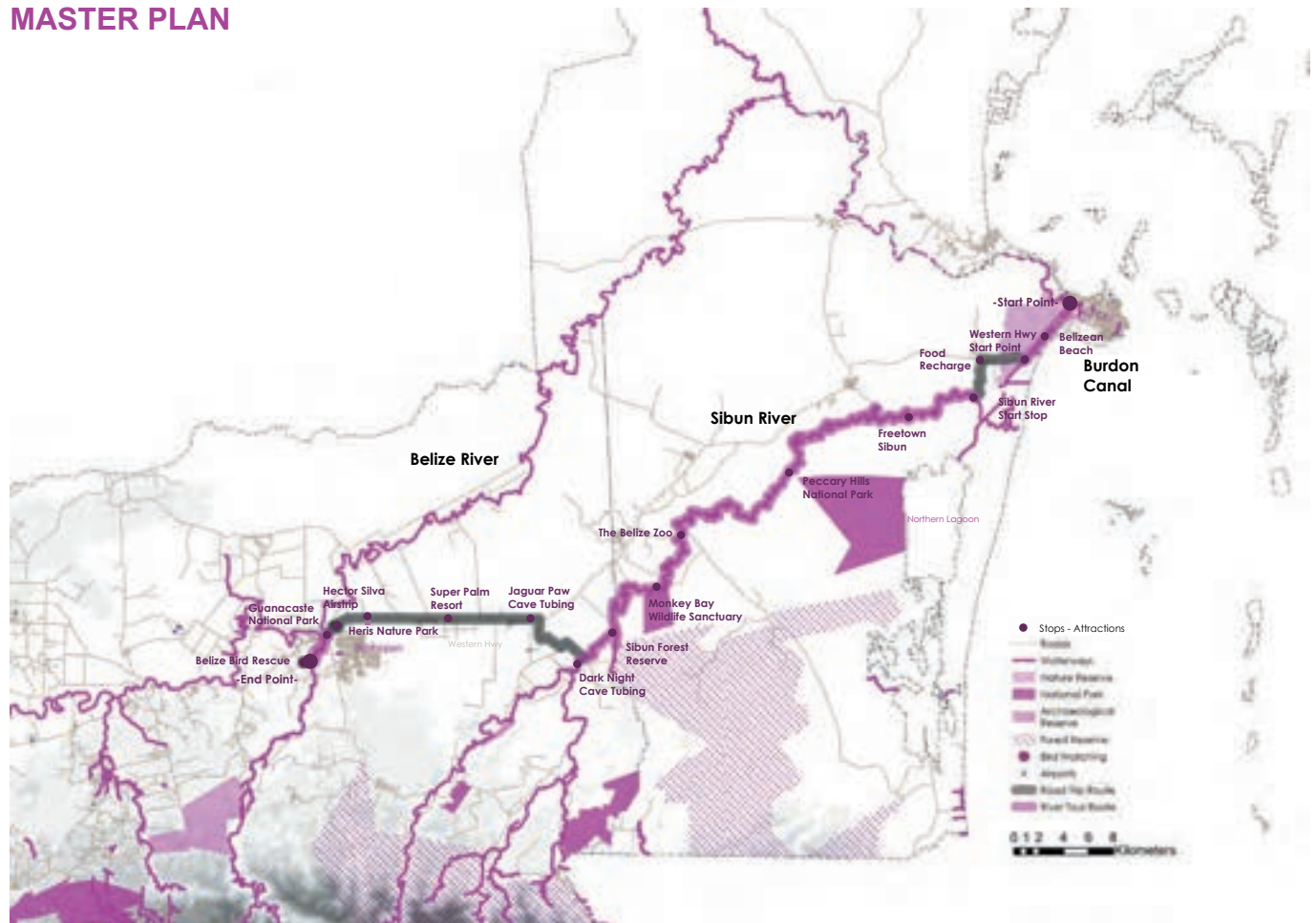
Belize river resources is a major tributary to the Caribbean sea which feeds the major ecosystem in the country. In order to balance out the tourism condition between inland and coastal line, the river-based ecotourism planning strategy introduces a new river tour and additional water treatment to attract more tourists, meanwhile minimizing the negative impact of flooding issues in the rainy season. In the early stage, it will start with the riverbed reinforcement, creating a dynamic river landscape. With all the improvement settled down, tourists will have a chance to experience specially-designed canoe river tour with all kinds of outdoor activities between Belmopan and Belize city.



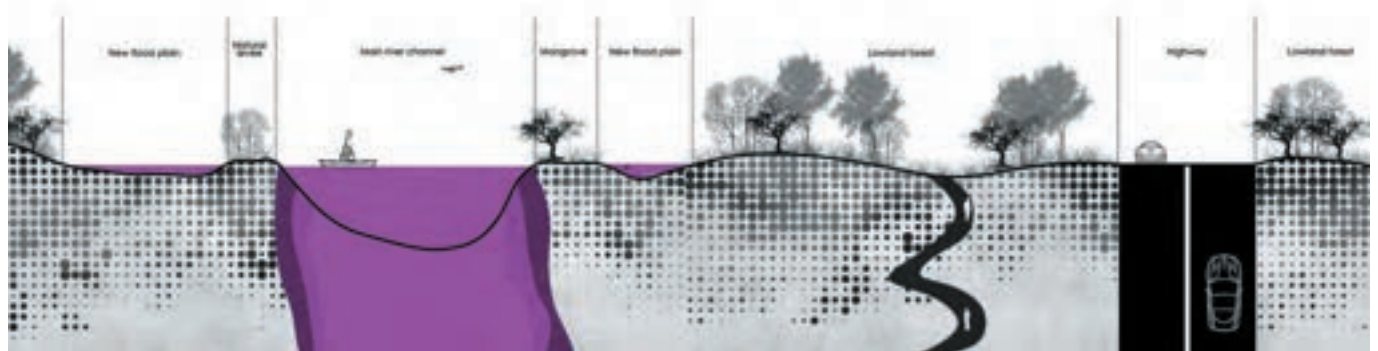
Why river tour?

1. Belize has enormous river resources due to the mountains terrain and increased rainfall.
2. Rivers flow from inland mountain to popular coastal cities, which is a perfect natural connection.
3. The River Tour route includes many attractions, which encourage tourists to increase their length of stays.

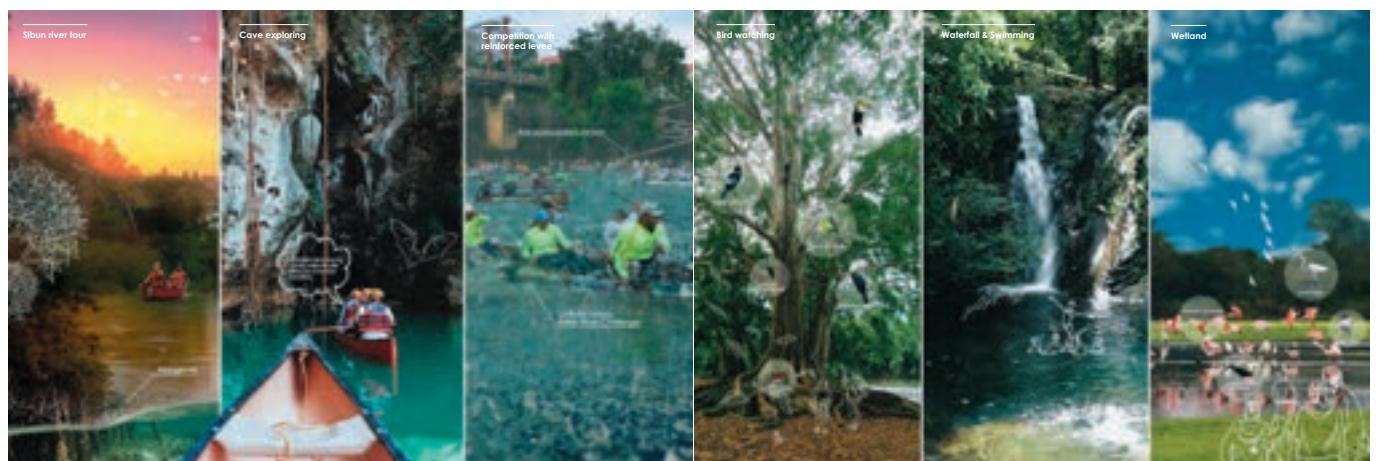
MASTER PLAN



SECTION



EXPERIENCE



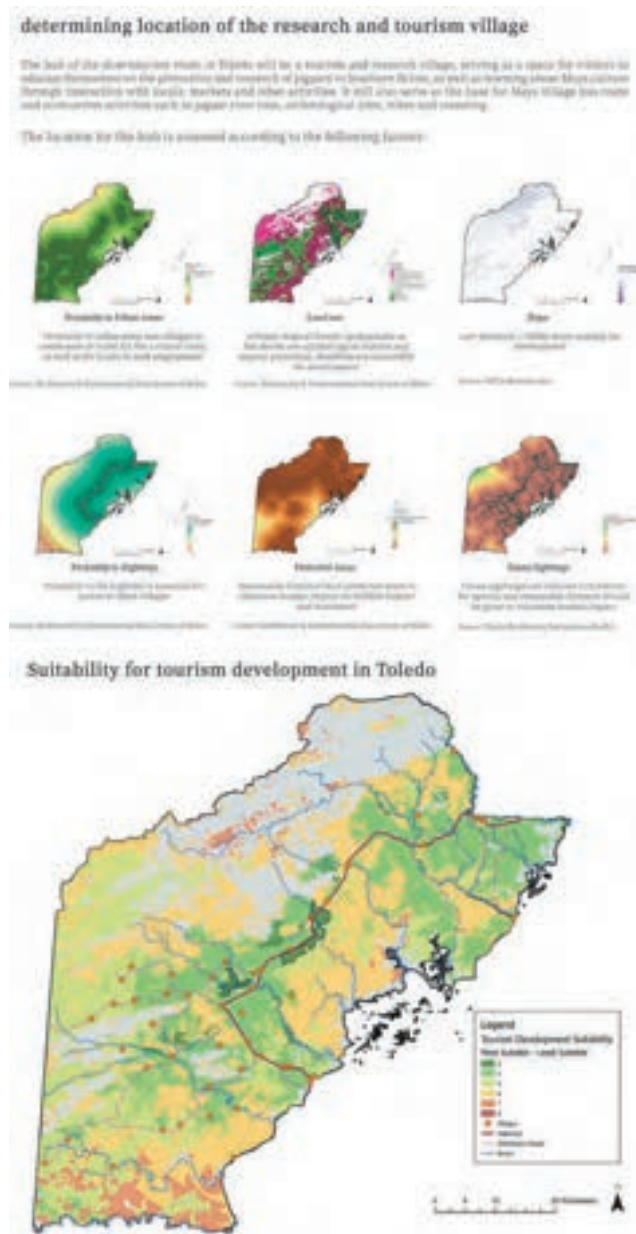
1.2 STUDENT WORK - Elise Connor

Slow Tourism, Jaguars in Toledo, Belize

In Belize, the jaguar is an important predator in the rainforest ecosystem and is seen as a symbol of great significance in indigenous Maya culture. Protection of jaguars is critical for the health of Belize's vast rainforest, however rising tensions between agricultural villages and the animal minimises the desire from local communities to participate in conservation activities.

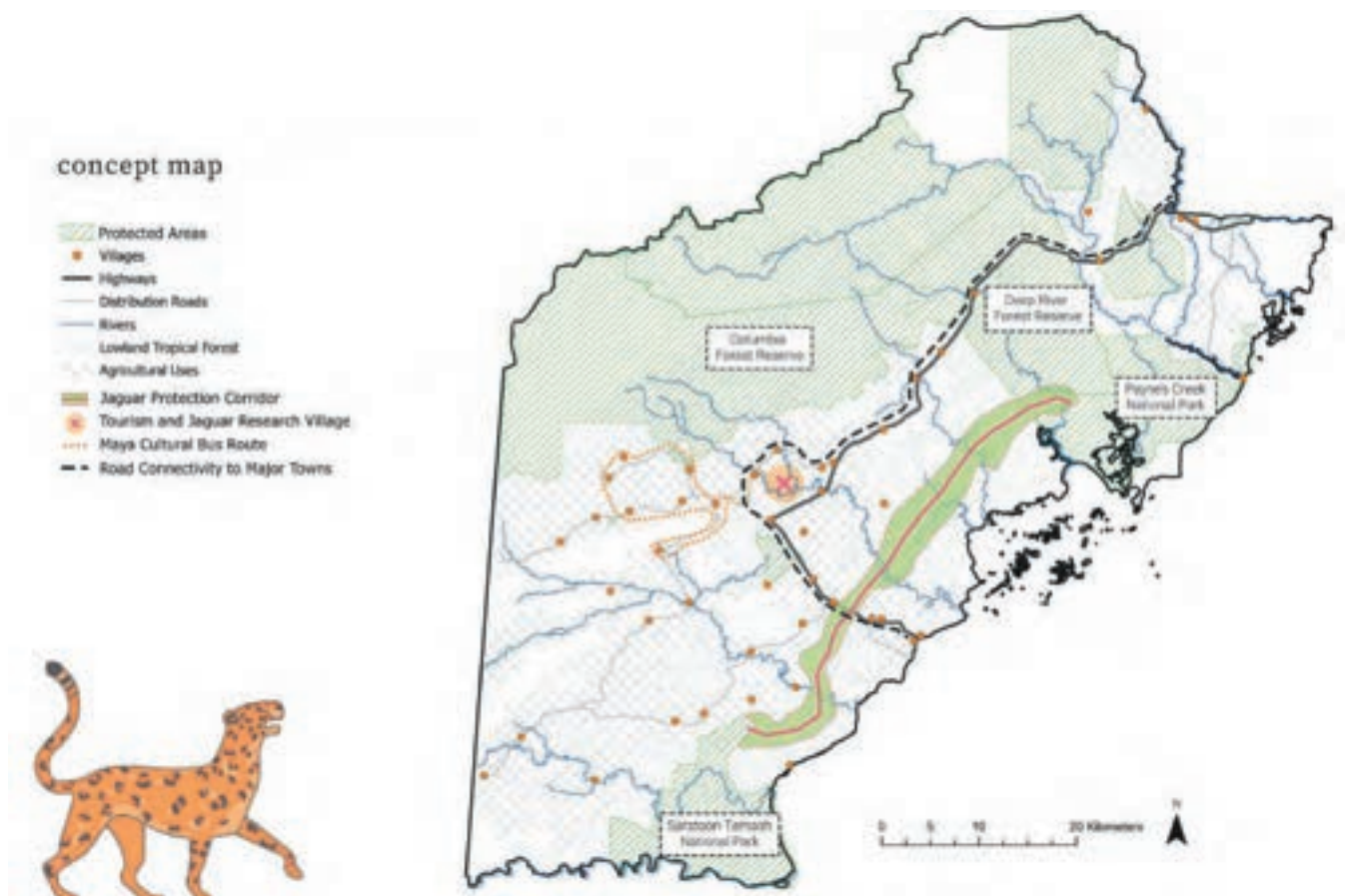
To assist with conservation efforts of the jaguar in southern Belize, an ecotourism route in Toledo centred on jaguar conservation in the local Maya communities can be established. The jaguar conservation and education centre will educate tourists on the conservation efforts occurring in the area and provide an economic incentive for the local communities to increase involvement in protection of jaguars and their habitat.

The centre will be a base point for cultural tours of the Maya villages, where visitors can learn about the cultural significance of the animal in Maya culture as well as deepen the understanding of Maya traditions and the threat the jaguar presents without proper habitat preservation.



Slow Tourism

Slow tourism can be defined as sustainable tourism development that has a positive economic, social, and environmental impact on a destination through slow paced, eco-friendly activities, accommodation, and transport.



Section AA

entry and visitors centre

typical Maya village huts to participate in Maya cultural lessons from locals

community garden and outdoor market square



Section BB



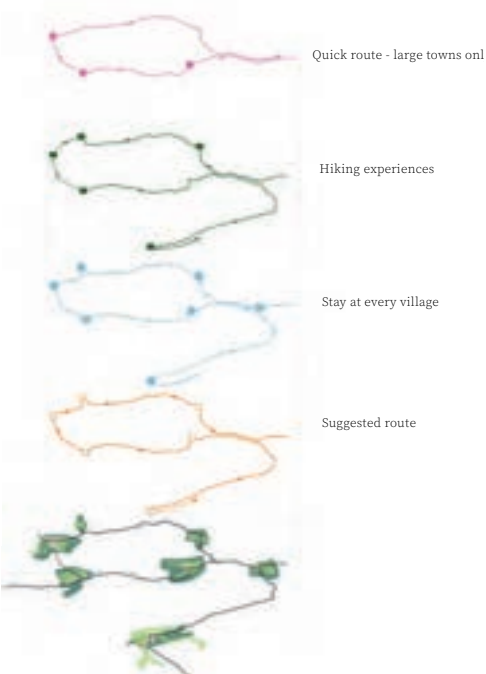
San Antonio

to waterfall via horseback

Maya traditional dance festival "Deer Dance"

alternative routes for visiting villages

While the bus route is self-guided and the amount of time spent in each village is determined by the visitor, the below routes can be used as a guide for specific experiences through the villages:





BIRDING ROUTES

CULTURAL ROUTE

Bird Species



Supporting Facilities



DAY ROUTE

Bird Species



Supporting Activities



Area of Interest

Crooked Tree Wildlife Sanctuary

Belize Maya Ruins

Captain Hook's Restaurant & Shrimp Farm

Museum of Belize

Bird's Isle

Faber's Lagoon

Burrell Boom

DESIGN INTERVENTIONS AT CROOKED TREE



2.0 WORKSHOP 01 & 02 - DATA QUALITY & ASSESSMENT

Workshop Purpose

- Interface with GIS professionals; and establish partnership and communication channel
- Review existing data
- Reviewing mapping/modelling outcomes based on existing data
- Discussing data quality and sharing
- Establishing data that are needed and what could be done with that data
- Envisioning building a GIS program in Belize: what would it look like

Workshop Overview

The objective of the GIS workshops is to establish collaborations between government and academic institutions, focusing on the sharing of GIS data for future planning purposes. In the initial two workshops, the existing data, including publicly available data, as well as data provided by the Coastal Zone Management Authority & Institute, Land Information Centre, and the University of Belize, will be evaluated. In the second part of the workshop, mapping outcomes using the available data highlight the potential opportunities and challenges involved in developing a GIS platform in Belize. The discussions with diverse stakeholders will aim to explore methods of supporting the planning process.

Workshop Discussion

- Data sharing as a challenge: status of national data - portal down and not operational
- Identify priority location (demographic data) - getting local demographic data is valuable
- Data sets not publicly online
- Lack of funding
- Integrating all datasets
- Wastewater management in Belize
- Data is not precise enough to produce regional scale planning
- Mapping outcomes show the potential GIS development direction
- Belize national infrastructure has better data resources
- Status of the system in terms of establishing a platform like this
- Developing an open datasets
- Coastal zone - data center
- UB-Currently not public online, will publish most of data online
- Land information center - run out of funding
- Need more GIS specialists
- Need username and password to access sensitive data
- CZMAI - non-sensitive will be publicly available
- For coastal zone - set up an online platform for coastal marine datasets on ecosystem health
- How to access ecosystem health-rely on satellites data

2.1 OVERVIEW OF EXISTING DATA

Data provided by LIC & UB

LIC

- URBAN_LANDUSE_COMPLETE.gdb
 - BELMOPAN
 - BENQUE
 - COROZAL
 - DANGRIGA
 - ORANGEWALK
 - PUNTAGORDA
 - SISE
 - Airtrips.shp
 - Archaeological_Sites.shp
 - belize_boundary_polygon.shp
 - Belize_Bridges.shp
 - Belize_DEM_30M.tif
 - Belize_Land_Use_1996.shp
 - Belize_FrostArea_2020.shp
 - Belize_Rivers.shp
 - Bze_BuildUpAreas.shp
 - update_road.shp
 - Updated_Settlements.shp
 - Belize Site and Attraction Listing excel.csv

ORANGEWALK

- OW_BOUNDARY_EXISTING
- OW_BOUNDARYPROP
- OW_LANDUSE
- OW_LANDUSE_PROPOSED
- OW_PTS_OF_INTEREST
- OW_WATERBODIES

PUNTAGORDA

- PG_BOUNDARY_EXISTING
- PG_BOUNDARY_PROP
- PG_LANDUSE
- PG_LANDUSE_PROPOSED
- PG_PTS_OF_INTEREST

SISE

- SANG_LANDUSE
- SANTAL_LANDUSE
- SE_PTS_OF_INTEREST
- SI_PTS_OF_INTEREST
- SISE_BOUNDARY_EXISTING
- SISE_BOUNDARYPROP
- SISE_LANDUSE_PROPOSED

URBAN_LANDUSE_COMPLETE.gdb

BELMOPAN

- BMP_BOUNDARY_EXISTING
- BMP_HIGHWAY
- BMP_LANDUSE
- BMP_LANDUSE_PROPOSED
- BMP_PTS_OF_INTEREST

BENQUE

- BENQUE_ADJACENT_AREAS
- BENQUE_ARCHAEOLOGY
- BENQUE_BOUNDARY_EXISTING
- BENQUE_BOUNDARY_NEW
- BENQUE_LANDUSE
- BENQUE_LANDUSE_PROP
- Benque_POINTS_OF_INTEREST
- BENQUE_WATERBODIES
- Benque_zones

COROZAL

- COROZAL_ARCHAEOLOGY
- COROZAL_BOUNDARY_EXISTING
- COROZAL_BOUNDARYPROP
- COROZAL_LANDUSE
- COROZAL_LANDUSE_PROPOSED
- COROZAL_PTS_OF_INTEREST

DANGRIGA

- DANGRIGA_BOUNDARY_EXISTING
- DANGRIGA_BOUNDARYPROP
- DANGRIGA_LANDUSE
- DANGRIGA_LANDUSE_PROPOSED
- DANGRIGA_PTS_OF_INTEREST
- DANGRIGA_RIVER_RESERVE_SWAMP
- DANGRIGA_VALUATION_ZONES
- DANGRIGA_WATERBODIES

Data provided by CZMAI

Data Type	Dataset Name	Resolution/ Scale	Dataset Date	Summary
TIFF	bz_nmhm_v20211009_classif_10m	10 meters	2021	Since late 2020, Belize's Coastal Zone Management Authority & Institute (CZMAI), supported by GRH Consulting Ltd., has been implementing the "AI for the Belize National Marine Habitat Map" project, which is funded by Microsoft, in the framework of a solicitation from the Group on Earth Observations' Biodiversity Observation Network (GEO BON). The project's overall objective is the updating of the National Marine Habitat Map(NMHM) using the significant cloud computing resources provided by Microsoft, with the specific objectives as follows: i. updating of the NMHM using more recent satellite data of Belize's marine areas ii. increasing the spatial resolution of the NMHM using higher spatial resolution imagery, and iii. making use of extensive cloud computing resources from Microsoft Azure for the update. While the original NMHM(1997) identified 19 total benthic habitat types, for the purposes of this project, one means of addressing the inevitable errors that were encountered was aggregating up to a simpler benthic classification, specifically the 4 types: i Coral-dominated, ii. Algae-dominated, iii. Bare substrate-dominated and iv. Seagrass-dominated.
TIFF	bz_nmhm_v20211009_classif_30m	30 meters	2021	See above
Polygon	bz_mangrove_littoral_cover_2019	1:1,300,000	2019	This dataset was developed to update the ~1990 national mangrove cover developed by Zisman (1998), and to assess Belize's national mangrove cover for the periods 1980, 1989, 1994, 2000, 2004, and 2010.
PDF	Technical report Spatial Assessment of Total Mangrove and Littoral Forest Cover for Belize, 2014-2019	-	2019	The overall objective of the study is to use remote sensing to examine how the areal cover of mangrove and littoral forest ecosystems have changed across Belize's landscape over the period 2014-2019, roughly coinciding with the MCCAP's duration. In addition to focusing on mangrove cover across all of Belize, the study is particularly focused on changes in mangrove cover within three priority coastal planning regions identified by the CZMAI, specifically Caye Caulke , Central Region, and South Northern Region. This study is also intended to update the most recent assessment of Belize's mangrove cover, completed in 2018 (Cherrington et al. 2018). The results of this study were also validated using a standard accuracy assessment.

(01/07)

Data Type	Dataset Name	Resolution/ Scale	Dataset Date	Summary
PDF	AI for the Belize National Marine Habitat Map Report 2021	-	2021	-
point	bz_ports	1:700000	2016	-
Polyline	bz_shipping_lanes	1:1700000	2016	To aid in marine conservation planning
Polyline	watertaxi_route	1:700000	2016	-

(02/07)

Data Type	Dataset Name	Description
TIFF	bz_nmhm_v20211009_classif_10m	<p>The dataset contains the Coral-dominated, Algae-dominated, Bare substrate-dominated and Seagrass-dominated and can be found in two versions, a 10m and a 30m resolution.</p> <ul style="list-style-type: none"> The geographic domain includes 20,538 km² area including all of Belize's territorial sea, and an area extending a little into Belize's Exclusive Economic Zone (EEZ), where the tri-national marine borders of Belize, Guatemala, and Honduras intersect. Data from the Copernicus Sentinel-2 were used, because of the 10m spatial resolution of its spectral bands in the visible part of the electromagnetic spectrum. Level 1C Top-of-Atmosphere (TOA) reflectance data from Sentinel-2 are available from the Copernicus Open Access Hub (https://scihub.copernicus.eu/dhus/#/home). The Sentinel-2 data were acquired from and pre-processed with the Google Earth Engine (GEE) cloud processing platform (https://code.earthengine.google.com). To improve the spatial resolution of the NMHM, higher spatial resolution PlanetScope data (4.77m) from Planet were also evaluated, and acquired from https://www.planet.com/basemaps/. The project focused the mapping on the Sentinel-2 data because the publicly available Planet imagery only has four bands in the visible and near-infrared (VNIR) part of the electromagnetic spectrum; the Sentinel-2 data possess thirteen (13) spectral bands. A total of 3,918 training samples were used to train the supervised classifications In the Azure VM, in the ArcGIS Desktop environment, supervised classifications in the form of Maximum Likelihood Classification (MLC), Random Trees, and Support Vector Machines were run, in addition to ISODATA unsupervised classifications The supervised classification runs were limited to training datasets C2 and H. To facilitate testing and comparison, outside of the Azure virtual environment, prior to running the classifications on the Azure VM, some 90 supervised classification runs were prototype using GEE. In addition to the supervised classifiers available in ArcGIS on Azure, in GEE, the following classifiers were tested with nine (9) indicated versions of the training data: Classification and Regression Trees (CART), Naïve Bayes, Random Forest (with 5 different iterations based on the number of 'trees') & Support Vector Machines (SVM). The report can be found with the accompanying datasets or you can contact director@coastalzonebelize.org or gismanager@coastalzonebelize.org.
TIFF	bz_nmhm_v20211009_classif_30m	See above

(03/07)

Data Type	Dataset Name	Credits	Use Limitations	Tags	Contact
TIFF	bz_nmhm_v20211009_classif_10m	The Belize Coastal Zone Management Authority and Institute & GRH Consulting, 2021, AI for the Belize National Marine Habitat Map. The CZMAI will be cited as “Belize Coastal Zone Management Authority and Institute” whenever its data are used in publications and reports are produced. The GRH Consulting will be known as “GRH Consulting” whenever its data are used in publications and reports are produced. The collection of this data was funded by Microsoft, in the framework of a solicitation from the Group on Earth Observations’ Biodiversity Observation Network (GEO BON).	Artifacts are present due to the differences in orbital tracks for the Sentinel 2 Satellites and the image artifacts are responsible for areas which are misclassified. Less dense areas of seagrass will likely be dominated by the sandy substrate on which the seagrass grows, making for mixed pixels that will likely be spectrally more similar to bare substrate areas. Report on the generation of the NMHM (Matus 1997) revealed gaps in documenting the workflow originally used in producing the NMHM, so it could not be replicated using the same workflow. Therefore, comparative analysis between the two datasets is not advised.		creole.royale@gmail.com
TIFF	bz_nmhm_v20211009_classif_30m	See above	See above		creole.royale@gmail.com

(04/07)

Data Type	Dataset Name	Description	Credits	Use Limitations	Tags	Contact
Polygon	bz_mangrove_littoral_cover_2019	<p>This dataset depicts Belize's national mangrove cover in the years 1980, 1989, 1994, 2000, 2004, and 2010, based on the ~1990 baseline established by Simon Zisman.</p> <p>The dataset was developed by using satellite imagery to detect where how mangrove cover has changed between 1980 and 2010.</p> <p>The source data for this effort include:</p> <p>Landsat 3 Multispectral Scanner (MSS) imagery,</p> <p>Landsat 5 Thematic Mapper (Landsat TM) imagery, and</p> <p>Landsat 7 Enhanced Thematic Mapper Plus (Landsat ETM+) imagery.</p> <p>This represents the preliminary version of this data, developed for the World Wildlife Fund (WWF)'s Mesoamerican Reef program in July 2010.</p>	Emil A. Cherrington and Robert E. Griffin, CZMA	-	Mangrove 2019 Report	creole.royale@gmail.com
PDF	Technical report Spatial Assessment of Total Mangrove and Littoral Forest Cover for Belize, 2014-2019	Report on Mangrove 2019 Study by Emil Cherrington				

(05/07)

Data Type	Dataset Name	Description	Credits	Use Limitations	Tags	Contact
PDF	AI for the Belize National Marine Habitat Map Report 2021	Report on the GEOBON Project and findin	Belize Coastal Zone Management Authority and Institute & GRH Consulting, 2021, AI for the Belize National Marine Habitat Map. The CZMAI will be cited as "Belize Coastal Zone Management Authority and Institute" whenever its data are used in publications and reports are produced. The GRH Consulting will be known as "GRH Consulting" whenever its data are used in publications and reports are produced. The collection of this data was funded by Microsoft, in the framework of a solicitation from the Group on Earth Observations' Biodiversity Observation Network (GEO BON).		GEOBON, Marine Habitat, Coral , Seagrass,	
point	bz_ports	-	-		Belize Ports	gismanager@coastalzonebelize.org

(06/07)

Data Type	Dataset Name	Description	Credits	Use Limitations	Tags	Contact
Polyline	bz_shipping_lanes	This map illustrates the principal transportation routes within the Belize coastal zone. In addition to merchant and passenger ships, two oil tankers, which between them carry almost two million gallons of oil, visit Belize City each month.	Gibson et al. 1993, "Guidelines for Developing a Coastal Zone Management Plan for Belize: the GIS Database"	NOT to be used for navigational purposes	Shipping Lanes	gismanager@coastalzonebelize.org
Polyline	watertaxi_route	Water Taxi Routes	-	-	Water Taxi Routes	gismanager@coastalzonebelize.org

(07/07)

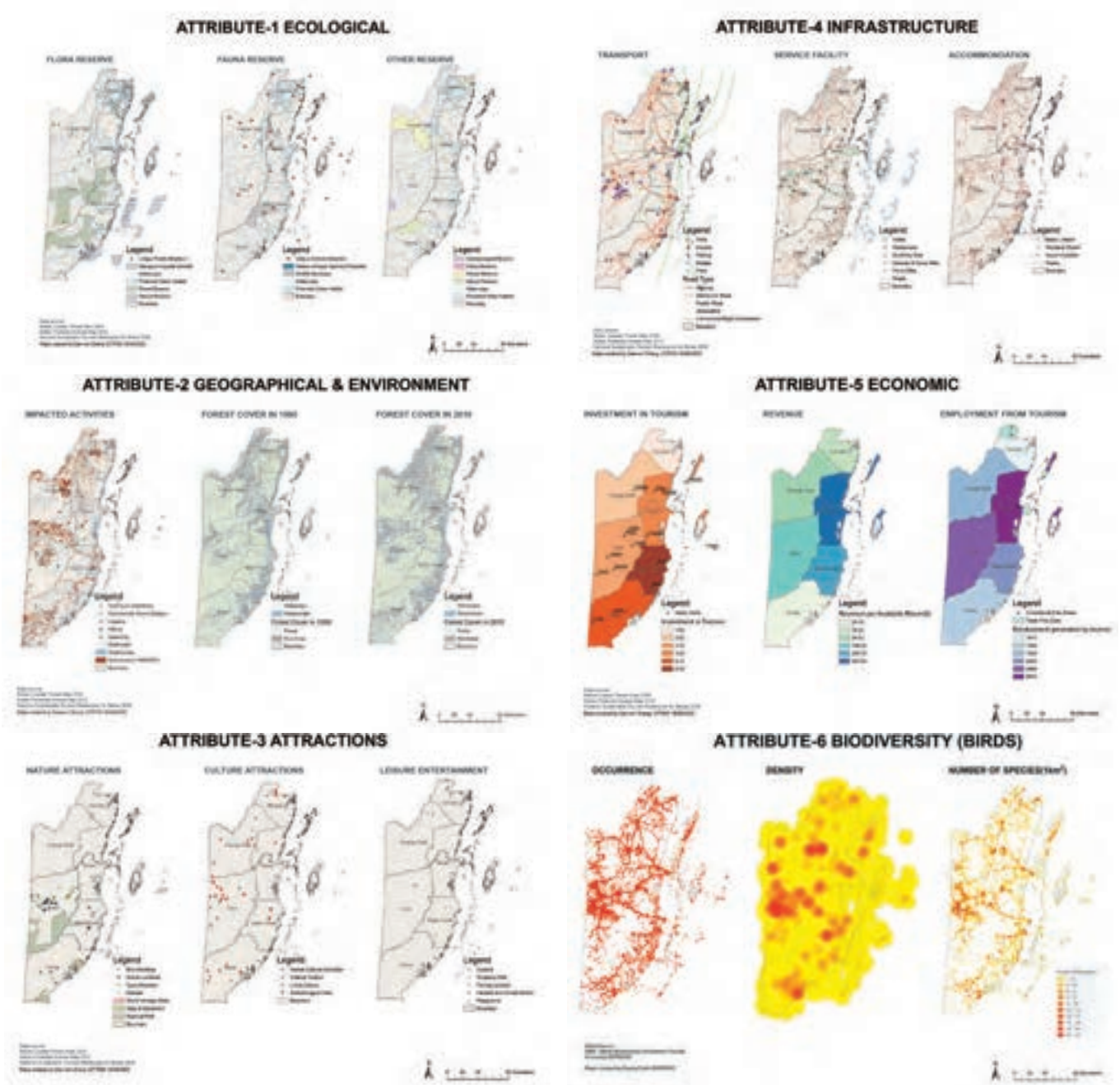
Belize Marine Data



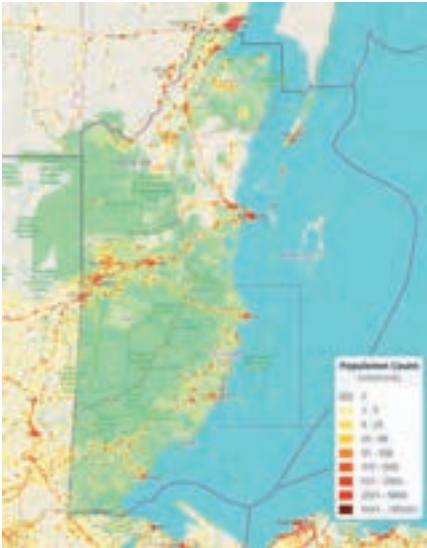
Data provided by the University of Melbourne



Belize Studio Preliminary Mapping Outcomes



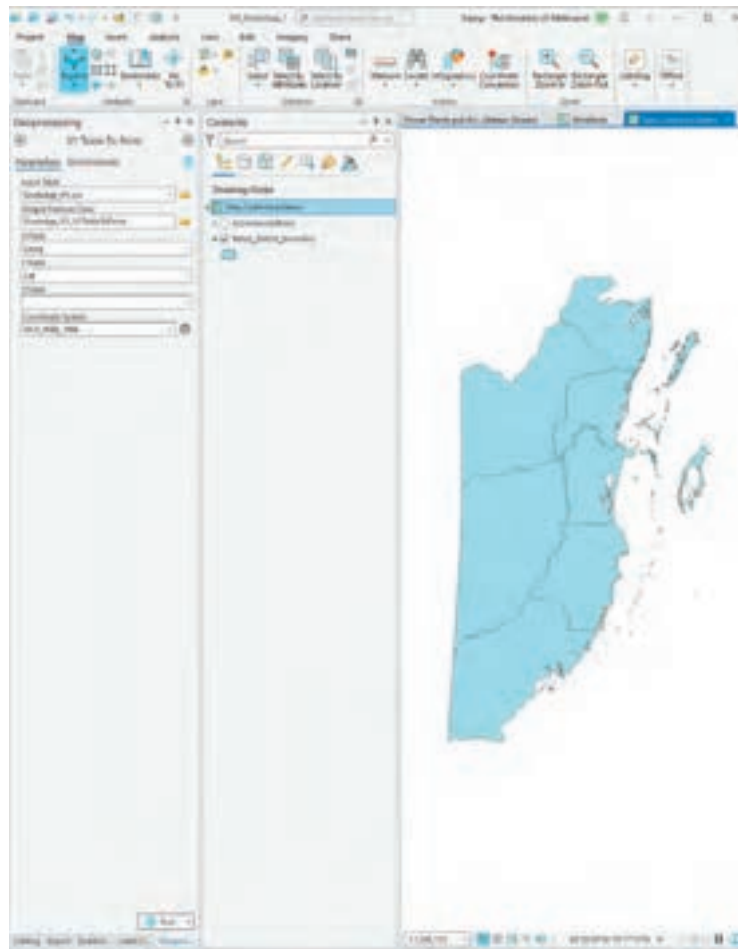
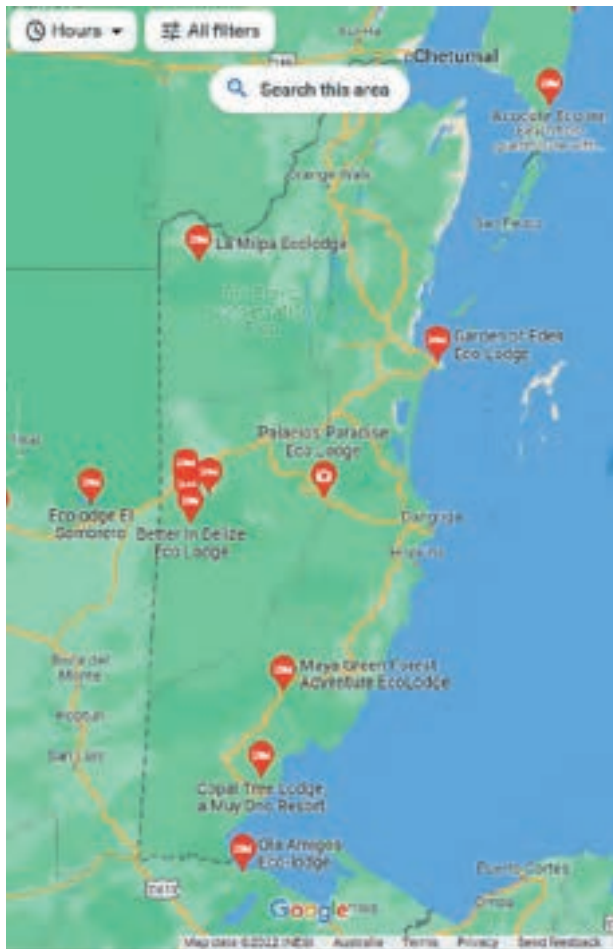
PV power potential
(globalsolaratlas.info)



Landscan
Population Data
(landscan.ornl.gov)

Data collection demonstration using ArcGIS Pro:

Ecology, Biodiversity, Solar power potential, Population data and ArcGIS online



Step 1: Collecting coordinate points of ecolodges in Belize on GoogleMap

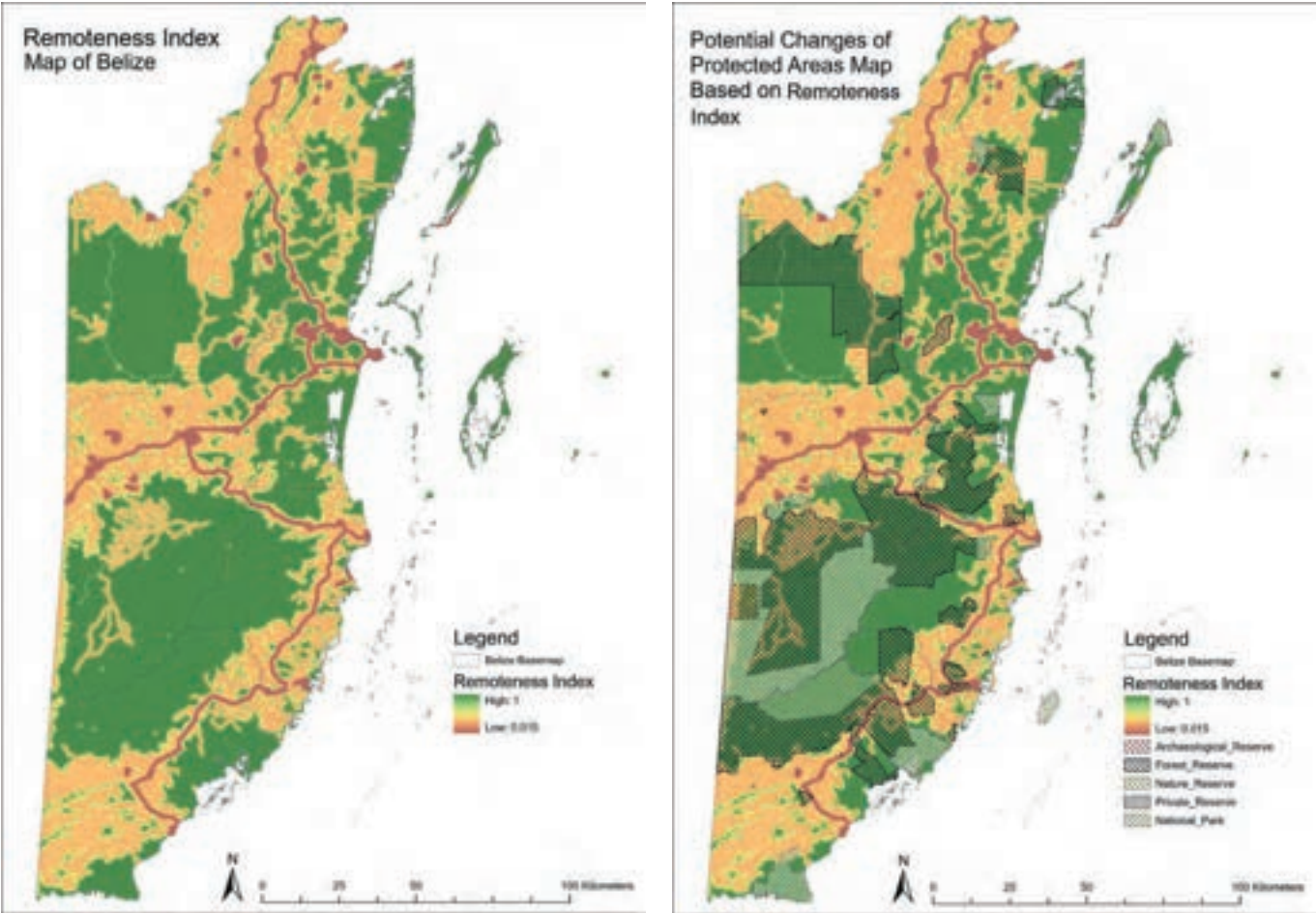
Step 2: Inserting coordinate points to Excel

Step 3: Using *XY Table To Point* tool to get the locations of existing ecolodges on ArcGIS

Ecolodge	Lat	Long
1 Maya Green Forest Adventure ecolodge	18.44197	-88.72917
2 Atlixia Ecolodge	18.65280	-87.73600
3 Garden of Eden Ecolodge	17.30903	-88.26714
4 Better in Belize Ecolodge	16.98156	-88.04747
5 La Milpa Ecolodge	17.84109	-89.02926
6 Ecoodge El Sombrero	17.05406	-88.18739
7 Table Rock Jungle Lodge	17.12307	-89.06233
8 Stark Rock Lodge	17.04790	-88.09849
9 Inn the Bush Eco-Jungle Lodge	17.07925	-89.06520
10 Copal Tree Lodge	16.16635	-88.31179
11 Mampala Jungle Lodge	17.06776	-88.98519
12 Sweet Spring Jungle Lodge	17.09547	-88.08918
13 Hotel Captain Rose Ecolodge	16.99924	-88.70582
14 Accorche Eco Inn	18.34217	-87.81171
15 Palacios Paradise Ecolodge	17.07348	-88.19794

2.2 MAPPING OUTCOMES

Remoteness Index



Data and Methodology

Human Land Use or Impact Factor	RS	DoI	Distance-Decay Function	Data Sources
Transportation Infrastructure				
Primitive roads (e.g., dirt roads and trails)	0.65	0 - 250	linear growth	LIC
Local roads	0.3	0 - 1000	logistic growth	LIC
Major highways	0.015	0 - 2000	logistic growth	LIC
Low density development	0.6	0 - 500	logistic growth	ESRI
Medium density development	0.35	0 - 1000	logistic growth	ESRI
High density development	0.015	0 - 2000	logistic growth	ESRI
Powerlines / Transmission line	0.6	0 - 200	linear growth	Google Map
Mining locations	0.2	0 - 1000	logistic growth	Google Map
Managed and Modified Land Cover				
Grazing/pasture	0.7	0 - 500	Linear growth	ESRI
Cropping/cultivated agriculture	0.35	0 - 1000	linear growth	ESRI
Population				
Population density	0.7	0 - 1000	linear decay	Landscan

Remoteness Score (RS)

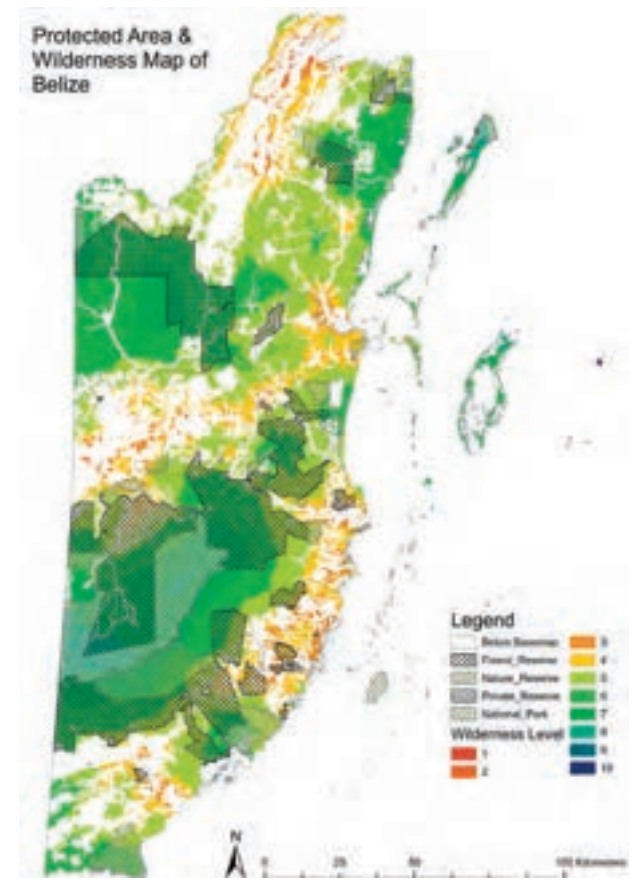
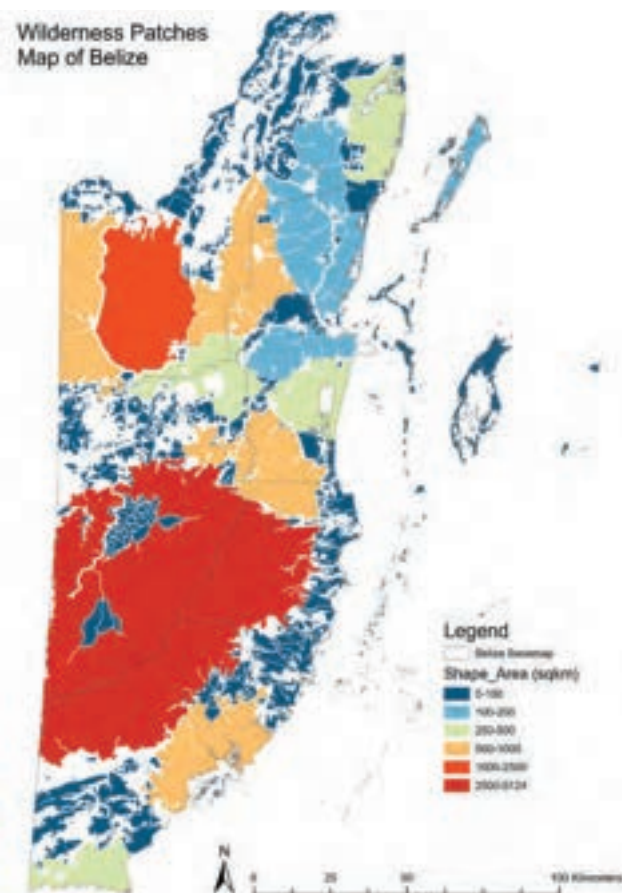
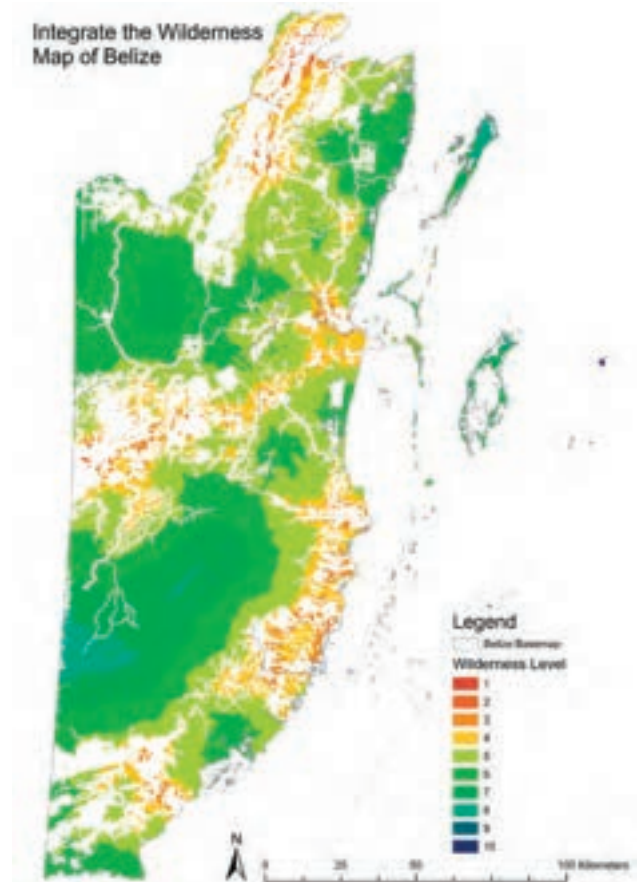
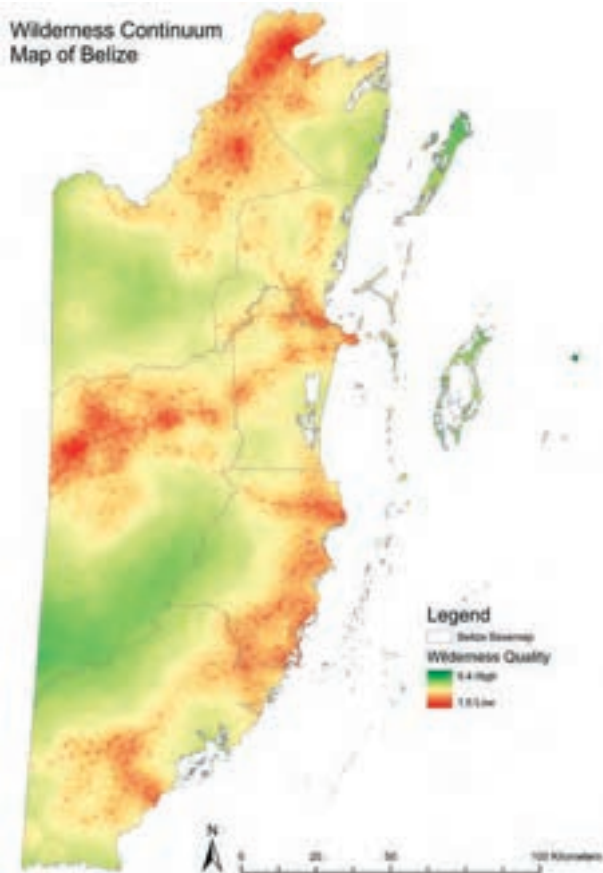
- RS ranges between 0 and 1 and provides an indication of presumed ecological stress or impact.
- Lower RS values (closer to 0) indicate a greater site impact.

Distance of Influence (DoI)

- Distance of influence is the minimum distance at which intactness/integrity values approach 1.0

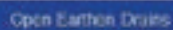
(Walston & Hartmann, 2018; Cao et al, 2019)

Wilderness Index



PART 6: GIS AND COURSEWORK

Types of Drainage Systems



Pedagogical



1060 J. Wang



Maintenance

Flow Rate

Knowledge of the Canal System

Effects

Flooding

Water Quality

Recovering the East and Color Canals

Sewer Disposal Type

Concerns



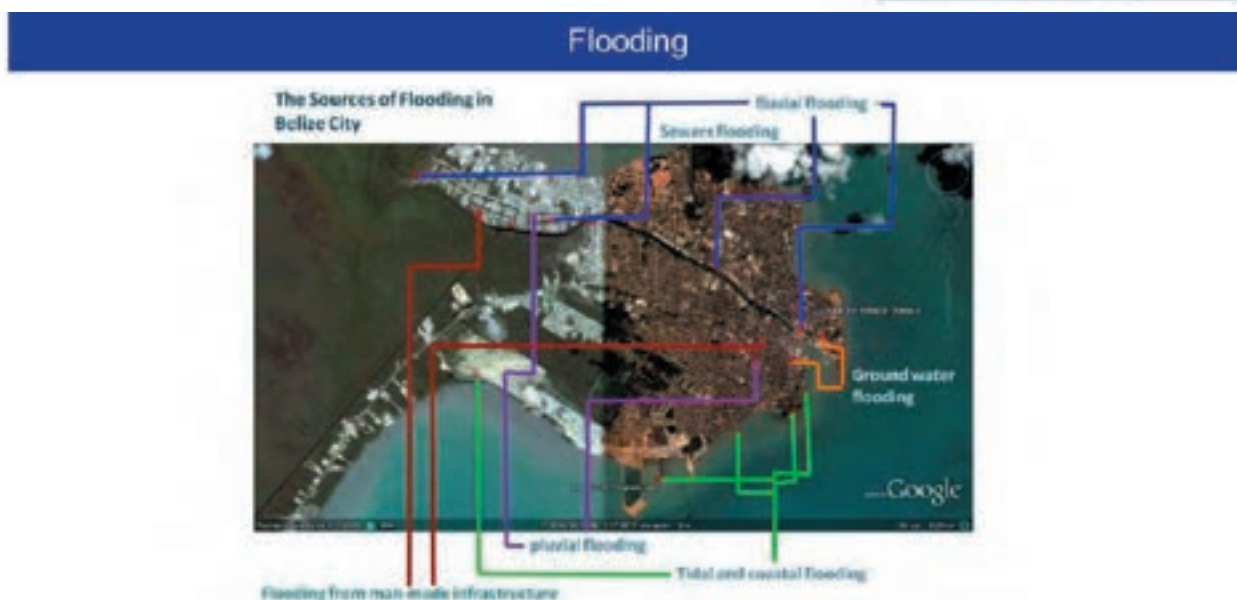
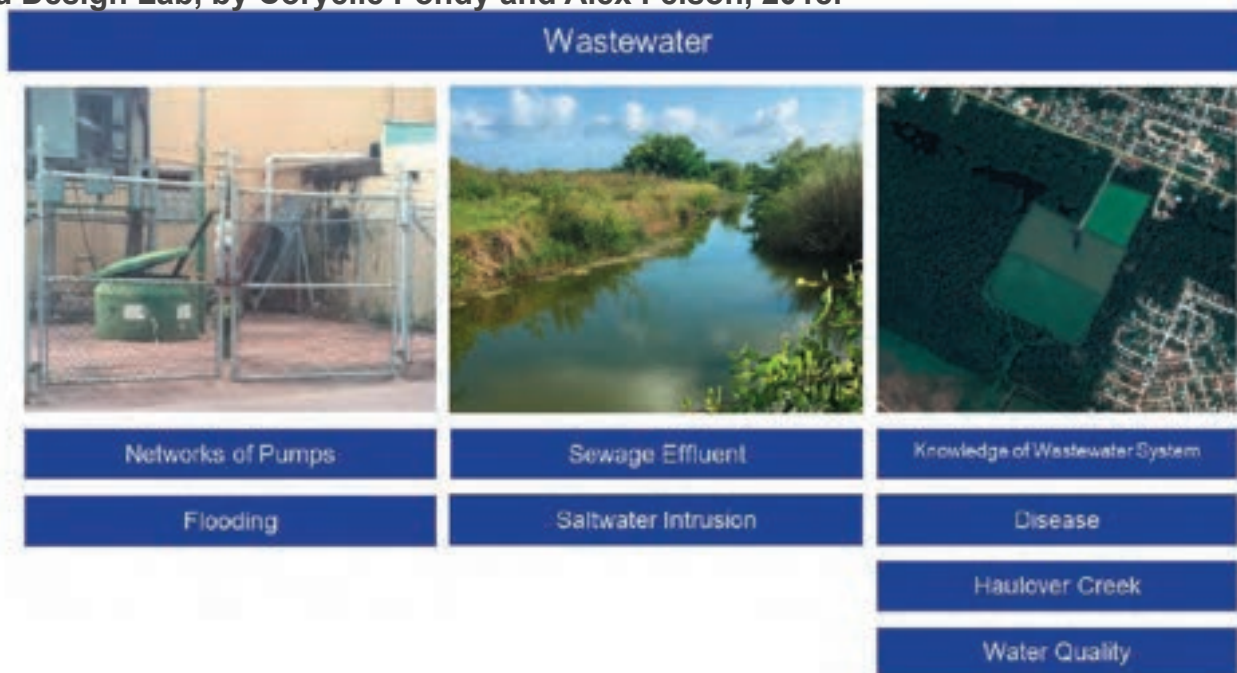
HEATING			FUEL	
	Usage	%		%
Non-Fossil Renewable Energy	0.73	8		
Green Gas from Crop Waste	0.75	10		
Green Tech Solutions	1.4	44		
Hydrogen Energy	24.5	26	95	100

© 2004 Blackwell Publishing Ltd

Legend

- Blue: 2000-2004
- Green: 2005-2009

Climate Change and Resilience Strategies developed at Yale University Urban Ecology and Design Lab, by Coryelle Pondy and Alex Felson, 2018.



Flooding	
Health Risks	Knowledge around Flooding
	
Risks of Each Flooding Type	Types of Flooding
Effects of Sea Level Rise	Health Impacts
	Water Quality

Source: San Pedro Sula

Source: Channel 5 Belize

Climate Change Resilience Strategy

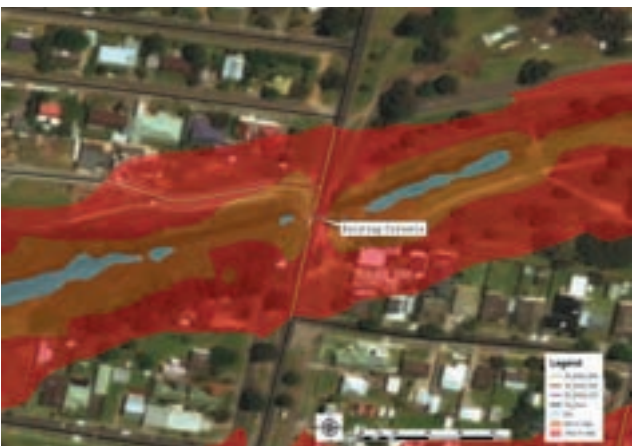
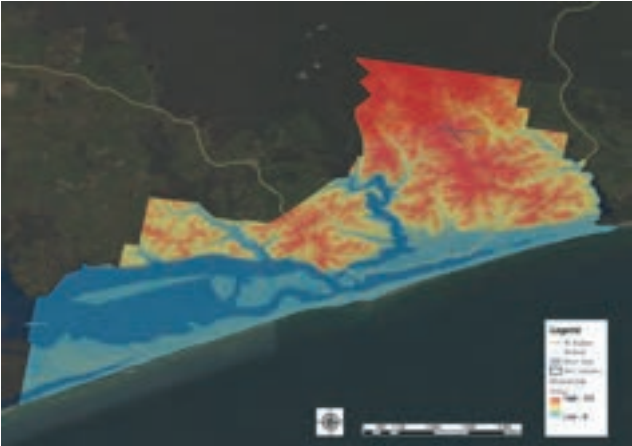
Figure 2-3 Key Roads and Features of Belize Transport Network



Built into Infrastructure

Inform Management Plans

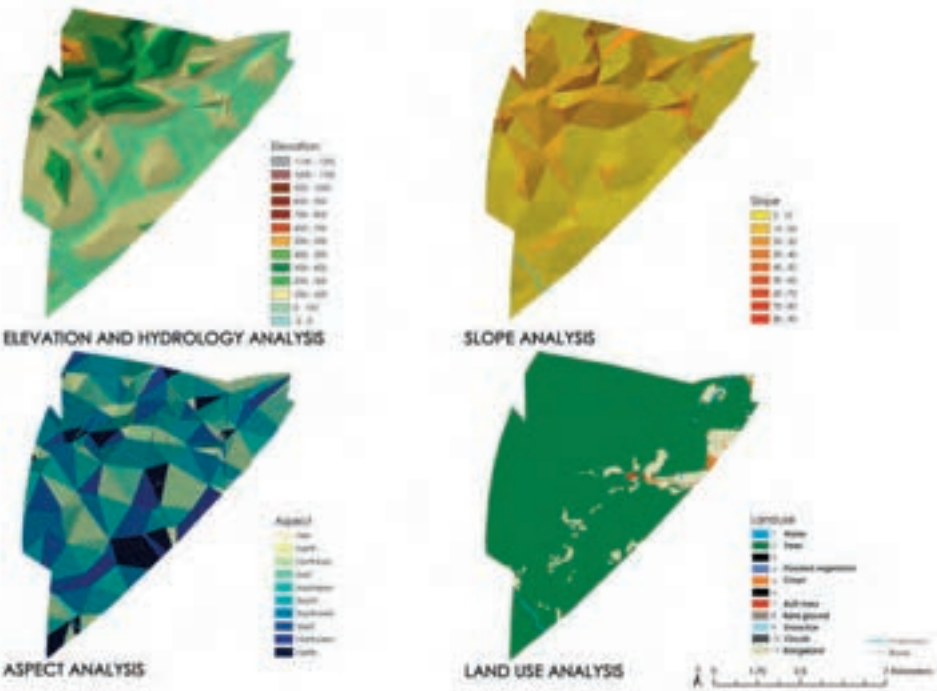
Climate Change Resilience Strategies: Coastal Infrastructure



Jungle Lodge Suitability Analysis

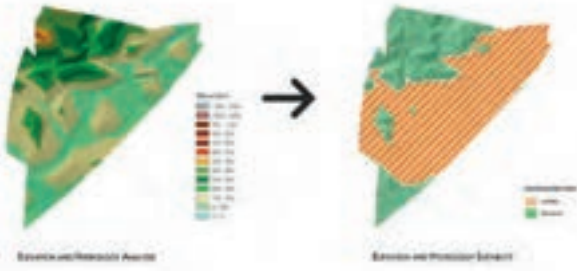


Basemap	Design Principles for Suitable Development Locations	Criteria for Site Suitability Analysis
Elevation and Hydrology	Development is limited to non-water-sensitive zone	50m-120m
Slope	Development is limited to gentle or medium slopes	0-25%
Slope Aspect	Development is limited to gentle or medium slopes	South, Southeast and Southwest
Current Land Use	Development is limited to bare ground, range land areas, to protect existing forest biodiversity	Bare ground (0-green) Range land (11-light yellow)



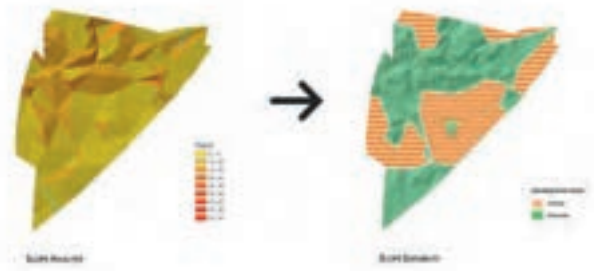
Elevation and Hydrology

Areas between 100m - 200m are most suitable for development



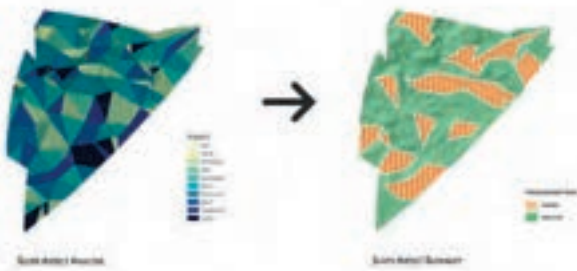
Slope

Areas between 15-25% are most suitable for development



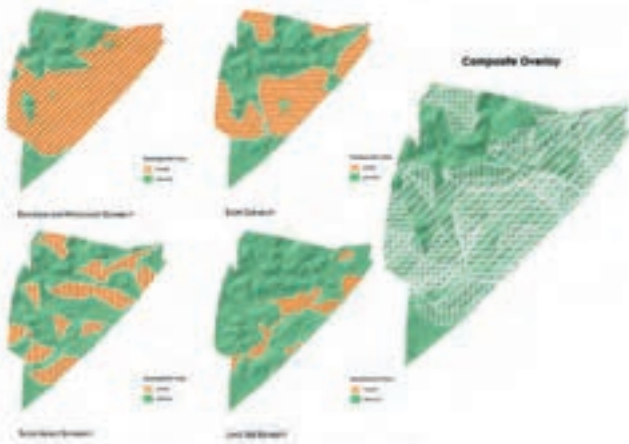
Slope Aspect

Areas facing south, southeast and southwest are most suitable for development

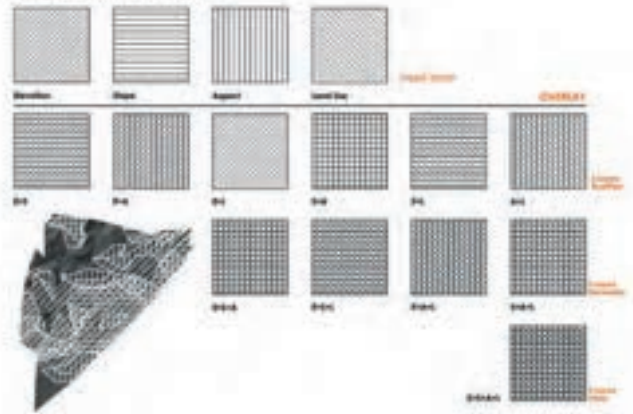


Land Use

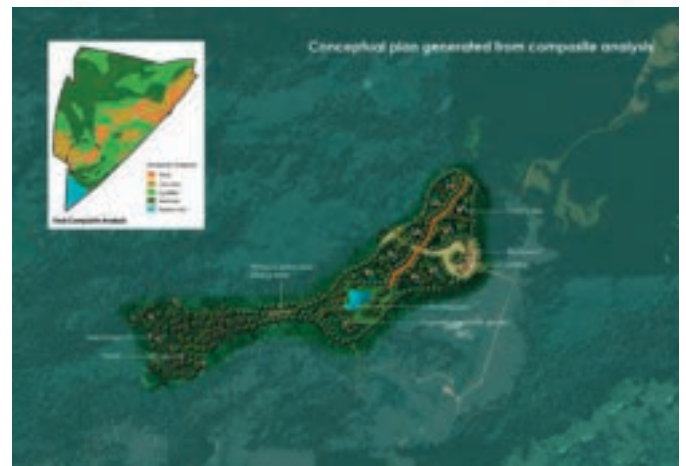
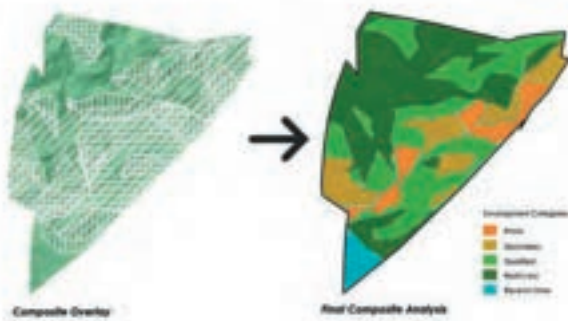
Areas of agricultural and forest cover are most suitable for development



Permutations and combinations



From site inventory to concept plan



Solar Farm Suitability Analysis



Criteria for Site Suitability Analysis

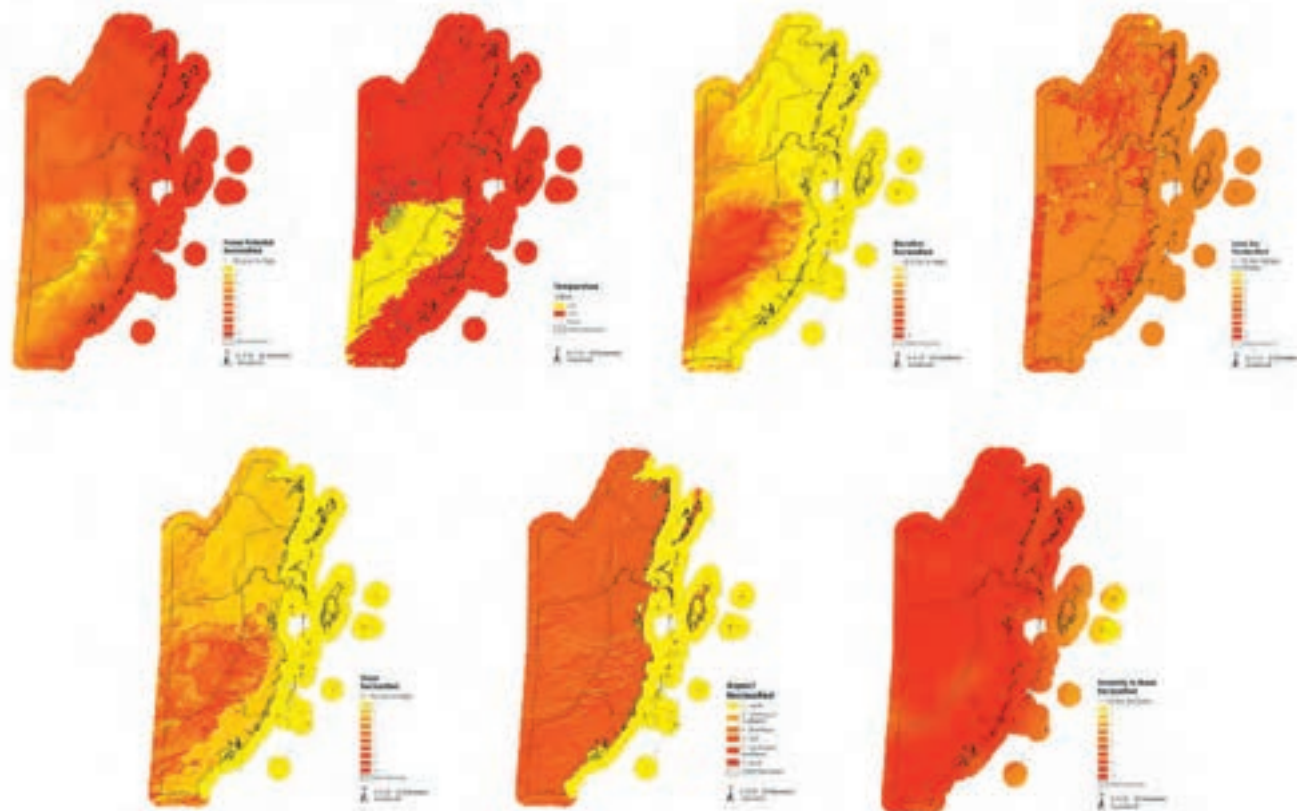
Basemap	Data Source	Criteria for Site Suitability Analysis	Influence (%)
Elevation and Hydrology	SRTM Elevation Data	Unsuitable land	10%
Slope		Unsuitable land	15%
Slope Aspect		Southwest and Northwest	2%
Temperature	Bioclimatic & Environmental Resource Data System of Belize	Unsuitable land	3%
PV power potential		Highly power potential	40%
Proximity to road	Global Scale Atlas	Close to road	3%
Current land use	Cor	Water bodies, Swamp land	30%

Source: Adapted from the criteria for site suitability analysis of the solar farm project in Belize.

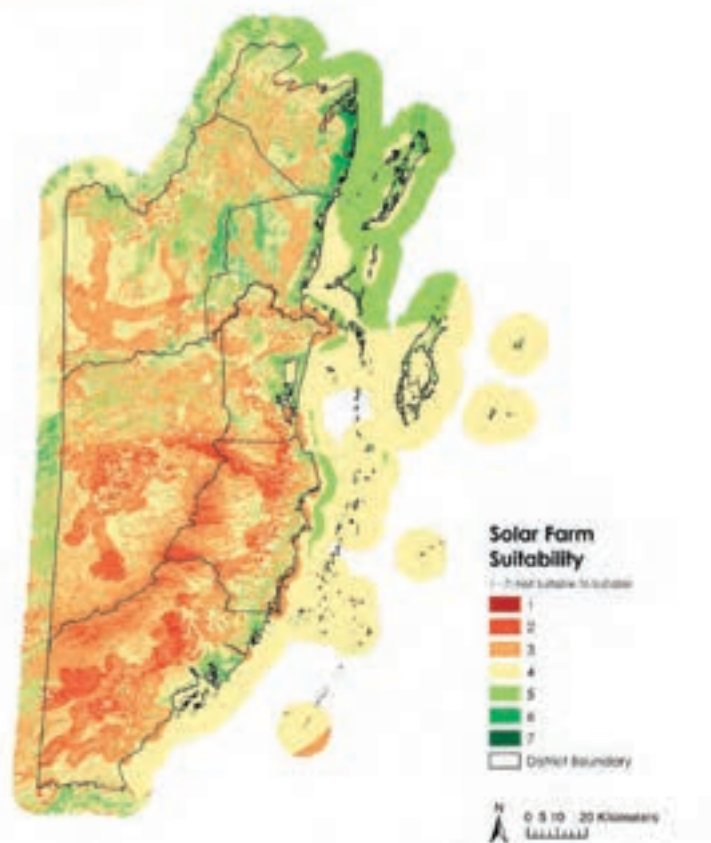
Analytical Hierarchy Process (AHP) Method



Reclassified layers of evaluation criteria



Solar Farm Suitability Analysis generated from ArcGIS



2.3 ENVISIONING A GIS SYSTEM IN BELIZE

DATA QUALITY

Topics for Discussion

1. Data Accuracy
2. Data Completeness
3. Data Consistency



ISO 19115-2:2013 Geographic Information - Data Quality
<https://www.iso.org/standard/62225.html>



Example: displaced or elongated features

Meta Data

1. Metadata is an important, but unfortunately oft overlooked component of GIS data.
2. Essentially, metadata is a description of the GIS data set that helps the user understand the context of the data.
3. Examples of information (this is not a comprehensive list) contained within metadata
 - Creation date of the GIS data
 - GIS data author, contact information
 - Source agency
 - Map projection and coordinate system
 - Scale
 - Error
 - Explanation of symbology and attributes
 - Data dictionary, data restrictions, and licensing

DATA SHARING AND FOLDER MANAGEMENT SYSTEM

Topics for Discussion

1. **Coordination of data and service sharing:** Coordination in the context of data and service sharing relates to the provision of a sustainable structure to develop, facilitate and streamline the sharing of data and services.
2. **Framework agreements:** An arrangement that includes two or more partners and covers the conditions for access/use of data sets and services established prior to use.
3. **Transparency on the data:** Important information is readily accessible and that it is widely spread and communicated to all stakeholders.
4. **Public access:** Public access is about the ability of the public to discover, view and download information and data and to use available services and data.
5. **Licences:** Licences are tools to specify the terms that apply to a data sharing arrangement.
6. **Emergency use:** the use of spatial data in case of disaster that requires a coordinated response of services and organisations of various disciplines in order to remove the threat or to limit the harmful consequences.
7. **Third party data:** Public authorities often hold third party data as part of their datasets.

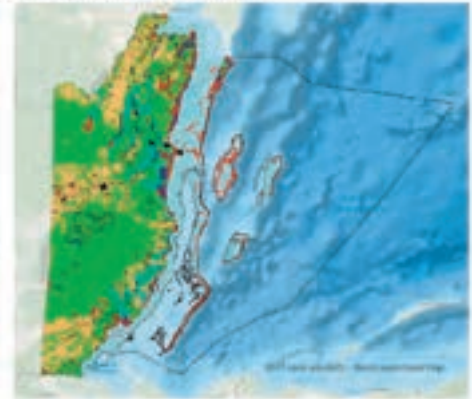
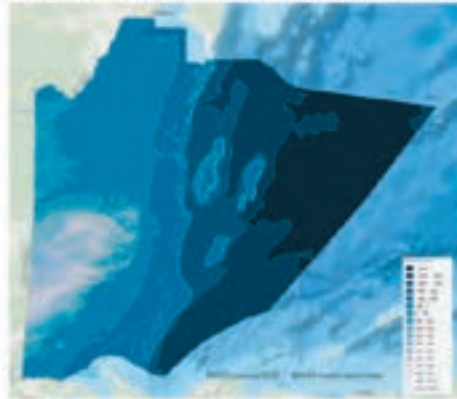


Filecloud, 2019

EVALUATING DATA NEEDS AND OPPORTUNITIES FOR DATA ACQUISITION

Topic for Discussion

- 1-5m contours?
- Remote Sensing, Lidar cloud points?
- Hydrological/sewer infrastructure data (sewer pipes, stormwater pipes, pump stations, retaining walls, bridges, etc)
- Bathymetry data?
- Digital Twin Belize?
- Climate change Considerations
- Sea Level Rise
- Sanitation



ENVISIONING BUILDING A GIS SYSTEM IN BELIZE

Topic for Discussion

- National Geospatial Open Data
 - Belize National Spatial Data Infrastructure
 - Spatial Data Warehouse: BERDS
 - Statistical Institute of Belize (SIB)
 - GIS at SIB
- Belize CASA?
 - Tourism Information System
 - Vegetation Information System
 - National Infrastructure
 - Natural Disaster Monitoring and Response



- Annual Belize ESRI User Conference (BEUC): promoting the use of GIS technology as a platform for national development

Discussion

- Need of sea level rise analysis in terms of the tourism perspective
- Use pump to keep water moving
- No flood draining system in the cit
- Currently managing the capacity, no big plan
- Port management will affect the mangrove
- Mapping out Belmopan and San pedro sewage system (not currently shared)
- Projects looking for grand funding
- Flood water management
- Sewage system is expensive
- Spatial planning needs data support

3.0 WORKSHOP 03 - NEW GIS PLATFORM

Key areas to consider towards establishing a GIS platform in Belize

1. Infrastructure needed to support GIS platforms.

- This includes the hardware, software, and networking equipment needed to store, process, and distribute geospatial data.
- This could involve acquiring servers, storage devices, and networking equipment, as well as licensing software such as GIS software, database management software, and web servers.

2. Data Acquisition and Management.

- This involves the collection, storage, analysis of geospatial data, and the development of data standards and protocols.
- Data acquisition: investment in equipment such as GPS receivers, drones, and cameras.
- Data management would involve developing processes for data entry, data cleaning, and data storage, as well as establishing data quality assurance procedures.

3. Spatial Analysis allows users to extract meaningful insights from geospatial data.

- This includes tools and techniques for spatial data analysis, such as GIS modeling, geostatistics, and spatial regression.
- Might entail investment in GIS software and develop expertise in using GIS tools and techniques.
- Could involve training programs for analysts and other professionals, as well as developing partnerships with universities and research institutions.



4. Interoperability

Interoperability enables different systems to communicate with one another. This includes:

- Development of open data sharing protocols and standards.
- Integration of GIS platforms with other systems.
- Investment in tools and technologies for data exchange, such as development of APIs (Application Programming Interfaces) and web services.
- Implementing metadata standards for geospatial data.

5. Stakeholder Engagement

- This involves engaging with various stakeholders such as government agencies, NGOs, and the private sector to identify their data needs and ensure that the GIS platform meets their requirements, which is critical to the success of the GIS platform.

6. Capacity Building

- This involves the development of skills and expertise in GIS technology, including training programs, workshops, and other initiatives aimed at building a skilled workforce capable of effectively using GIS platforms.
- This could involve developing university programs in GIS and geospatial technologies, as well as offering workshops, short courses, and other training programs for professionals in government, industry, and academia.



Current State of GIS in Belize

- GIS infrastructure: physical and digital components required to support the development, implementation, and maintenance of a GIS.
- GIS interfaces: ways in which users interact with a GIS to perform tasks such as visualisation, analysis, etc.
- Data sources, data quality (including meta data) and data sharing protocols.
- Current (and potential) users.
- Ways in which GIS is used.

How GIS can be used in Tourism planning

- To map the geographic distribution of visitors and to identify patterns in travel behavior (Visitor Profiling).
- To map tourism attractions and services such as hiking trails, scenic viewpoints, and other natural attractions (Destination Mapping).
- To map sensitive areas, track visitor flows, and identify areas where visitor impacts are concentrated (Carry Capacity Analysis).
- To map biodiversity hotspots, to analyze visitor impacts on ecosystems, and to develop sustainable tourism practices that benefit both visitors and local communities (Ecotourism Planning).
- To assess the resilience of coral reefs to stressors such as overfishing, pollution, and climate change, and to identify areas that are most vulnerable to their impacts (Coral Reef Resilience).

Top 10 Desired Datasets

#	GIS Dataset	Description	Desired Spatial Resolution	References
1	Bathymetry data	Datasets showing water depth in the area of interest	5m	A resolution of 5m captures the necessary detail for identifying potential locations for wind turbines and other offshore structures (Musial et al. "Understanding the Design and Cost of Offshore Wind Farms," National Renewable Energy Laboratory, 2010).
2	Coastal zone data	Information about shoreline, tidal zones, and other coastal features	30m	A resolution of 30m balances detail with file size and is sufficient for capturing the coastal land boundary. This resolution is widely used in studies of coastal ecosystems, erosion, and land use (Costanza et al. "The Value of Coastal Wetlands for Hurricane Protection," <i>Ambio</i> , 2008).
3	Seabed sediment data	Information about the characteristics of sediment on the seabed	50m	A resolution of 50m is sufficient for assessing sediment composition, which is important for understanding the environmental impact of offshore structures. This resolution has been used in various studies of sediment transport and deposition, such as those focused on dredging and beach nourishment (Pye and Allen. "Sediment Transport and Depositional Processes," <i>Encyclopedia of Ocean Sciences</i> , 2009).
4	Wind data	Information about wind speed and direction in the area of interest	200m	A resolution of 200m captures regional wind patterns and is desirable for assessing wind resource potential and energy production from offshore wind farms (Wang et al. "Assessing the Offshore Wind Energy Potential in the United States," <i>Applied Energy</i> , 2015).
5	Land cover data	Information about vegetation, buildings, and other features on land near the coast	30m	A resolution of 30m captures the majority of land cover changes and is widely available from satellite imagery and aerial photography. This resolution is sufficient for various applications, such as land use planning, biodiversity conservation, and climate change modeling (European Space Agency. "Global Land Cover Map," 2020).

(01/02)

#	GIS Dataset	Description	Desired Spatial Resolution	References
6	Navigation data	Information about shipping lanes, navigational hazards, and other maritime traffic	10m	A resolution of 10m is sufficient for identifying shipping channels and other navigation hazards in coastal waters. This resolution is commonly used in nautical charts and navigation aids, such as electronic chart displays and global positioning systems (International Hydrographic Organization. "IHO Standards for Hydrographic Surveys," 2008).
7	Ecological data	Information about habitats and species of ecological concern in the area	30m	A resolution of 30m is sufficient for identifying ecological features, such as wetlands, forests, and coral reefs. This resolution is commonly used in ecological mapping and conservation planning, as well as in studies of ecosystem services and biodiversity (Houghton et al. "Digital Mapping of Mangrove Ecosystems: An Application of GIS," Global Ecology and Biogeography Letters, 1994).
8	Infrastructure data	Information about existing infrastructure, such as cables and pipelines	50m	A resolution of 50m is sufficient for identifying major infrastructure, such as roads, power lines, and pipelines. This resolution is commonly used in infrastructure planning and management, as well as in studies of environmental impacts and risks (U.S. Department of Transportation. "National Transportation Atlas Database," 2021).
9	Coastal erosion data	Information about the rate and extent of coastal erosion in the area	5m	A resolution of 5m captures the necessary detail for assessing the extent and magnitude of erosion processes. This resolution is widely used in coastal zone management, hazard assessment, and adaptation planning (Trembanis et al. "The Use of High-Resolution Topographic Data in the Coastal Zone," Oceanography, 2010).
10	Property ownership data	Information about the ownership of land and water in the area of interest	30m	A resolution of 30m is commonly used for land ownership and cadastral mapping, as it balances detail with file size and computation time. This resolution is sufficient for identifying land parcels and property boundaries, which are essential for understanding land tenure and conducting land use planning and management (UN-Habitat. "Land and Tenure," 2021).

(02/02)

GIS Entities in Belize

Abbreviation	Organization	Functions/ Services	History	URL
BNSDI	National Spatial Data Infrastructure	Coordinates and promotes sharing of geospatial data and technology across Belize	Established in 2013 under the auspices of the Ministry of Economic Development, Petroleum, Investment, Trade and Commerce.	https://nsdi.gov.bz/
CZMAI	Coastal Zone Management Authority and Institute	Manages and protects Belize's coastal resources and ecosystems	Established in 1998 under the Coastal Zone Management Act.	http://www.coastalzonebelize.org/
SIB	Statistical Institute of Belize GIS Unit	Data management, mapping, analysis, and dissemination	Established by the government in 1980	https://sib.org.bz/about-us/gis/
LIC	Land Information Centre	Manages and disseminates land-related information to support decision-making and land management in Belize	Established in 2003 under the auspices of the Ministry of Natural Resources and Agriculture.	https://mnra.gov.bz/lic
UB	University of Belize	Offers GIS training and degree programs in GIS and related field	GIS courses and degree programs have been offered at UB since the early 2000s.	https://www.ub.edu.bz/
NEMO	National Emergency Management Organization	Uses GIS to identify areas vulnerable to natural disasters, monitor and manage relief efforts during disasters, and plan for disaster response	NEMO was established in 1998 under the National Emergency Management Act, and began using GIS for disaster management in the early 2000s.	https://nemo.org.bz/
PACT	Protected Areas Conservation Trust	Provides funding and support for management and conservation of Belize's protected areas, using GIS to identify and prioritize areas for conservation and monitor protected areas	PACT was established in 1996 under the Protected Areas Conservation Trust Act, and began using GIS for conservation management in the early 2000s.	https://www.pactbelize.org/

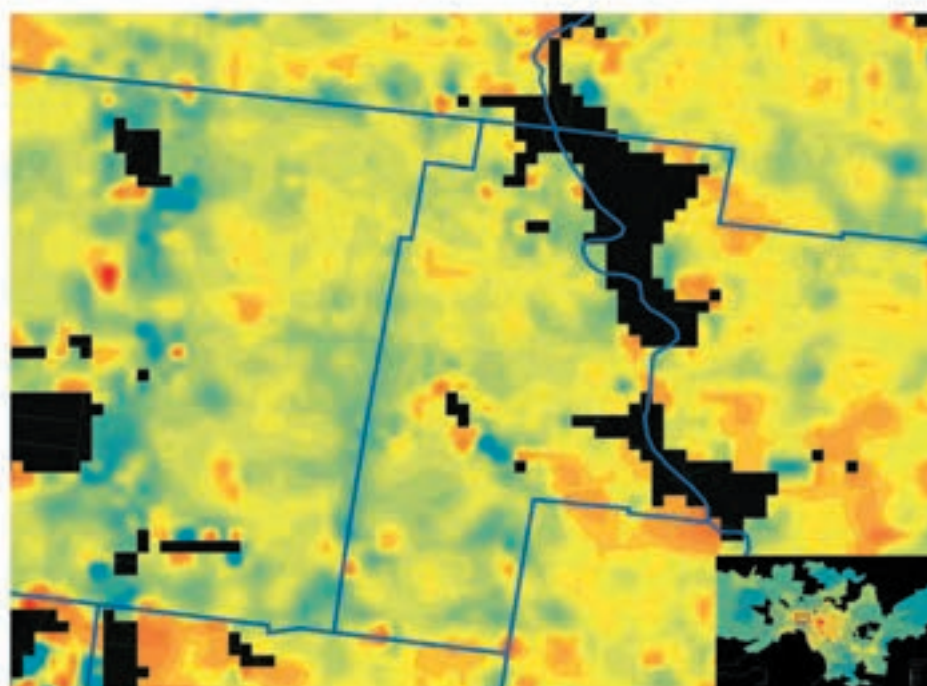
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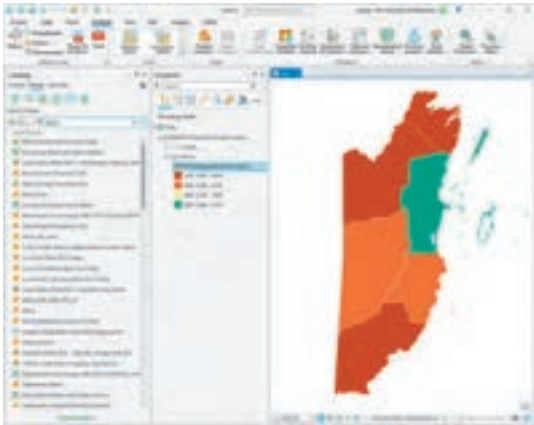
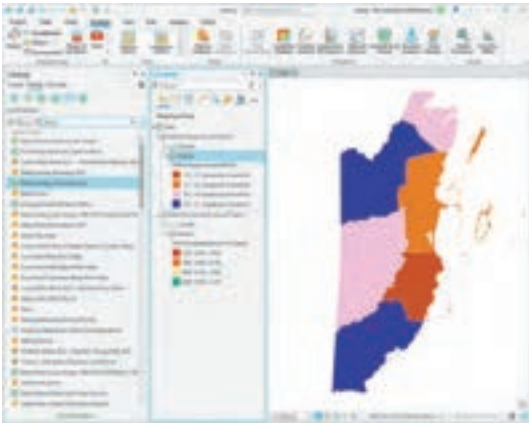
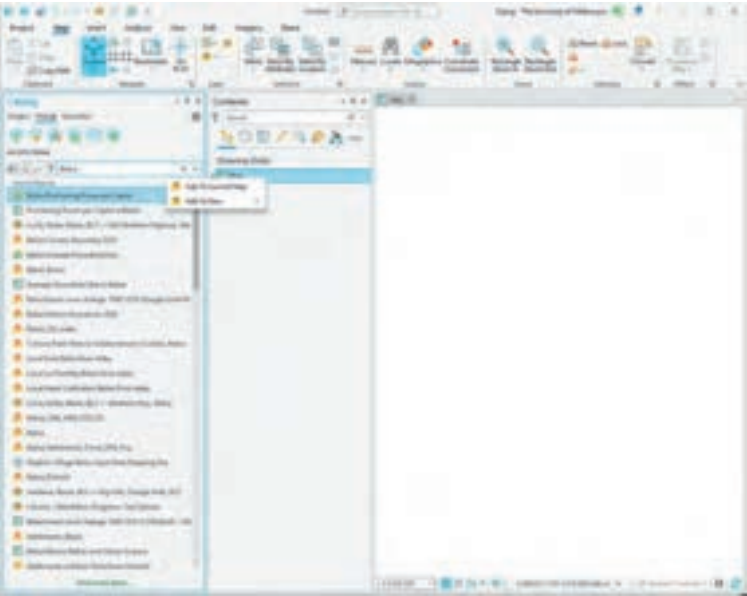
Abbreviation	Organization	Functions/ Services	History	URL
BPA	Belize Port Authority	Regulates and manages Belize's seaports, including monitoring vessel traffic and managing port infrastructure	BPA was established in 1991 under the Belize Port Authority Act.	http://www.portauthority.bz/
NBO	National Biodiversity Office	Coordinates and promotes conservation of Belize's biodiversity, using GIS to map and monitor ecosystems and species	NBO was established in 2002 under the auspices of the Ministry of Fisheries, Forestry, the Environment, and Sustainable Development.	https://www.biodiversity.bz/
DoF	Department of Fisheries	Manages and regulates Belize's fisheries resources, using GIS to map and monitor fish populations and fishing activity	The Department of Fisheries has been part of the Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development and Immigration since 2020.	https://fisheries.gov.bz/
BWS	Belize Water Services	Manages and provides water and wastewater services in Belize, using GIS to map and manage water infrastructure and resources	BWS was established in 2001 under the Water and Sewerage Act.	https://www.bws.bz/
TNC	The Nature Conservancy	Works to protect Belize's natural resources and biodiversity, using GIS to inform conservation strategies and prioritize conservation areas	TNC has been active in Belize since 1989, partnering with government agencies, NGOs, and local communities to achieve conservation goals.	https://www.nature.org/en-us/about-us/where-we-work/latin-america/belize/
HD	Hydrology Department	Monitors and manages Belize's water resources, using GIS to map and monitor water levels, quality, and usage	The Hydrology Department is part of the Ministry of Sustainable Development, Climate Change, and Disaster Risk Management.	https://hydrology.gov.bz/
TIDE	Toledo Institute for Development and Environment	Conservation, sustainable use of natural resources, education, and community development	Established in 1997 by a group of concerned Belizeans, international conservation organizations, and the Toledo Maya	https://tidebelize.org/

Private GIS Entities in Belize

Entity Name	Brief Introduction	Functions	Services	URL	Local/ International
Maya Island Air	Private airline that uses GIS technology to manage flight	Flight management	N/A	N/A	Local
Sistemas de Información Geográfica de Centroamérica (SIGCA)	Private GIS consulting firm that provides services throughout Central America	GIS consulting	GIS solutions for agriculture, forestry, and environmental management	https://www.sica.int/Iniciativas/sig_sica	International
Belize Geomatics	Private GIS company offering services in land and natural resource management, and urban planning	GIS consulting, mapping, surveying, and data analysis	GIS solutions for land and natural resource management, and urban planning	https://www.facebook.com/surveybelize/	Local
Dawson and Associates	Private consulting firm offering a range of services, including GIS consulting	GIS consulting, environmental services, engineering, and planning	Services for government agencies, NGOs, and private sector clients	https://www.dawsonassociates.com/	International
CARDNO	Private consulting firm offering a range of services, including GIS consulting	GIS consulting, engineering, and environmental services	Services for government agencies, NGOs, and private sector clients	https://www.cardno.com/	International

AURIN






Belize Purchasing Power per Capita

Overview Pricing Map Scene Help

Belize Purchasing Power per Capita Overview



This layer shows the purchasing power per capita in Belize in 2020, by Country and District. ArcGIS Online subscription required.

Map Image Layer from Esri
Managed by esri

Item created: Jun 26, 2021 Item updated: Jun 26, 2021 View count: 2,576

Authentic Living Atlas Premium

[Open in Map Viewer](#)

[Open in Scene Viewer](#)

[Open in ArcGIS Desktop](#)

Description

This layer shows the purchasing power per capita in Belize in 2020, in a multiscale map (Country and District). Nationally, the purchasing power per capita is **5,967 Belize Dollar**. Purchasing Power describes the disposable income (income without taxes and social security contributions, including received transfer payments) of a certain area's population. The figures are in Belize Dollar (BZD) per capita.

The pop-up is configured to show the following information at each geography level:

- Purchasing power per capita

The source of this data is [Michael Bauer Research](#). The vintage of the data is 2020.

Additional Esri Resources:

- [Esri Demographics](#)

Permitted use of this data is covered in the DATA section of the [Esri Master Agreement \(E204CW\)](#) and these [supplemental terms](#).

Details

Source: [Map Service](#)

Size: 1 KB

ID: 86df55bd2cf149c0866574414befe9e3


☆☆☆☆

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Share

[Share](#)

Owner

 Esri

Discussion

- No access for coastal erosion data
- Upcoming marine spatial plans release in 2027
- Coral sea grasses and benthic habitats updated in 2021
- Partnership between academic institution and government
- Need Staff and Funding
- Have publicly available data sets and write a written request for certain sensitive data sets
- One primary platform
- Coastal zone has very limited land use data and infrastructure
- Assist the Belize Port Authority
- Navigation charts need updating periodically
- Data quality issues
- Not a lot of data on local currents



PART 7

BASEMAPS



Sources: Esri, USGS, NOAA

Update of National Sustainable Tourism Master Plan of Belize

Basemap

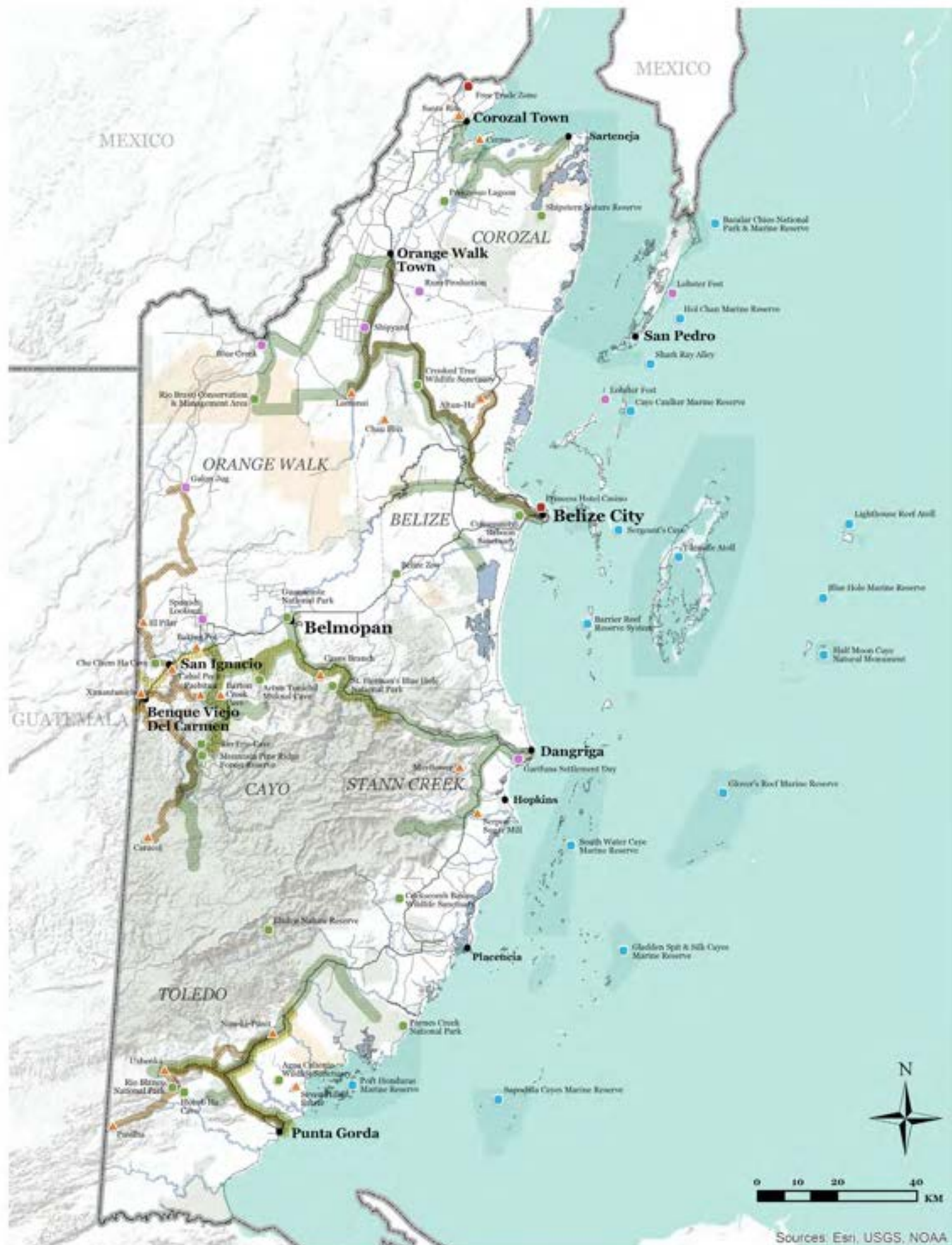


Legend

- International Boundary
- District Boundary
- Highway
- Distribution Road
- River

- City/Town/Village
- International Airport
- Public Airstrip

- Terrestrial Protected Area
- Marine Protected Area
- Private Protected Area
- Build-up Area
- Domestic Waterbodies



Update of National Sustainable Tourism Master Plan of Belize

Tourism Products



Legend

- International Boundary
- District Boundary
- Highway
- Distribution Road
- River

- Terrestrial Protected Area
- Marine Protected Area
- Private Protected Area
- Domestic Waterbodies
- City/Town/Village

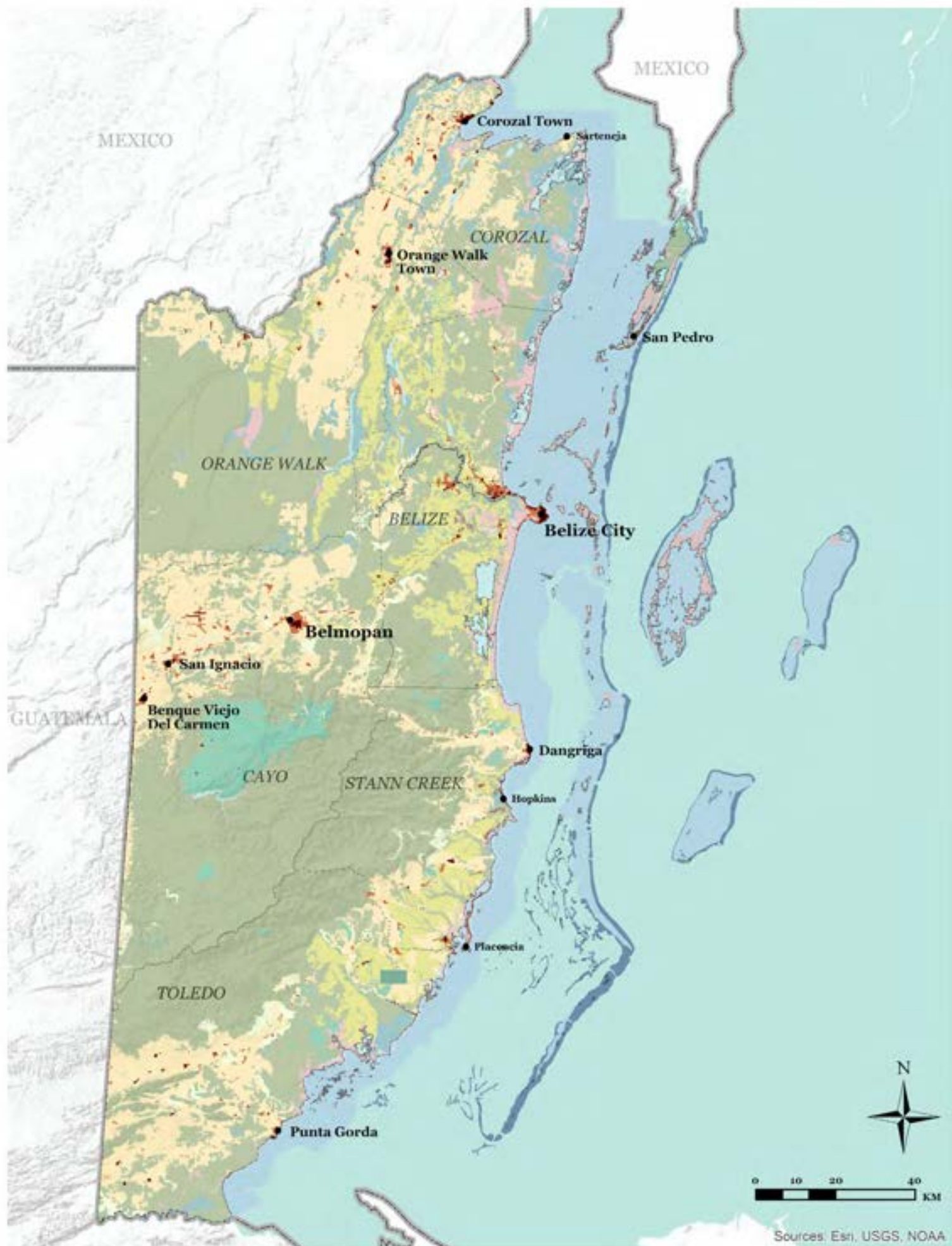
Tourism Product

- ▲ Archaeological Site
- Ecotourism - Land
- Ecotourism - Marine
- Living Culture
- Man-made

Trail

- Caves Route
- Maya Route
- Nature-based Route

Sources: Esri, USGS, NOAA



Sources: Esri, USGS, NOAA

Update of National Sustainable Tourism Master Plan of Belize

Landuse



Legend

- International Boundary
- District Boundary
- City/Town/Village
- Built-up Area in 2017
- Built-up Area in 1996

- Agriculture
- Pine Forest
- Broadleaf Forest
- Lowland Savanna
- Shrubland

- Seagrass
- Coral Reef
- Wetland
- Water
- Wasteland

- Mangrove & Littoral Forest

DATA SOURCE: Biodiversity and Environmental Resource Data System of Belize, Land Information Center of Belize



Update of National Sustainable Tourism Master Plan of Belize

Major Watersheds



Legend

International Boundary

District Boundary

City/Town/Village

Major River

Major Watershed

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APPENDIX

Update of the National Sustainable Tourism Master Plan (NSTMP)

Section 2 Diagnosis - Summary Report

by:

University of Melbourne



University of Belize



Hansen Partnership



Overview

This report reviews National Sustainable Tourism Master Plan documents, destination plans and other relevant documents with a brief overview of each document, its relevance to Belize as a destination, constraints & opportunities. A Miro Board is created to visualize the review: <https://miro.com/app/board/uXjVOwymGjw=/>

Project Name: Updating the National Sustainable Tourism Master Plan (NSTMP)

Submitted To: Belize Tourism Board - Attention: Abil Castaneda

Project Management: Miguel Usher, Praxi5 Advisory Group Ltd
Arnulfo Kantun, University of Belize

Team members: Dr/Prof Alexander Felson, Project Director, University of Melbourne, Architecture, Building and Planning, Climate Change Specialist and Landscape Architect
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Date submitted: June 16th, 2022

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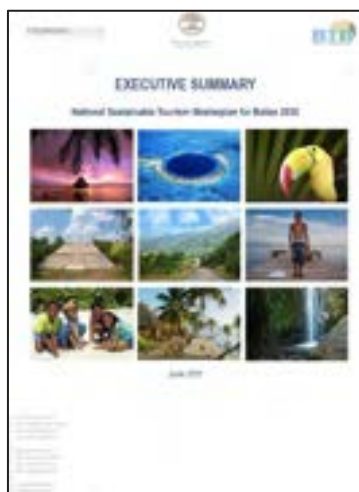
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Section 1 Review of National Sustainable Tourism Master Plan



1.1 NSTMP Executive Summary

The executive summary describes the Belize Tourism industry in 2011 and the vision and objectives for Belize tourism anticipated for 2030 as well as strategies and actions to reach these goals. The document provides an overview of the NSTMP structures and programs. It describes Belize's assets and lists constraints including: Poor land and air accessibility; scarce Belizean made products; a lack of sufficient and qualitative tourism services and facilities; a deficiency in communication and promotion of tourism assets; insufficient waste disposal and sewage systems; the need of integration of local communities into the Tourism Value Chain; a lack of urban land planning and land use regulation; a lack of public awareness programmes; and inadequate (natural & heritage)

asset management.

The plan describes 7 important destination areas with targeted improvements. These included: Belize City: Urban renovation; San Ignacio: Promote tourism growth; Placencia Peninsula: Contain development and consolidate; Stann Creek: New development; Ambergris Caye: Contain development and consolidate; Northern Belize: Promote tourism growth; southern Belize: Promote tourism growth; and Belize Reef: Contain development and consolidate. The Executive Summary also touches on the strategic approaches that must guide the implementation plan.

To ensure long term sustainability, it is recommended that mechanisms are put in place to assure long term political support for the NSTMP. This includes creating a coordination agency, creating a Council of Ministers and to lobby for an affidavit for every running prime minister to sign agreement of maintain master plan goals.

The document elaborates on implementation strategies across five (5) areas of focus (1) Tourism Governance; (2) Tourism Sustainability and Quality Assurance; (3) Tourism Infrastructures; (4) Tourism Marketing; (5) Tourism Product development.

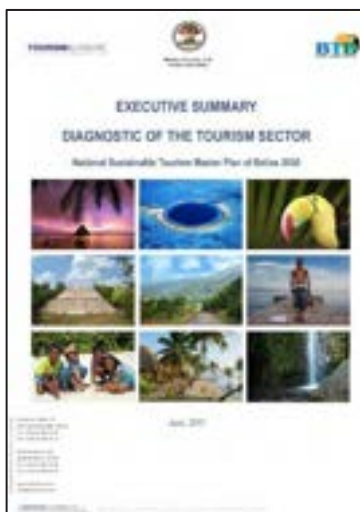
The document targets 5 strategies for moving forward. These include: (1) Product development (Optimization Goal); (2) Integrated destination development (Competitiveness & Sustainability Goal); (3) Experiential quality enhancement (Competitiveness Goal); (4) Empowerment of Stakeholders (Leadership & Optimization Goal); (5) Proactive solution to funding sources (Leadership & Sustainability Goal).

It provides a phasing approach and estimated preliminary budget calculation for program and project implementation. The document highlights two Key considerations to achieve a sustainable funding mechanism for the implementation of the NSTMP including further analysis on the current tourism sector taxation budgets, allocations and rates, as well as a search for short-term and medium-term funding sources while preparing a long term solution. The budget also highlights the potential for funding through other channels such as Government, Ministry of Tourism and Civil Aviation as well as BTB.

Issues contained in the report:

1. Research and evaluation of Belize tourism market from a demand point of view.

2. Identification and assessment of Belize's relevant tourism assets according to their attractiveness and market potential.
3. Analysis and evaluation of the tourism facilities and services, as well as the tourism industry operating in Belize.
4. Assessment of the main environmental and social issues of Belize specially which are affected by tourism.
5. Assessment of the institutional capacity and participatory governance in Belize.
6. Identification and exploration of the opportunities of the tourism industry in Belize.



1.2 National Sustainable Tourism Master plan for Belize 2030 – Executive Summary - Diagnostic of Tourism in Belize

Brief Description

This document addresses several important areas tied to the NSTMP. The report elaborates on Belize's tourism market research and evaluation through the lens of the level and types of demand. It also identifies and assesses Belize's relevant tourism assets, focusing on attractiveness and market potential. The report investigates and analyses available tourism facilities and services and critiques the tourism industry capacity and operations. The main environmental and social issues of Belize affected by tourism are assessed. The institutional capacity and participatory governance in Belize are discussed and evaluated

The report identifies and explores opportunities for the tourism industry in the future.

Organizational Instruments

The introduction of organizational instruments, such as the Belize Tourism Board (BTB) in terms of its responsibilities and duties, on general sector plans, programs, and policies, and on regulatory and financial instruments. The report assesses institutional capacity and participatory governance including public, private, and civil (social and NGO) groups. The proposal highlights sustainable tourism focused groups as the main partners to be considered in the Master Plan alongside certain core stakeholders to be considered (Ministry of Nature Resources and the Environment, Ministry of Agriculture and Fisheries, Ministry of Works, Belize Tourism Industry Association, Belize Audubon Society and Southern Environmental Association). It was noted that The Ministry of Tourism and BTB do not have the desired power of influence. In terms of governance, further assessment of the implications of key stakeholders is required such as the Ministry of Works and the Ministry of Natural Resource and the Environment. The document notes that the BTB is under-resourced and has limited responsibilities and capacity to manage. A lack of a networked model used as a lever to create a new solution and transform existing operations. The report includes a series of data assessments and projections. This includes the top 10 market arrivals, the type of tourist accommodations in Belize, the number of hotel rooms and occupancy rates in Belize, the average length of stay by category and origin, the means of transportation used by overnight visitors and the average expenditure per person per day. The tables are from either 2007 or 2008. In addition to this data, there were additional findings. The most popular attractions in Belize are the longest reef in the western hemisphere, the cayes, and the archaeological sites. Tourists to Belize highlighted value for money, transportation, entertainment, and restaurants as the tourist components in need of the most improvement.

Environmental Assessment

The environmental assessment of Belize's tourism revealed the most relevant gaps Belizean districts have including no sewage system, a lack of solid waste management and waste treatment facilities, a lack of overall planning and management and finally beach erosion. The report identifies Major environmental threats and considerations to be the cruise ship tourism impacts, the vulnerability to natural hazards and climate change, offshore petroleum exploration and other developments, and an increasing level of poverty and economic recession. Each location is evaluated from a waste management, beach erosion issue and, and other socio-cultural assessments.

Indicators

In the tourism destination and infrastructure analysis section, a series of indicators are identified through Competitiveness analysis (compared with Costa Rica, Guatemala, Nicaragua, Panama). Each set of indicator includes specific assessments tied to Belize. This includes regulatory and Institutional Indicators, business environment and infrastructure indicators, resource indicators and tourism commercialization indicators.

Maps

The report includes a series of maps. This includes maps of international air connections, road networks, and regular sea routes. It also includes a map of Belize tourism attractors and intensity of visits per type of asset in Belize. The map helps to convey visitation patterns spatially and geographically.

SWOT analysis

The report wraps up with a SWOT analysis focusing on tourism supply and governance and institutional capacity. This assessment provides a rich set of factors to be considered and re-evaluated.

- **Strengths:**

Tourism Supply: Attractive and varied cultural and natural resources; Belize hosts three unique tourism assets in heritage and ecotourism; Small size of Belize facilitating easy connections; Friendly people involved in the tourism industry; Belize as an English-speaking country; High social cohesion towards the tourism industry; The destination is not overdeveloped neither overcrowded; Peaceful democratic position offering stability and security.

Tourism Governance and Institutional Capacity: Comprehensive system for managing tourism; Large number of public entities, private sector associations and NGOs involved in tourism; Good involvement of certain stakeholders in the decision-making process; The Government of Belize offers specialized and effective incentives for investment.

- **Weaknesses:**

Tourism supply: Lack of preservation, use and management of the tourism assets; Most cultural heritage still remains covered and unexcavated; Relevant tourism assets lack tourism facilities and services; Lack of air connections to Europe, South-America and Canada; Low supply man-made attractors (leisure services); Expensive tourism destination where pricing do not match quality; Reduced cooperation among the fields of tourism activity; HR lack of technical skills and resistance to learn languages; Constraints on basic services provision and infrastructure; Lack of sustainability awareness; Presence of crime in some areas

Tourism governance and institutional capacity: BTB is under-resourced and has limited presence and responsibilities; Lack of legislation and infrastructure on crisis/disaster plan; Relevant decisions are being made without the input of the tourism sector; Lack of a proper tourism marketing plan for Belize; and Limited access to capital for investment.

- **Opportunities:**

Tourism supply: Wide range of tourism attractions addressed to a high variety of tourists; Belize hosts underutilized attractive natural and cultural resources; Great potential for developing and diversifying tourism products; Some areas have potential to grow up and develop in tourism volume; Belize can boost transport synergies with neighbouring

destinations; Opportunity to establish quality standards; and Opportunity to foster cross-border tourism initiative.

Tourism demand: Overall increase of overnight visitors and annual tourist expenditure.

Sustainability: Tourism industry must be seen as a vehicle for the alleviation of poverty.

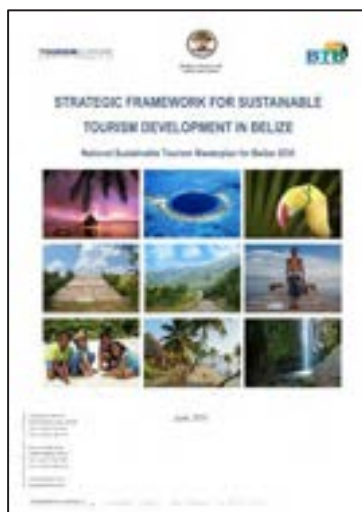
Tourism governance and institutional capacity: Great importance of available, accessible, and direct flights from top markets; and certain core stakeholders should be highly considered in the definition and implementation of Belize Tourism Policy.

- Threats:

Tourism supply: Cruise tourism might boost mass tourism to Belize depriving tourism visitor experience; Belize faces competition from tourism consolidated neighbouring countries; Global recession might affect tourism industry.

Tourism demand: Risk of mass tourism in certain tourism areas.

Sustainability: Risk of deterioration to some protected archaeological and natural sites; Threat of natural disasters that might impact to competitiveness and development; Vulnerability to climate change, and overall in coastal areas; Devastating impacts that oil spill could have on Belize's very sensitive marine ecosystem; The current economic situation poses even greater challenges in maintaining a healthy environmental and natural resource base.



1.3 National Sustainable Tourism Master plan for Belize 2030 – Strategic Framework for Sustainable Tourism Development in Belize

Brief Description

This strategic framework identifies the key elements needed to realize the defined vision of tourism in 2030: The development of mid-high quality tourism facilities; enhance the image of Belize as a tourism destination; stimulate the demand of a mid-high clientele; remain on an ecological friendly and sustainable path with low environmental and social impacts; prevent the degradation of natural and social aspects and/or assets.

Strategies for Sustainability

The report identifies three strategies to achieve sustainability: Defining product cluster programs; Focused and controlled development: Destinations in Belize would benefit much more through investment optimization, restricting them to specific sites; and a phased implementation program: set priorities for investment and define a clear phased program.

Assessments

The report includes a number of informative assessments. This includes a Development and density model of Belize's tourism destinations table including estimates for 2030 and data from 2008. Another diagram evaluates the prioritization of tourism destinations highlighting the importance of implementation against the urgency and ease of implementation. The report continues to focus on the six (6) tourism product conceptualizations: cultural, nature-based, sun & beach, cruise, nautical and leisure & entertainment. There is a market attractiveness & compensation 2010 chart that highlights 1st, 2nd, and 3rd priorities for development. The market strategy is based on attracting new tourism markets with the highest potential for Belize according to product consumption patterns. The report recognizes the US Market as having the highest competitiveness level and a very good attractiveness level. It notes that by 2030 the US Market should be a stable market and the most important market generating arrivals and large revenues. For regional markets it is determined that they do not require huge promotional and infrastructural investment, but they do need improvements in terms of connectivity and trans-boundary facilitation (regional visa, improved laws for land transportation from Guatemala/Mexico to stop in Belizean destinations; etc.); as well as regional aerial and nautical routes and services. By 2030 the Regional Markets will be a small market, focused to attract only regional visitors willing to spend mid to high-end holidays. The Canadian market has the highest level of attractiveness and the European Market is regarded as a market with a high potential. The main current international markets arriving to Belize have also been considered for market penetration. The aim for both would be to increase their tourism demand, as well as increasing their length of stay.

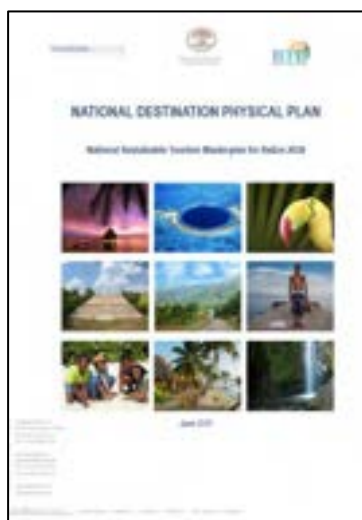
Strategy

The report goes on to review strategies to achieve competitiveness of tourism through commercial means. The primary strategy is to strengthen and promote Belize's national tourism vision by using the tourism products to stimulate interest and arrivals to the country. Creating and promoting an authentic blend of tourism products is recommended, conserving the country's natural surroundings and resources is another, and to promote

Belize as a sustainable tourism destination offering high quality products was a final component. There are additional strategies listed in the table.

In the section on Strategy to support leadership of the tourism sector: institutional strengthening and governance strategy, the report goes into distinct areas and explores specific actions. These areas include:

- Create Product Management: Units under BTB structure assigning a management team lead by a Product Development Director the responsibility to develop each of the core tourism products Belize would be selling to the source markets (nature tourism, culture tourism, cruise tourism, sun & beach tourism, nautical tourism, and leisure & entertainment tourism).
- Creating a National Tourism Trust Fund: to promote investment, growth and development in the tourism sector, encouraging better management of tourism resources, while supporting The National Sustainable Tourism Master Planning.
- Create Public-Private Partnerships (PPPs): to get the best results from tourism development, through promoting an integrated work approach and cooperation among the public and the private sector.
- Attraction of Foreign Direct Investment (FDI): to attract the international tourism investment community and hotel brands, to stimulate the economy and enhance the quality of the offering.
- Generate SME growth: Stimulate professionalization of the tourism service industry, boost local business tourism, and increase capacity skills development of the local workforce.
- Create TSA account: Improve statistical information reliability and relevance to support in strategic decision making.
- Create National security programs: Address national security issues that affect the tourism sector and hinder sustainable development.



1.4 National Sustainable Tourism Master plan for Belize 2030 – National Destination Physical Plan

Brief Description

Major tourism attractors that differentiate Belize from other Caribbean and Central American destinations are the generally unspoiled natural environment and cultural resources. This section aims to address the development of the tourism activities under a physical planning point of view. The main pillar and inspiration of this Master Plan is CONSERVATION-based on scientific terms. It develops the content and proposals for different scales ranging from country to seven regional destinations. Development models, tourism products and reference density are proposed with consideration of the context of each destination.

Objectives

The main objective of the planning process is to find a physical balance between conservation and development and to generate plans that support the growth of the tourism industry in Belize. In this case, development is tourism driven, and often at the interface between the natural and cultural resources of destinations and the development that brings people to experience those resources.

Tourism Products

The main tourism products are selected as strategic product concepts for the development of the country; they have been selected based on their competitiveness-importance-attractiveness from a long list of options. They are main tourism motivations that encompass many tourism activities under their product portfolio such as diving, sports fishing, caving, and temple hopping, among others. The product development concepts for Belize include (1) nature-based tourism product (2) cultural tourism product (3) sun & beach tourism product (4) cruise tourism product (5) nautical tourism product (6) leisure and entertainment product.

Model of Development in Belize

In general terms the plan tries to obtain a better balance developing all the tourism products according to the potentials of the different destinations.

- Growth for the Central Coast Belize is planned to be very closed to the national average as it already has a bigger offer in terms of quantity.
- Northern Belize is planned with a growth just over the average but for this destination it supposes a major growth since the number of visits is more limited at present.
- Western Belize is planned with a sustained growth targeting smaller facilities or eco-lodges with very low density and higher segments of the market.
- South Eastern Coast Belize has the biggest growth in the plan since the proposal is a new development on part of the coastline in order to focus the investments nationwide and allow conservation of the other destination within the country and Placencia Peninsula just to the south.
- Southern Belize is planned with a very big growth in terms of the growth ratio. In this case the ratio is not a good indicator since the current number of rooms is extremely low compared to the other destinations and the size of Punta Gorda.

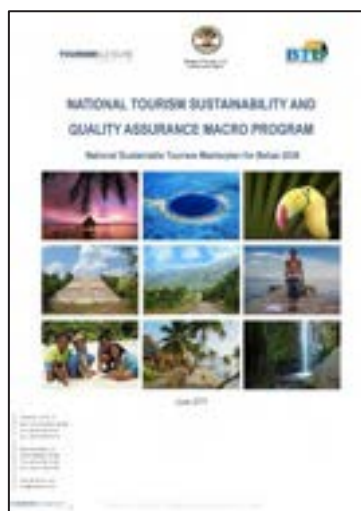
- For Northern Islands the growth ratio is below the average since Ambergris Caye is at the limit of carrying capacity and there is a big number of empty compounds and unfinished constructions that should be reconverted according to the needs.
- Belize Reef is slightly below the average but in this case again the quantity of room at present is very low.

Opportunities and Constraints

The document provides a series of proposals with different levels of information and scales to address tourism development and conserve tourism assets. The establishment of development models contribute to a better balance of tourism development across different destinations. Based on this document, there are some suggestions in relation to the update of the National Sustainable Tourism Master Plan:

1. Consider the use of GIS-based spatial analysis in the tourism planning process, e.g., measurement the service area of each tourism project.
2. Consider the inclusion of vulnerability analysis or climate change/environmental threats in Belize.
3. Spatial concepts could be more focused on conservation rather than development.
4. The goals, outcomes and strategies for each destination could be elaborated. A SWOT (Strength, Weakness, Opportunities and Treats) matrix for the country and each destination might help determine the best strategy.
5. Consider the introduction of a new 'remoteness index' as part of the suite of considerations. Visitors are increasingly paying more for unique remote experiences.
6. World Heritage significance designation (natural) of Belize Reef & Island is notable. Consider the elevation of further sites such as culture sites Caracol.
7. Contemplate a tourism-environmental 'net gain' evaluation. Permit growth in designated locations (i.e. Belize City) as compensation for relief and protection in others (e.g. islands/coastal).

1.5 National Sustainable Tourism Master plan for Belize 2030



1.5.1 National Sustainable Tourism Master plan for Belize 2030 – National Tourism Sustainability and Quality Assurance Macro Program

Brief Description

The Sustainability and Quality Assurance Macro Program comprises of three programs directed at raising the quality standards of the tourism service offering in order to reach international market demand standards and assure sustainable development of Belize's tourism economic offerings.

The three programs are as follows:

Standards & Quality Management – The standards and quality management section aim to raise the bar in minimum standards of tourism service delivery by increasing tour guide and tour operator licensing minimum requirements as a short-term goal. In a second phase, and a long-term approach, raising quality standards by instituting an Integrated Tourism Quality Management system where all stakeholders participate in continuous quality improvements to the sector.

Training & Capacity Development - The training and capacity building program responds to the need of professionalizing the tourism human resources by addressing the quality of training and degree programs available in Belize. As a means of a long-term solutions, it envisions the creation of a Hospitality Polytechnic Institute as a center of excellence for tourism hospitality training and tourism sustainable development research.

Sustainable Tourism Development – The sustainable development program provides the framework that will ensure the NSTMP maintains a balance of three pillars of sustainable development: social accountability, environmental conservation, and economic prosperity. The program proposes mechanisms to address resource management and appropriate land use allocation while maintaining social and environmental safeguards and finding pro-poor mechanisms to link vulnerable groups to the tourism economic value chain.

For all these programmes, subprogrammes were listed. The overall aim was a coordinated effort to achieve all objectives by Year 2030, to coincide with the end of Belize's long term planning document Horizon 2030.

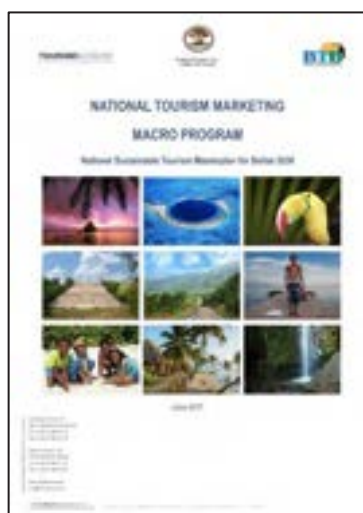
The document identifies the many and varied challenges involved in enhancing the quality standards of local tourism. What is noteworthy about this document is that benchmarks, notably in vocational training, were cited with a greater number of countries, three of which – Jamaica, Barbados and Trinidad & Tobago share greater levels of similarity with Belize in terms of our tourism product offerings.

Opportunities and Constraints

It appears though that a notable shortcoming was the failure to include GOB's frontline services as prime candidates for quality assurance upgrades. With specific regards to tourism, GOB's frontline services include the Immigration, Customs and Police departments, possibly even the BDF, since they guard major tourism attractions near national border areas.

Perhaps the lack of inclusion of these GOB departments was by virtue of their being GOB financed, it becomes incumbent upon GOB to continually improve its own departments.

If this was the thought process, it ought to have been stated clearly in the document. Any quality assurance macro plan that envisages quality enhancements among all sectors and including all stakeholders in Belize's tourism industry must include GOB's tourism frontline employees.



1.5.2 National Sustainable Tourism Master plan for Belize 2030 – National Tourism Marketing Macro Program

Brief Description

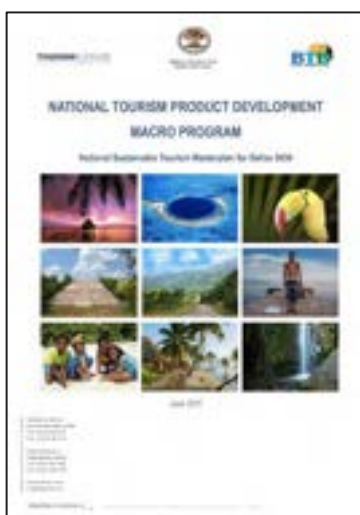
The marketing development macro programme focuses on the different promotion and communication efforts aimed towards the local and international markets. The specified action areas are divided into three distinct programmes: (1) Strategic Marketing, (2) Tourism Marketing Network, and (3) Operational Marketing. For all these programmes, subprogrammes were listed. The overall aim was a coordinated effort to achieve all objectives by Year 2030, to coincide with the end of Belize's long term planning document Horizon 2030.

Highlights

The quality of this master plan document is commendable given that Belize is an emerging tourism destination that is relatively small and continues to develop, with limited assessment. Belize must continue to document its growth to inform its planning with enough detail to facilitate verifiable indicators, while simultaneously remaining sufficiently flexible and organized to support successive administrations and different stakeholders as they tweak and update the tourism industry. The document identifies the need for marketing intelligence management, tourism positioning management, tourism awareness development, and marketing with new technologies. The master plan made similar commendable efforts to identify strategic partners and potential funding sources.

Opportunities and Constraints

1. In developing the proposed budget for the programme, though, benchmarks were cited with only two countries, the Dominican Republic and Ecuador. This is a weakness in the document since comparative data ought to have been sourced from countries that are more aligned to Belize's tourism product offerings.
2. Another flaw may be that given that expenditure for tourism marketing will always be limited, some objective measure must be explored which would seek to quantify optimal returns per dollar spent. Economists refer to this as elasticity and the aim would be objectively calculate which of the various means of promotion and communication efforts would yield the greatest return.



1.5.3 National Sustainable Tourism Master plan for Belize 2030 – National Tourism Product Development Macro Program

Brief Description

This document is to be regarded as the overarching document which seeks to guide Belize's tourism development for the foreseeable future. It is comprised of six (6) programmes, one for each of the selected tourism products/services to develop in Belize. These are:

- Program for Cultural Tourism Development
- Program for Nature-Based Tourism Development
- Program for Sun and Beach Tourism Development
- Program for Cruise Tourism Development
- Program for Nautical Tourism Development
- Program for Leisure and Entertainment Tourism Development

Objectives of The Programmes

To consolidate the tourism product clusters in terms of:

- adequate infrastructure support for each tourism product specificities;
- competitive tourism services and products, keeping the added value for the entire country as a destination;
- high quality at facilities, services and experiences for the visitors according to each product-segment requirements and expectations;
- focused commercialization on the product main channels;
- integral security for visitors and residents;
- sustainable development to guarantee product attractiveness and benefits in the future;
- attain a management framework that sustains product concept development over time.

Sub/programs Descriptions

All programs are focused to one specific tourism product of Belize. They all are composed of the same sub/programs, and their overall description is as follows:

- **Infrastructure & Accessibility:** These refer to the area where the product is operated, the inner support infrastructure to assure the product operation; and in some cases, any very specific infrastructure which constitute part of the product itself (such as adventure trail, Maya trail, etc.).
- **Business & Product Development:** Projects here are oriented to develop destinations or business directly related to the tourism product. They intend to be the core projects to appeal to the visitors.
- **Capacity Building:** While the general tourism plan for Belize deals with broad issues of the building capacity for tourism in the country, these sub-programs are specifically addressed to cover the product cluster needs to operate with minimum quality guarantees.
- **Marketing & Awareness:** Through the national wide marketing activities, this program is focused to ensure some minimum operational marketing activities in order to reach the target segments of markets. They also include in some cases, the Project of Branding Products, with the main goal of raising quality offerings with clear positioning (i.e. Belize Culture Tourism Brands).

- **Safety and Security:** These sub-programs include integral guidelines for the product development and operations, aiming to complete the first step to enforce them as regulations; awareness processes for stakeholders related to each specific product, in order to increase their participation and commitment with quality deliverance of their services; and finally a project related to rescue and response, focused for the kind of possible problems that a product operation could face.
- **Sustainability:** The main basis for sustainability is to settle land use for tourism and in tourism destinations. This principle is also present in this sub-program where every product has its own specificities that have to be considered for product location planning. Also includes the identification, assessment, and monitoring of specific safeguards for the product's development. Finally, this sub-program has inclusion mechanisms to be developed at every product development phase in order to enhance local community benefits and support local tourism related initiatives.
- **Governance:** The focus is on specific regulations for the activity, on investment and fund raising to foster economic initiatives around the products, and on the specific public-private partnerships frameworks required to create some tourism products with their specificities.

Phased Development

The master plan recognizes that tourism development cannot proceed evenly simultaneously across the entire country and as such there is a need for specific destinations to be prioritized in a phased process. First priority is accorded to western Belize, then the south eastern coast, then central coast, northern islands, southern Belize, northern Belize, and then the Barrier Reef.

Opportunities and Constraints

For a long-term national development macro document, there is a need greater degree of flexibility to deal with changing on the ground circumstances. It would also be a positive if there was a SWOT analysis for each of the six programmes and those feed into an overall SWOT analysis for the entire document.



1.5.3 National Sustainable Tourism Master plan for Belize 2030 – Project Implementation Manual

Brief Description

The project Implementation Manual describes basic project management, institutional responsibilities and key stakeholders, budget considerations, priority investment projects, results frameworks and risk management. Each of these topics plays an important role in ensuring an effective Master planning approach and outcomes.

Leadership

The report describes three levels of entities to lead the implementation of the NSTMP programs including the coordination office, the implementation institutions and agencies and the strategic partners. The responsibilities of implementation and control as well as the daily management of the project macro-programs would be centralized by a unique Coordination Office. This would ensure consistency of implementation and interpretation across all implementation agencies. The office could promote strategic partnership and proactively search for funding source. It could consolidate monitoring and evaluation reporting. The office could be housed under the MTCAC which coordinates the actions of the implementation agencies and the strategic partners as well as monitors and evaluates the implementation progress. The implementation institutions and agencies could take in charge specific programs of the master plan and coordinate across the concerned entities to achieve the objectives of the programs. This level would relay feedback on the programs in progress and relevant information to the improvement of the master plan and the sector development to the MTCAC. The strategic partners would support and help the implementation of the projects by applying their specific competencies. They would communicate the aims of the projects to the tourism companies, facilities, and the public. They could also finance part of the projects according to their nature. Recommendations are made for which agencies or groups would fit the roles.

In addition to forming the Coordination office, the immediate tasks of the MTCAC following the completion and socialization of the NSTMP would be to prepare a detailed Project Implementation Manual and work plan, mobilize implementers and strategic stakeholders, secure allocation of Ministerial Budgets to NSTMP support and promote policy dialogue.

Stakeholders

The report identifies the stakeholder involved on a policy and executive level of each Macro Program's implementation. This includes Governance, sustainability and quality assurance, infrastructure, marketing, and product development. The policy level leadership highlights institutions that will oversee facilitating the enabling environment of the program implementation, that is they will and assure the required resources support and policy reform. The executive level leaders are the implementing institutions or those agencies that take an important role in the implementation of the programs.

Sustainable Funding Scheme

The report identifies key considerations to achieve a sustainable funding scheme for the implementation of the NSTMP. First, there is an urgent need to further analyze the current tourism sector taxation rates, budgets, and allocations to devise if additional taxes or

reallocation of budget is a viable mechanism for funding the NSTMP projects. There is also a need to search for short-term and medium-term funding sources while preparing a long-term solution. The coordination office will be responsible for analyzing funding sources and mechanisms and assuring long term sustainable funding allocation.

The report highlights preliminary identification of possible funding solutions including, short-term: BTB 2012 budget planning, short- to mid-term ministerial budget allocation; mid-term multilateral and donor agencies, mid- to long-term partnership schemes with private sector and the long term National Sustainable Tourism Trust Fund.

Investment Projects

For identifying priority investment projects, the report highlights priority criteria, including the importance of the project and the potential impact of increasing tourism intensity. The ease of implementation as well as an existing or obtainable investment is essential. The basic urgency of the project and the level of dependency of other projects for the completion of the project in question is essential review. The timeline, as provided in the NSTMP, should guide the project.

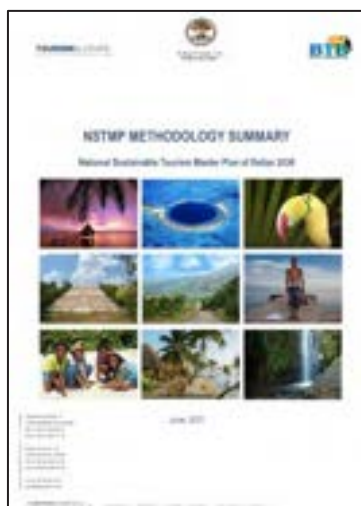
Five priority investment projects are referenced including the Road to Caracol, the Belize City waterfront experience and cruise hub development, the Anthropology Museum, the Riversdale International Airport, and the Hospitality and Training Center. In addition, the report addresses 10 conceptualized investment opportunities to support the product development approach of the NSTMP. These include inland ecolodge, diving lodge, fishing lodge, beach boutique hotel, beach resort, cruise terminal, marina mix development, flagship urban hotel, shopping and entertainment zone, and private island development.

Indicators

The report highlights a set of indicators as tools to measure the evolution and development of the tourism sector in Belize. The indicators including general strategic ones, sustainability and quality assurance, infrastructure, tourism marketing macro programs, tourism product development macro programs. This includes the indicators, baseline, target value, and data collection and reporting. The strategic indicators evaluate the general tourism level in the country. Strategic indicators are guidelines to adapt the tourism strategy in order to achieve the aims set by the sustainable tourism master plan of Belize. The operational indicators measure aspects of the tourism development. The operational indicators illustrate the stage of the main projects implemented in the different macro-programs. They are monitoring the implementation of the sustainable tourism master plan.

Potential Risks

Finally, the report evaluates the potential risks, and its potential rating of occurring (Rating: N-Negligible Risk; L-Low Risk; M-Medium Risk; S-Substantial Risk; H-High Risk) and distinctive mitigation measures.



1.5.4 National Sustainable Tourism Master plan for Belize 2030 – NSTMP Methodology Summary

Brief Description

The NSTMP Methodology Summary Report summarizes the methodologies used in the different phases of Belize's National Sustainable Tourism Master Plan. It is divided into three different parts which correspond to the deliverables: Methodologies of the (1) Diagnostics, (2) Strategy, (3) and NSTMP. The report highlights specific data collection tools and analyses undertaken that justify the recommendations and suggestions presented by T&L.

Methodology of the Diagnostics

Specific methodological tools being recommended include the UNWTO Factors, Attractors and Supports (FAS) Methodology applied to assess tourism attractors. The Tourism value chain methodology, which has been done mostly through available secondary information of the number of operators per type of activity, number of employees and qualitative inputs about the type and characteristics of the tourism facilities in Belize. The Tourism market research study assesses the tourism market demand. Finally, the governance and institutional assessment is based on the analysis of the roles, management and interests of the tourism stakeholders. Meetings and interviews with public entities, private organizations and civil society institutions were used for this task. Two matrixes have been used to determine results on that subject: Mapping of stakeholders and Participatory Governance assessment.

Methodology of the Strategy

The methodology tools and the way they were implemented include a vision statement for 2030 combines workshops results, national stakeholder workshop consultation, international tour operator survey and T&L's expertise. It also includes strategic objectives for 2030 and strategies are based on the identified opportunities, strength, weaknesses and threats in the diagnostic research, T&L's expertise and national stakeholder consultation. Based on the strength and weaknesses identified during the diagnostic phase, and in line with the premises mentioned above, T&L identified four strategic objectives (a), namely: leadership, optimization, sustainability and competitiveness. In order to reach those objectives, the following strategies were suggested to Belize's tourism stakeholders. The Tourism product conceptualization used a tourism product identification based on diagnostic research, research on global tourism product trends, national stakeholder consultation, international tour operator survey, international tour operator product/tour analysis, international organizations, international guidebooks, and brochures.

Tourism product role analysis: The analysis undertaken by using the competitiveness-attractiveness Matrix (b), which ranked different criteria e.g. global growth trends, generation of revenues, etc. and identified which role which product should undertake. The tourism destination strategy: Tourism destination identification based on diagnostic research, national stakeholder consultation and T&L expertise, and calculated development projections. The tourism product strategy (C) uses T&L expertise, calculated development projections and national tourism stakeholder consultation and validation at workshops. The destination and product prioritization strategies were undertaken by using the Importance-

Ease of Implementation-Matrix (d) for each destination and tourism product. The outcome is a cross-matrix indicating which products have to be developed first and in which destination. The market development and commercial strategy is based on the diagnostic research, global trends and calculated development projections. The prioritization of the markets is calculated by using the industry attractiveness analysis and combining market attractiveness and competitiveness (e), to identify the individual strategies per market. The commercial strategy identifies which markets and segment should be targeted and for which destination and/or tourism product. It therefore outlines the basis for the promotional strategy. The promotional strategy is based on the commercial strategy and source market profiles, travel behavior and booking methods. The promotional strategies will identify through which promotion and distribution channel a market or a segment is to be targeted. The governance and institutional strategy combines secondary sources research, stakeholder consultation at individual meetings and workshops, international trends and best practices—in addition to T&L expertise.

The report includes a series of diagrams and tables that address the competitiveness-attractiveness matrix. It also notes that the most important destinations to be developed are South East Coast Belize and Western Belize followed by Southern Belize.

Methodology of NSTMP

The purposes of structure of the master plan are to provide four umbrella macro programs (governance, sustainability and quality assurance, infrastructures, marketing) and one integral macro program (consisting of six tourism product programs) including transversal development projects. This structure will assure (even in case of reduced financing resources) the development of the tourism products and its specifics required in terms of governance, sustainability, quality assurance, infrastructure, and marketing; develop and deliver manuals for specific development leaders and implementers. E.g. the macro program for tourism marketing should be implemented and lead by BTB, the product development macro program by BTB's product managers, and the tourism governance macro program should be implemented by MTCAC in cooperation with BTB. Assure tourism sustainable development by including and partnering with different institutions and executors to implement and secure stakeholders support to develop programs and projects.

Each sub-program consists of a determined budget, starting date and realization time-line, concrete stakeholders that should participate in the implementation, destinations for concrete development of which's methodological background is: The realization time-line and the budgets were identified using T&Ls expertise and international benchmarks on expected costs and budgeting; The starting date takes into consideration the product development prioritization on a national level and on a destination level; Lead stakeholders and strategic partners for each sub-program were identified according to T&L's individual stakeholder meeting and expertise; The destinations where the sub-programs should be implemented were identified based on the destination's characteristic, needs and requirements to develop a sustainable tourism growth; Tourism overnight and accommodation development model, Furthermore, the NSTMP suggests a tourism accommodation development scenario that will host a total of 5,895,376 overnights in 13,748 rooms by 2030 with a maximum occupancy rate of 52% to 65% by destination [based on the statistical information provided by VEMS (2009) on the overnights, the average occupancy rate and the amount of room available], then this section introduces how T&L's suggested annual growth rates for Belize from 2010 to 2030 was defined.

Methodology of land use framework

The methodology of land use framework focused on density and growth development by destination. During the workshops, the participants were asked to rate the level of building

density and tourism development they would suggest for different areas within the tourism destinations. Based on these two scales (density and tourism development), the participants were able to provide valuable thoughts and recommendations for each destination.



1.6 NSTMP Specific Destination Disaster Risk Plan

The Diagnostic of Tourism in Belize report provides an overview of the destination development plans. These include specific development plans for Belize City, San Ignacio, Placencia Peninsula, Stann Creek, and Ambergris Caye.

These plans include specific analysis that summarizes the diagnostics of the ecosystems, and physical aspects of tourism development constraints and opportunities. The specific tourism development objectives are outlined. Specific strategic development scenarios of growth are defined. The application of the land use model that regulates the nature and typology of the tourism development per specific area were utilized. Specific priority investment and action areas are further defined as components of the already defined projects under the NSTMP Macro-programs. Graphic representations of diagnostic analysis, specific development plans, land use model and ecosystems are included.

The report also discusses the special purpose plans that are prepared to preserve and enhance the existing character of the destination and to clarify the strategies for the Specific Development Areas. Complementary diagrams or schemas were proposed for Placencia Village and San Pedro. This includes the Placencia Disaster Risk Management Plan focusing on a risk profile and disaster management topics including building codes and disaster management; disaster risk management business planning and licensing; and Placencia tourism disaster management committee.

The report goes into detail for the areas where specific development plans have been developed. These are reviewed separately in the development plans. Below we provide a brief summary of specific objectives for each location. Each report goes into key investments & actions as well as urban investments and conservations with a list of milestones.

Belize City

Specific objectives including renovating the existing fabric by promoting specific urban projects at a city scale on empty plots or brownfields or by replacing existing buildings and facilities not in use or underused. Restore colonial heritage city experiences. Capture the potential of the cruise tourism that enters through the city through new demand driving facilities. Increase the quality of the public space and the signage to encourage tourist strolling and discovery. Plan and organize the transportation, traffic and pedestrian flows on the central area defining selected streets as pedestrian only or mainly pedestrian. Capture the potential of nautical cruise tourism. Promote a new centrality and develop a waterfront renovation that functions as a public-promenade to enhance quality of life of residents as well as a wall defense that protects Belize City from sea and river flooding and a drainage system for excess rainwater. It is noted that in 2020 the proposal is to start operating from a new cruise terminal at Port Loyola. This would improve accessibility and bus staging throughout national destinations outside Belize City reducing traffic at city center. At the same time would help the renovation of the waterfront, especially the stretch from Bird's Isle down to the port area and also the management of the selling of tours and packages to cruisers.

San Ignacio Town

Specific objectives include maintaining the scale of streets and buildings while renovating the charming village appeal, developing the town as a destination for the trade area and visitors to the region, re-organizing vehicular and pedestrian circulation to reduce conflicts and enhance the pedestrian realm, organizing and improving public spaces to improve urban function, and, to enhance tourism offerings such as restaurants, special events and tour operation to surrounding area, and improving river front as a park amenity for the city, for special events and as a location for river tours. The goal is to develop San Ignacio as a vibrant, interior town that serves tourists as an attraction, as well as a base camp for visits to the surrounding antiquities and natural areas.

Placencia Peninsula

Specific objectives include instituting clear standards and policies for conservation of the upland natural environment to guide the scale and impact of development, maintaining local character of village, monitoring and protecting the sustainability of the environmental ecosystem, further enhancing the tourism product development offering along the lines of the strategies defined in the NSTMP (S&B, Nautical, cultural, nature). The proposal is chiefly to consolidate and complete the existing compounds and resorts and allocate space for a small growth to complete strategic empty space to link existing uses or in places that have been previously disturbed.

Stann Creek

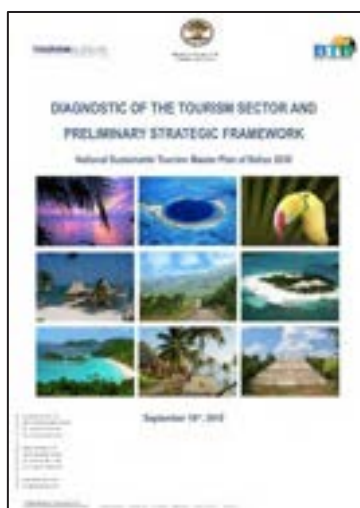
Specific objectives of this proposal including creating amid-density new development for sun & beach destination development north from Riversdale and the Maya King river up to the Sapodilla lagoon to help preserve the Placencia peninsula, generating new attractions developing the small pocket cruises segment in opposition to the conventional cruise size and the development of complementary tourism products such as nautical, cultural and nature tourism. The proposal seeks to develop an intensity development zone with low and mid density sun & beach hotels and resorts. The goal is also to release the pressure from other areas (such as Placencia Peninsula), distribute the wealth of tourism development, and diversify the offering.

Ambergris Caye

The specific objectives of this Development plan are to limit development of medium and high intensity to current settled areas while promoting very low impact, but very high quality development in existing natural areas, recovering and maintaining characteristic local village flair “La Isla Bonita”, reclaiming beach front for sun & beach activities and reduce and consolidate pier structures and safeguarding the sustainability of the marine ecosystem. Ambergris Caye’s urban areas need to be addressed in terms of urban redevelopment with consolidated attractions and help improve the standards of the existing resorts and hotels. Public space and mobility issues need to be adjusted.

Placencia Village

The Specific objectives of this special purpose plan are to develop a specific plan and regulatory frame to maintain the character that makes it an attraction, finish the new developments under construction, promote the access and improve the quality of the beach area on the reef side, and revitalize village center.



1.7 Phase 1 Diagnostic of Tourism in Belize

This report focuses on several issues including research and evaluation of Belize tourism market from a demand point of view, the identification and assessment of Belize's relevant tourism assets according to their attractiveness and market potential, the analysis and evaluation of the tourism facilities and services, as well as the tourism industry operating in Belize. The report also focuses on an assessment of the main environmental issues of Belize specially which are affected by tourism and the assessment of the institutional capacity and participatory governance in Belize. It also addresses the identification and evaluation of best practices through complete benchmark analysis of tourism destinations and tourism master plans and the identification and exploration of the opportunities of the tourism industry in Belize.

The report goes into extensive detail, focusing on a tourism supply analysis, identifying relevant tourism assets classified according to the typology of tourism applicable in Belize and following the UNWTO FAS methodology applied to assess tourism elements. The report highlights that Belize hosts three "unique tourism assets" with international recognition attracting tourists by themselves. These assets are the Barrier Reef Reserve System, the Blue Hole Marine Reserve and the Caracol Maya site. It notes the high level of attractiveness of these sites, compromised by the issue of accessibility. It notes that Belize excels particularly in eco-tourism sites both marine reserves and national parks including wildlife, caves, and forest reserves. Maya sites are particularly relevant in Belize with the Caracol Maya site as the most iconic of this typology of assets. The type of assets vary steadily according to the location leading to a great variety of tourism attractiveness in the Country. Some living culture assets in Belize have also a high level of attractiveness. In terms of the origin of visitors, 86% of the visitors to the tourism assets assessed on this analysis are foreigners and the remaining 14% are Belizeans.

The report goes into detail regarding the destination structure and product offering analysis for cultural tourism, ecotourism and nature tourism, adventure tourism, and cruise tourism. It studies through spatial analysis the destination structure and infrastructure and transportation conditions. It analyses the tourism facilities and services and develops a tourism demand analysis. The report also analyses sustainable tourism issues including environmental assessments per district. There are useful spatial mapping analysis of these areas. The report also highlights that Belize's national environmental policies are based on an integrated environmental management approach towards sustainable development. The legislation and regulations are comprehensive in nature and address issues of environmental protection, natural resource development, wildlife conservation, preservation of historic and cultural resources, and solid waste management. Belize is also a signatory to various international agreements aimed at protecting the environment and natural resources.

Finally, the report develops a tourism governance and policy analysis. The analysis of governance begins by assessing the institutional capacity of stakeholders as a key tool for understanding the social and institutional context of a project or policy. Its findings can provide early and essential information about who will be affected by the project (positively or negatively), who could influence the project, which individuals, groups or agencies need to be involved in the project, and how, whose capacity needs to be built to enable them to participate, and the governance analysis provides a foundation and structure for the participatory planning, implementation, and monitoring that follows.

The report also develops a competitiveness and best practices. The analysis examines competitiveness of the tourism sector in Belize. By looking at the factors and policies that together serve as levers for improving a nation's tourism competitiveness, the report assesses the areas of strength and improvement for the tourism industry. Competitiveness as examined in this report is based on four broad categories of analysis: the regulatory framework, business environment & infrastructure, resources, and tourism commercialization. Each category is comprised of various sub-indexes, each with specific indicator variables that seek to break down Belize's competitiveness to better identify the areas of strength and those that need improvement.

Section 2 Review of Destination Plans



2.1 National Sustainable Tourism Master Plan Belize 2030 – Destination Specific Development Physical Planning

Brief Description

The document outlines the destination specific development plans for 5 designated Locations: Belize City, San Ignacio Town, Placencia Peninsula, Stann Creek, and Ambergris Caye. It comprises specific objectives, proposals, key investments and actions, implementation and costings. The document also includes special purpose plans and development guidelines for 2 Key Sites – Placencia Village and San Pedro. It set for development plans and recommendations for all locations with detailed mapping of constraints, opportunities, destinations plans, land use and ecosystems

Belize City

Specific objectives

The objective for Belize City is chiefly to renovate what it is already there bringing back to value all the existing attractors. At strategic spots new uses and centralities ought to be encouraged.

- Renovate the existing fabric by promoting specific urban projects at a city scale on empty plots or brownfields or by replacing existing buildings and facilities not in use or underused.
- Restore colonial heritage city experiences.
- Capture the potential of the cruise tourism that enters through the city through new demand driving facilities.
- Increase the quality of the public space and the signage to encourage tourist strolling and discovery.
- Plan and organize the transportation, traffic, and pedestrian flows on the central area. Defining if necessary, some streets as pedestrian only or mainly pedestrian.
- Capture the potential of nautical cruise tourism.

Proposals

- Redevelop cruise passenger/ferry landing area to more effectively receive visitors and improve and expand the experience.
- Redevelop the historic district and existing attractions.
- Promote a new centrality.
- Waterfront renovation.
- The waterfront should be designed as a multifunctional infrastructure capable of performing several functions simultaneously.

Key Observations & Issues

1. Determine coastal and related impacts of cruise passenger growth, determine limits.

2. Urban renovation/ infrastructure grounded in nature based and community benefit approach.
3. Incorporate climate change/sea level rise – storm/tidal surge vulnerability evaluation.

San Ignacio Town

Specific objectives

- Maintain the scale of streets and buildings while renovating the charming village appeal.
- Develop the town as a destination for the trade area and visitors to the region.
- Re-organize vehicular and pedestrian circulation to reduce conflict -enhance pedestrian realm.
- Organize and improve public spaces to improve urban function, and, to enhance tourism offerings such as restaurants, special events and tour operation to surrounding area.
- Improve river-front as park amenity for the city, for events and as a location for river tours.

Proposals

San Ignacio is to become a vibrant, interior town that serves tourists as an attraction in itself, as well as a base camp for visits to the surrounding antiquities and natural areas. The scale of the downtown area, and the historic character of much of the architecture will reinforce the attractiveness of the town for tourism. There will be a well-defined high street and central plaza, though the organization of pedestrian and vehicular traffic to avoid conflict. According to the existing and potential offer San Ignacio could become the Adventure Capital of Belize. Similarly, the redevelopment of the central plaza and surrounding circulation and activities will also add a venue for gathering and special events. There is a serious need for remediating the open and inadequate storm drainage system complicated by the (pleasantly) varied topography.

Key Observations & Issues

1. Determine riverine and riparian conditions/drainage management in township.
2. Urban renovation/ infrastructure grounded in nature based and community benefit approach.

Placencia Peninsula

Specific objectives

- Institute clear standards and policies for conservation of the upland natural environment to guide the scale and impact of development.
- Maintain local character of the village.
- Monitor and protect the sustainability of the environmental ecosystem.
- Further enhance the tourism product development offering along the lines of the strategies defined in the NSTMP (S&B, Nautical, cultural, nature).

Proposals

The proposal for Placencia Peninsula is chiefly to consolidate and complete the existing compounds and resorts and allocate space for a small growth to complete strategic empty space to link existing uses or in places that have been previously disturbed. 70% of the total growth goes to the north side of the Peninsula to complete ongoing projects (see map DS1). The other 30% is allocated on the south to complete the area of the resorts and few marina

resorts that are unfinished. On top of that it has been considered a reserve of 40 units each for Urban completion of Seine Bight, Placencia Village and the island south of the Peninsula. To preserve the in-between spaces a network of green areas is planned on the remaining mangroves areas. In terms of licensing and accommodation typologies, the priority, considering the model and analysis of needs within this destination, is to increase significantly the number of hotel rooms in the market. Some of this is already happening and is also planned in the north of the peninsula. As for the existing units unfinished or performing low returns the follow up and implementation of this master plan has to put in place active policies to convert condos and timeshares formulas into traditional hotel rooms.

Key Observations & Issues

1. Examine the implications of sea level rise and related climate impacts on peninsula (modelling).
2. Advance a curated 'cluster' approach to resort infill, to support emerging climate threats.
3. Priorities mangrove and related habitats and measure biodiversity markers in systems analysis.

Stann Creek

Specific objectives

- Create a mid-density new development for sun & beach destination development north from Riversdale and the Maya King River up to the Sapodilla lagoon to help preserve the Placencia peninsula.
- Generate new attractions developing the small pocket cruises segment in opposition to the conventional cruise size.
- Develop complementary tourism products such as Nautical, cultural and nature tourism.

Proposals

The proposal is to develop an intensity development zone with low and mid density sun & beach hotels and resorts. The goal is to release the pressure from other areas (such as Placencia Peninsula), distribute the wealth of tourism development and diversify the offering. The proposals also consider allowing and planning an expansion area around the urban areas of Dangriga and down south to the ongoing development on Commerce Bight area. The completion of the Hopkins urban area on previously disturbed sites before the mouth of Sittee river is also included on the agenda. A new tourism pole is envisioned north from Riversdale and around Maya King River, planned with enough critical mass so as to be sustainable in terms of the needed investments. Divided into at least four new nuclei with big green areas in between it will absorb 70% of the total expected room growth. The access can be done extending the road that leads to the airport and at the same time using the road that links to the west with the Southern Highway.

Key Observations & Issues

1. Examine the implications of sea level rise and related climate impacts on peninsula (modelling).
2. Advance a curated 'cluster' approach to resort infill, to support emerging climate threats.
3. Priorities mangrove and related habitats and measure biodiversity markers in systems analysis.

Ambergris Caye

Specific objectives

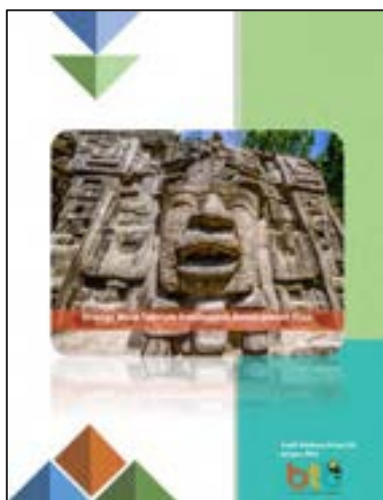
- Limit development of medium and high intensity to current settled areas while promoting very low impact, but very high-quality development in existing natural areas.
- Recover and maintain characteristic local village flair “La Isla Bonita”.
- Reclaim beach front for sun & beach activities and reduce and consolidate pier structures.
- Safeguard the sustainability of the marine ecosystem.

Proposals

- San Pedro urban area needs to be addressed in terms of urban redevelopment in order to consolidate all the attractions and help improve the standards of the existing resorts and hotels. Public space and mobility issues need to be adjusted.
- On the road north from San Pedro and on the other side of the bridge there are a lot of empty or unfinished apartment buildings. The proposal is to reconvert to tourism serviced facilities whenever possible and plan a small extension on two strategic locations off the road and towards the lagoon side.
- Once the road is finished, the north tip of the island is almost free from any building. On the north tip and after rocky point Bacalar Chico protected area starts. For this northern part of the island the strategy is conservation, and the proposal is to plan 3 low density hotel eco-resorts in previously disturbed areas. Regarding accessibility, the existing airstrip (next to the shrimp farm) could be brought back to function by the private sector.
- For the area south of San Pedro the strategy is to limit the expansion for tourism development, reduce and consolidate piers to one or two main piers to service all hotels and private owners.

Key Observations & Issues

1. Limited acknowledgement of vulnerability issues, sea level rise, tidal, drainage, salinity etc.
2. Examine the implications of sea level rise and related climate impacts on peninsula (modelling).
3. Advance clearer defensive climate mitigation measures, integrated with urban enhancements.



2.2 Orange Walk Tourism Destination Development Plan

Vision Statement

With a unique and authentic natural, living multi-cultural heritage tourism product, Orange Walk aims to offer its valued visitors an unforgettable experience delivered by friendly, and skilled people committed to responsible tourism practices that maximize local participation and benefits.

Strategic Thrusts/Goals

- Thrust 1: Orange Walk will develop diversified tourism products that cater to the overnight and cruise sectors to showcase the natural and cultural experiences that are most representative of what is unique to this destination.
- Thrust 2: Orange Walk will develop and implement a comprehensive branding and marketing plan to position and increase demand for the tourism product.
- Thrust 3: Orange Walk will ensure a properly trained tourism workforce to ensure the delivery of quality and unforgettable visitor experiences.

Appendix 4 – Map of Orange Walk Destination



Opportunities and Constraints

1. Potential for cultural and environmental ‘circuit’ approach linked to neighbouring districts.
2. Examine climate impacts on townships and key conservation areas and waterways (modelling).
3. Review of cultural sites and landscape context condition (durability, safety, interpretative info).



2.3 Dangriga Tourism Destination Development Plan

Vision Statement

Dangriga, a welcoming destination, offers our visitors the opportunity to immerse themselves in unique, authentic, and diverse eco-cultural tourism experiences in the living barrier reef, clean beaches, pristine rainforests, and Belizean culture rich in tradition and heritage.

Strategic Goals

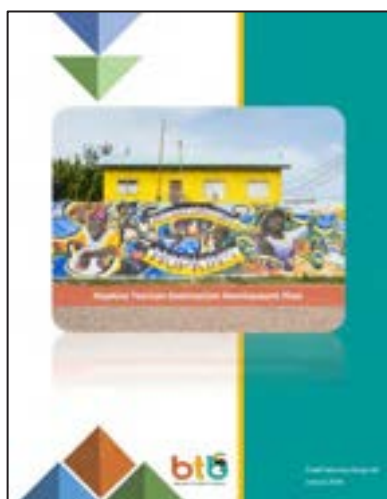
- Enhance community awareness.
- Enhance critical infrastructure that supports tourism.
- Develop Cultural Heritage and Cultural Attractions and Experiences.
- Diversity of marine and terrestrial-based attractions and experiences.
- Strengthen local capacity to provide tourism services.
- Create a destination brand for Dangriga.

Appendix 5 – Map of Southeast Coast Destination



Opportunities and Constraints

1. Limited acknowledgement of vulnerability issues, sea level rise, tidal, drainage, salinity etc.
2. Greater focus on conditions of coastal interface and also Stann Creek River, Havana Creek.
3. Undertake review of Appendix 3: Dangriga Tourism Assets (Natural Tourism Resources) for status, vulnerability measurement and high priority protective actions.



2.4 Hopkins Tourism Destination Development Plan

Vision Statement

A thriving sandy beach community with diverse, world-class marine and jungle eco-tourism attractions providing visitors with authentic and vibrant Garifuna and other cultural experiences in a united, family friendly and safe environment.

Strategic Goals

- Develop and strengthen local business enterprises.
 - Strengthen law enforcement.
 - Develop a destination branding and marketing strategy.
- Improve Hopkin's Community Infrastructure.
 - Enhance portfolio of destination product offerings.
 - Strengthen human resource capacity in tourism services.

Appendix 5 – Map of Southeast Coast Destination



Opportunities and Constraints

1. Limited acknowledgement of vulnerability issues, sea level rise, tidal, drainage, salinity etc.
2. Judicious focus on beach conditions and access to marine and jungle-based tourism.
3. Undertake review of Appendix 3: Hopkins Tourism Assets (Natural Tourism Resources) for status, vulnerability measurement and high priority protective actions.



2.5 Placencia Tourism Destination Development Plan

Vision Statement

Offering a unique and authentic quaint village experience with a varied marine and jungle tourism product, Placencia aims to provide a high quality and safe visit that delivers excellent levels of guest satisfaction to benefit both community and investors while conserving its natural and cultural heritage.

Strategic Goals

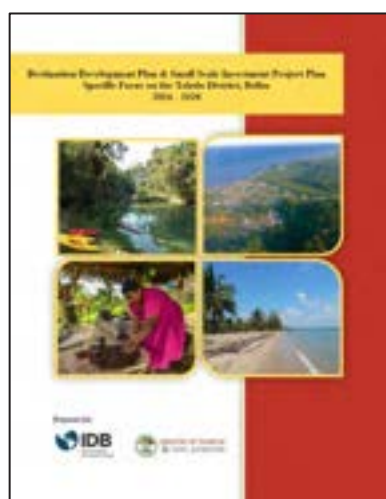
- Strengthen local monitoring and management of tourism development within the destination.
- Enhance critical infrastructure that supports tourism.
- Strengthen law enforcement capabilities in Placencia.
- Develop human resources to provide excellent hospitality and tourism services in Placencia.
- Position and promote Placencia within the tourism sector.

Appendix 5 – Map of Southeast Coast Destination



Opportunities and Constraints

1. Limited acknowledgement of vulnerability issues, sea level rise, tidal, drainage, salinity etc.
2. Status updated on Trunk urban infrastructure (sewer/water) and potential marina location.
3. Undertake review of Appendix 3: Placencia Tourism Assets (Natural Tourism Resources) for status, vulnerability measurement and high priority protective actions.



2.6 Destination Development Plan & Small-Scale Investment Project Plan: Specific Focus on the Toledo District, Belize (2016 – 2020)

Vision Statement

To make Toledo a one-of-a-kind tourism destination – recognizing the need to balance nature, culture, and development in a sustainable manner.

Toledo's Key Development Areas

1. Downtown Welcome Area
 - Heritage Tour
 - Welcome Centre
 - House of Culture
2. Seaside Promenade
 - Punta Gorda marina
3. Improving rural site infrastructure
4. Capacity Building



Figure 7 Toledo Tourism Map. Sourced via Moen Travel Guide

Climate Change Evaluation

Impact	Implications for tourism
Warmer temperatures	Altered seasonality, heat stress for tourists, cooling costs, changes in plant-wildlife-insect populations and distribution, infectious disease ranges
Increasing frequency and intensity of extreme storms	Risk for tourism facilities, increased insurance costs/loss of insurability, business interruption costs
Reduced precipitation and increased evaporation in some regions	Water shortages, competition over water between tourism and other sectors, desertification, increased wildfires threatening infrastructure and affecting demand
Increased frequency of heavy precipitation in some regions	Flooding damage to historic architectural and cultural assets, damage to tourism infrastructure, altered seasonality
Sea level rise	Coastal erosion, loss of beach area, higher cost to protect and maintain waterfronts
Sea surface temperature rise	Increased coral bleaching and marine resource and aesthetics degradation in dive and snorkel destinations
Changes in terrestrial and marine biodiversity	Loss of natural attractions and species from destinations, higher risk of disease in tropical-subtropical countries
More frequent and larger forest fires	Loss of natural attractions; increase in flooding risk; damage to tourism infrastructure
Soil changes (e.g. moisture levels, erosion and acidity)	Loss of archaeological assets and other natural resources, with impacts on destination attractions.

Table 8 Major climate change impacts and implications for tourism destinations.

Opportunities and Constraints

1. Useful baseline acknowledgement of climate change threats, and associated risks (i.e., coastal flood zones).
2. Review of seaside promenade for coastal inundation impacts and adopt nature-based possibilities.
3. Consider Punta Gorda Marina modelling for extent and configuration.



2.7 Destination Development Plan & Small-Scale Investment Project Plan: Mountain Pine Ridge Forest Reserve, Chiquibul Forest Reserve, Chiquibul National Park and Caracol Archaeological Reserve (2016 – 2020)

Vision Statement

A unique destination that preserves the history, biodiversity and natural splendour of the area while providing multiple safe and quality experiences for visitors.



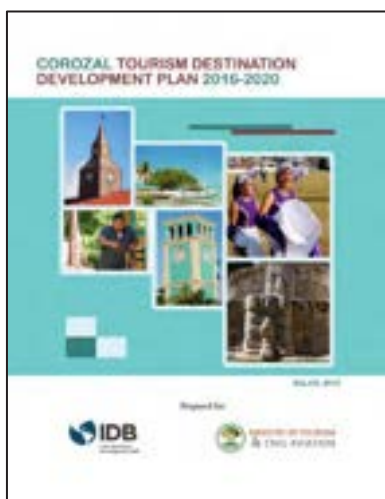
Figure 2 Map of the Complex



Figure 3 Working Structure for the Maya Mountains Tourism District

Opportunities and Constraints

1. Useful baseline acknowledgement of climate change threats, and associated risks (i.e., biodiversity and park management).
2. Improved coordinated connections between National Parks and associated facilities.
3. Need for focused sustainable park management practices for Maya Mountains District.



2.8 Corozal Tourism Development Plan (2016 – 2020)

Vision Statement

A vibrant, family-friendly, nature-based, cultural destination with diverse tourism experiences and attractions developed in an equitable and sustainable manner.

Strategic Goals

- Highly improved standards and quality of tourist products and services in Corozal.
- Increased opportunities for equitable tourism benefits.
- Increased and sustained tourist arrivals and overnight stays in Corozal.

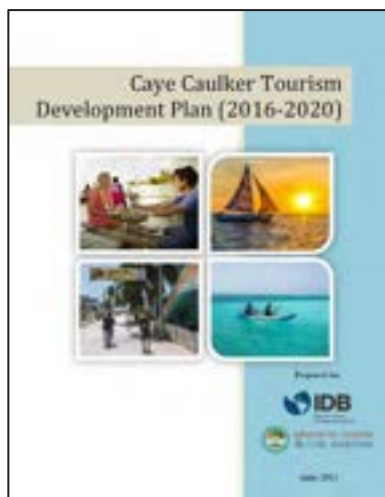
The primary need is that of adapting the waterfront and adjacent urban areas in Corozal town to provide a welcoming ambience that will exhibit the Bay in a memorable way. Once a promenade or boardwalk is installed the House of Culture can be upgraded as a full-fledged visitors' center providing information about the Bay's natural attractions, as well as cultural and historic features of interest (such as the Catholic Church, Fort Barlee, Santa Rita Archaeological Site, etc.).

The House of Culture/visitors' center could perhaps also serve as a staging area for excursion boats and water taxis, providing water linkage and connectivity to San Pedro, Chetumal, Copper Bank, Consejo, Sarteneja, Cerros, and Bacalar Chico. An encompassing master plan for the waterfront part of the town is needed. The visitors' center could present the story of the Bay and the meaning behind its role as a wildlife sanctuary.



Opportunities and Constraints

1. Some acknowledgement of vulnerability issues, sea level rise, tidal, drainage, salinity.
2. Examine implications of sea level rise and related climate impacts on Corozal Bay (modelling).
3. Advance clearer defensive climate mitigation measures, integrated with urban enhancements.



2.9 Caye Caulker Tourism Development Plan (2016 – 2020)

Vision Statement

A high-quality marine tourism destination with healthy ecosystems, friendly people, and a low-key island charm sustainably harnessed by a progressive, thriving, and prosperous community.

Strategic Goals

- Highly improved standards and quality of tourism products and services in Caye Caulker.
- Expanded and responsible municipal & tourism infrastructural development at Caye Caulker.
- Increased and sustained tourist arrivals and overnight stays in Caye Caulker.

Annex 4 – Maps of Caye Caulker



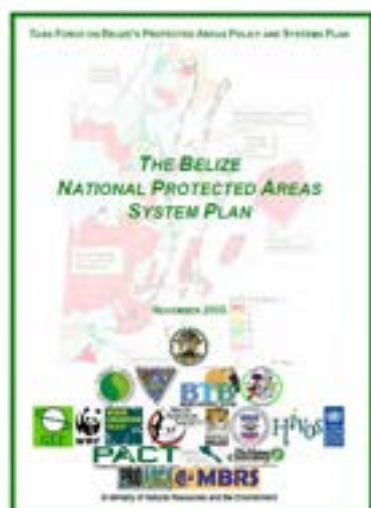
Environmental challenges

Environmental challenges are growing in number and severity. Overall, the lack of proper land use planning is seen as a cross-cutting problem. Beach erosion is a perpetual problem, with most of the erosion concentrated from the Split southward to the center of the island. Sand being “artisanally” mined from the Split area, boat traffic and unregulated mangrove clearance are the greatest contributors to the beach erosion taking place. Caye Caulker does not have a sewage system; only individual/residential septic tanks are in place. The disposal of untreated sewage into the mangrove areas (The Dump”) is a common occurrence and could have direct impacts on the nearby reef systems, which are already under stress from climate change and unregulated tourism activities (snorkeling, guiding, fishing, long-stay boats, etc.). The island has a reverse osmosis water purification system, but no one knows where the wastewater is disposed of and what environmental impacts the disposal may be causing. The non-potable tap water has a foul odor but villagers have no option but to use it. Climate change impacts are already evident (e.g., hotter days, sea level rise, sargassum volumes, etc.). Public health problems (such as respiratory ailments) may soon start to manifest themselves as a result of worsening air quality impacts from increased boating traffic. The latter also has the potential of damaging the slow-moving manatees. The Caye Caulker Forest Reserve holds great potential for the island in terms of alternative land-based tourism and recreational activities (e.g., birding, trails in the littoral forest, camping, and crocodile watching).

Opportunities and Constraints

1. Some acknowledgement of vulnerability issues, sea level rise, tidal, drainage, salinity.
2. Review of coastal/beach erosion and orderly sewage/drainage outfalls on Marine Reserve.
3. Advance clearer defensive climate mitigation measures, integrated with urban enhancements.

Section 3 Review of Additional Documents



3.1 The Belize National Protected Areas System Plan

Brief Description

This plan is based on the National Protected Area Policy, which provides a set of guiding principles for the declaration, modification, and re-designation where necessary; management and administration; socio-economic assessment and analysis; ecological assessment and analysis, and monitoring and evaluation of marine and terrestrial protected areas in Belize. The plan conducts a protected area system assessment and analysis to assess to what degree the network of protected areas already meets the desired characteristics of the national system, where the gaps lie and where there are opportunities for rationalization.

Protected Areas in Belize

Belize already has an extensive network of 94 protected areas, counting all the statutory sites and those private protected areas recognised as part of the national system. Some of these (notably the marine reserves) are zoned according to management regime, making a total of at least 115 management units. Together they cover 26.2% of the national territory, primarily in terrestrial and coastal habitats where the coverage is 36.4%. This compares with 13.6% in the marine zone, due to the large extent of open sea.

Protected Area System Assessment and Analysis

- **Step 1: Identify areas for biodiversity protection**

The first step in the assessment is to establish what area should be under some form of effective conservation management within the system in order to fulfil its primary function for biodiversity protection. This must be based on an ecosystem approach to conform to the Convention on Biological Diversity. An ecosystem map has therefore been prepared that identifies 65 terrestrial, mangrove and freshwater units, a further 14 units in the marine zone and several types under more intensive human use.

- **Step 2: Assess conservation needs in specific ecosystems**

A scoring system has been established to (1) assess target coverage for each ecosystem; and (2) assess the relative importance of existing protected areas in meeting those targets.

- **Step 3: Analyse gaps**

A gap analysis is conducted to compare targets with actual coverage, so identifying where there are gaps and where targets are met or exceeded. It therefore builds on the assessment of relative importance of existing sites by identifying the ecosystems that require attention.

MARXAN as a conservation planning tool is used to analyse the distribution of a set of given 'conservation features' across the national territory and selects 'best options' for their inclusion in the protected area system. The 'conservation features' are essentially refined site-scoring criteria, taking account of features that denote preference for conservation and those that indicate high human pressure. The deeper the footprint, the more difficult effective conservation management becomes.

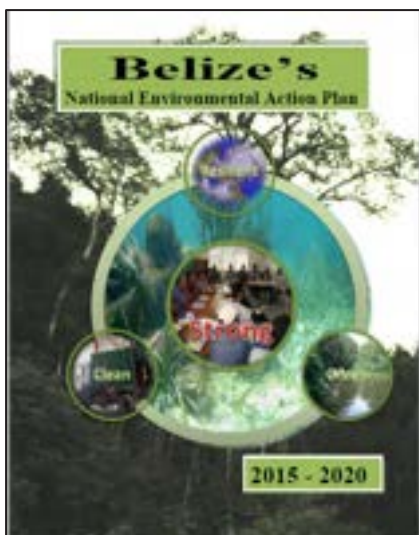
Implications for Protected Area System Design

The assessment shows that the present protected area network provides a strong base for a consolidated National Protected Area System but also highlights the following issues:

- Ecosystem coverage is presently incomplete. Efforts are needed to extend protected area status for those that are under-represented and especially for those that are not represented at all.
- Five main biological corridors and five riverine corridors are identified as important by the Mesoamerican Biological Corridor Project but only one is totally contained in the protected area network.
- Establishment of protected areas in the following localities would contribute significantly, both in ecosystem coverage and in maintaining connectivity.
- The open and deep-sea ecosystems are also unrepresented, but their characteristics are very poorly known.
- The highways carry a heavy human footprint on the landscape, breaking biological connectivity. Special measures need to be devised to reduce this impact in key areas.
- Private protected areas already perform a crucial role in the national network and will play an even bigger role in filling gaps in coverage and in creating functional biological corridors.
- There is room for adjustments and modifications to the existing protected area network and to site management approaches without jeopardy (and sometimes with enhancement) to core values.

Opportunities and Constraints

1. The ecosystem map of Belize in the document was created using data in 2004. Consider updating the ecosystem map with the latest data.
2. Consider using a protected area analysis to inform tourism planning.
3. The scoring system used for analysis draws on (generally good) rules of thumb. While it could be a useful tool, it might be inadequate to advance the scientific approach the plan aspires to apply.
4. An analytic hierarchy process (AHP) might be helpful to determine the weights of the factors used in the scoring system.



3.2 Belize's National Environment Action Plan (2015-2020)

Brief Description

The economy of Belize is highly dependent on its Tourism Sector that is extremely sensitive to pollution and environment management issues. The National Environment Action Plan identifies the issues for priority consideration in Belize's environment management. Key issues in relation to tourism development include degradation of terrestrial resources, degradation of marine resources, marine pollution, disaster risk reduction, response to global climate change, environmental governance, and institutional strengthening. It also highlights the goals and strategic actions to address these key issues, thus making a Green,

Clean and Resilient and Strong Belize.

Vision and Mission

The vision is to be leaders in environmental stewardship for sustainable development both nationally and regionally. The mission is to ensure that Belize's development is sound through effective environmental management for present and future generations.

Key environmental issues

- **Degradation of Terrestrial Resources**

The forests of Belize over the past 30 years have undergone extensive change due to increasing demand for fuel-wood, illegal logging and the conversion of forest lands to non-forest uses. To address this issue, the plan sets the goal of developing and adopting a new and robust forest policy that aims to use the forest and other natural ecosystems sustainably. Strategic actions include (1) prioritizing & protecting areas that must be maintained as forests; (2) developing a comprehensive monitoring system to evaluate changes in the forest cover, carbon stocks and forest biodiversity and to use this information for further planning in light of climate change mitigation and adaptation.

- **Degradation of Marine Resources**

Belize's coastline, particularly in sensitive eco-logical areas and many of the country's mangrove islands are experiencing un-precedented impacts primarily from tourism related development. To address this issue, the plan sets the goal of promoting the protection and rational use of marine-coastal ecosystems of Belize, strengthening trans-boundary coordination and national actions with a focus on fisheries, tourism and marine areas. Strategic actions include (1) exploring the use of biodiversity offsets; (2) implementing A National Coral Reef Monitoring Program; and (3) regulating tourism development by limiting acceptable change and developing guidelines for tourism related activities.

- **Marine Pollution**

To address marine pollution and damage to the marine ecosystem related issues, the drafting of a Marine Pollution Bill commenced in 2013. The purpose of the draft Bill is to provide for the Belize's powers and jurisdiction in relation to the prevention of marine pollution and other related issues such as damage from groundings of ships and anchoring on the Belize Barrier Reef. In addition to the implementation of the Draft Marine Pollution Bill, the plan

also sets the goal of improving marine pollution monitoring. Strategic actions include (1) developing a comprehensive monitoring and surveillance plan to prevent the incidence of or mitigate marine pollution; and (2) strengthening the existing institutions with the necessary competence to conduct marine pollution monitoring and surveillance and enforcement.

- **Disaster risk reduction**

Belize is prone to various hydro-meteorological hazards, which include tropical cyclones, storms surges, floods, and drought. The country's high vulnerability to natural hazards and disasters is worsened because a large majority of its population and economic activity such as agriculture and tourism are concentrated along the exposed coastal zone and flood prone areas of the Greater Belize River Basin that drains the central zone of the country. To address this issue, the plan sets the goal of building resilient communities to the effects of natural, technological, and environmental hazards and engendering a shift from protection against hazards to risk management. Strategic actions include conducting dynamic risk analysis.

- **Response to Global Climate Change**

The Government of Belize has developed and adopted a national policy on Global Adaptation to Climate Change. The Belize Climate Change Adaptation Policy is directed at all government agencies, which execute policies or provide services in sectors, which may be impacted by global climate change including tourism. Belize's National Environment Action Plan requires to foster the development and effective implementation of a Climate Change Action Plan in tandem with the associated policy. Strategic actions include (1) undertaking climate change vulnerability studies of the environment, and (2) identifying adaptation options to meet the threats of climate change.

- **Environmental Governance and Institutional Strengthening**

There is the need to strengthen national capacities to adequately monitor and collect data on the indicators used to measure sustainable development goals, which are also essential in being able to quantitatively measure the impacts of development policies on the environment, whether positive or negative, as means to streamline policies that are being implemented. An important action is to enhance the Department of Environment's GIS/spatial analytical capabilities.

Opportunities and Constraints

1. Consider the establishment of spatial databases for Belize to inform decision making.
2. The conservation of forests, especially steep slopes and watersheds could be prioritised in tourism planning.
3. Consider the inclusion of strategic actions to reduce the impacts on the ecosystem and mitigate marine pollution.
4. Consider the introduction of GIS/spatial analysis in the preparing of tourism plans, such as dynamic risk analysis, biodiversity offsets, climate change vulnerability studies.



3.3 A National Climate Change Policy, Strategy and Action Plan to Address Climate Change in Belize

Climate change in Belize

According to the UNDP Country Profiles studies, an increase in air temperature ranging from 2 - 4°C is projected by 2100 for Belize. Similarly, a general decrease in annual rainfall of about 10% is projected by 2100. Modeling scenario undertaken as part of this study revealed similar patterns. Sea level is projected to rise steadily along the coast of Belize. In the low, medium and high emission scenarios, sea level rise is projected to exceed 10 cm by the 2030s. Heights of 22, 23 and 38 cm respectively are projected for the low, medium and high emission scenarios by 2050 and 34, 56 and 120 cm,

respectively by the end of the Century.

National Climate Change Policy, Strategy and Action Plan (NCCPSAP)

The key impacts of climate change in Belize are the rising sea level, changes in weather patterns possibly resulting in increasing intensity, size and duration of storms and other such catastrophic events, and flooding, and anomalies in precipitation, this is confirmed by the 2008 Vulnerability Assessment of the Belize Coastal Zone (<https://www.yumpu.com/en/document/read/12313798/vulnerability-assessment-of-the-belize-coastal-zone>). The document recognizes climate change is already having a negative effect on the social, economic, and productive sectors such as the coastal zone and human settlement, fisheries and aquaculture, agriculture, forestry, tourism, water, energy and health; the physical environment including land, and infrastructure, such as roads and coastal structures; as well as the sustainability of natural resources such as marine and coastal areas, natural ecosystems, and biodiversity. The Government of Belize (GOB) has to date, issued no formal, overarching, national policy in respect of climate change mitigation and adaptation, despite that some draft policies have been developed but never finalised or adopted. However, since the publication of its First National Report to the UNFCCC the GOB has sought, through several line ministries, to initiate policy-based activities, at the sector level, to address (adapt and mitigate) the impending impacts of Climate Change.

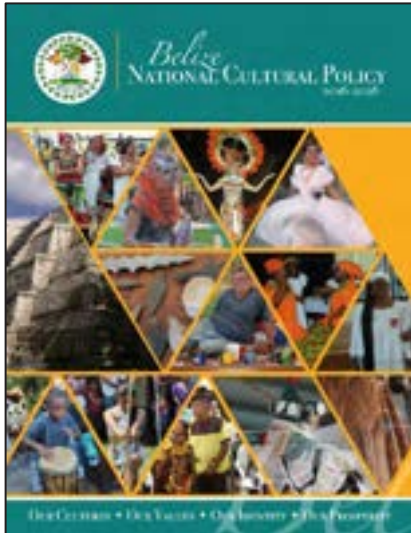
The document then describes the vision, goal, objectives of the National Climate Change Policy and the objective of NCCPSAP. Detailed adaptation and mitigation strategies and actions are provided in the Strategies and Action Plan for sectors such as Agriculture, Forestry, Fisheries and Aquaculture, Coastal and Marine Resources, Water Resources, Land use and Human Settlements, Human Health, Energy, Tourism, Transportation, and Solid Waste. The Climate Change Action Plan is a five-year programme (2015-2020) to build the capacity and resilience of the country to meet the challenges of climate change. The implementation of the NCCPSAP will require the establishment of a coherent, overarching governance structure, consisting of clear policy directives, and supported by an enhanced institutional framework. These include arranging institutional framework (key ministries, agencies, and their climate change management functions) and legislative and regulatory mechanisms, the need for a governmental entity (e.g. Climate Change Department) to be strategically placed so that it can effectively coordinate the implementation of climate change adaptation and mitigation action in development planning and decision-making, the re-configuration and streamlining of the BNCCC (the new Belize National Climate Change Committee), and resources mobilisation.

Recommendations

The document makes a few recommendations that the Cabinet give approval to the following to facilitate successful implementation of the NCCSAP:

- Develop and adopt the National Climate Change Policy to enable the country to achieve the adaptation and mitigation goals.
- Amend key sectoral laws to make them consistent with the framework climate change law and to ensure that all actions under the Ministry responsible for climate change have the legislative basis to be implemented and translated from concept to practice. This can be done either through single Statute (Miscellaneous) Amendments Bill or through a raft of separate amendments of the relevant sectoral law.
- Establish a CCD, in the Ministry responsible for climate change with the role of primary coordination, policy direction, oversight and guidance across all levels of government. The Office should ensure mainstreaming of climate change by national government agencies and departments. The CCD is expected to coordinate climate change issues through an inter-ministerial and inter-agency committee as required by the UNFCCC.
- The CCD will be the primary national government technical agency for climate change response and should be located within the sectoral ministry responsible for climate affairs.
- Approve the revised mandate of the BNCCC to provide policy guidance and oversee the operations of the CCD. Among the duties of the BNCCO will be the proposal and continuous revision of climate policy, oversight of climate change strategy and action plan implementation, proposal of climate change legislation, as well as the role of national compliance and enforcement.

In order to fulfil its mandate, the CCD will be provided with financial resources, and adequate staffing capacity that support the performance of these key functions.



3.4 Belize National Cultural Policy

The National Cultural Policy provides the policy framework for the safeguarding of Belize's tangible and intangible cultural heritage; the promotion of cultural expression and creativity; the development of cultural and creative industries and the wise management of Belize's cultural resources.

The policy proposes a democratic and decentralized model for culture in Belize. It is referred to as the Belize Culture Model. It assumes that culture and cultural practices exist in all persons, communities, groups, and institutions in Belize, with each having a role to play. The Belize Culture Model calls upon all stakeholders to fulfill their functions within the mores, laws, and customs of a multi-cultural and

democratic society. It asks that all cultural actors consider the freedoms which are guaranteed within the Constitution of Belize and to allow the fulfilment of these rights so that persons may properly assert their Belizean cultural identity and exercise creativity for personal growth and national development.

The National Cultural Policy document comprises three parts.

The First Part covers Vision of the Policy; Core Values; Rationale for the Policy; Guiding Principles and Context; Bill of Cultural Rights; Process in Policy Formulation; Definitions of Culture in the Context of Belize and Legal and Institutional Frameworks; Policy Objectives; Policy Framework; and the Belize Culture Model.

The Second Part covers Priority Policy Areas and Policy Interventions on Cultural Heritage Safeguarding; Cultural and Creative Industries; Culture in Education and Environment; Culture in Tourism, National Development and Poverty Eradication; Culture, Youth and Technology; Domestic, Regional and International Cultural Relations and Financing and Administration of Culture.

The Third Part covers Policy Governance and Implementation Matrix and Policy Review Schedule.

The policy's vision is to forge a prosperous nation of united, resilient, peaceful, and creative people driven by the shared values and beliefs of a multi-ethnic, multi-cultural, and democratic society. The slogan is: OUR Cultures, OUR Values, OUR Identity, OUR Prosperity.

The principles for the National Cultural Policy focus on Belize being a young nation with a diverse people uneasily struggling to create a national identity. The demographic profile of Belize is a result of patterns of voluntary and involuntary migration. The people of Belize have a rich tangible and intangible cultural heritage that is crucial in both identity and nation building. Culture is central to identity. Therefore expression, presentation, and promotion of Belize's culture through the implementation of this policy should bring people to respect both our uniqueness as individuals and our diversity as Belizeans. Nation building efforts and strategies must include advocacy for culture; effective mobilization of resources for cultural development; diaspora involvement in the overall development of the nation; promotion of and respect for national heroes and national symbols; multi-stakeholder consultation and collective decision making. Finally, the rich and diverse cultural and

creative expressions of all communities in Belize has to be nurtured and effectively promoted to ensure full participation in cultural life and the expression of our democratic values.

The document goes on to identify a Bill of Cultural Rights and to provide a definition of Culture in the context of Belize: The definition of culture used in this National Cultural Policy is adopted from the UNESCO definition where CULTURE comprises the whole complex of distinctive spiritual, material, intellectual and emotional features that characterize a society or a social group. It includes not only the arts and letters, but also modes of life, the fundamental rights of human beings, value systems, traditions, and beliefs.

In the context of Belize, culture is the sum total of the ways in which a society preserves, identifies, organises, sustains, and expresses itself. The Nation of Belize is endowed with a rich and diverse cultural heritage including the cultures of indigenous people and afro-descendants, as well as other people who have settled in Belize overtime. Culture is a form of capital with the potential to move people out of income poverty.

The report goes into Legal and institutional frameworks and policy objectives and a policy framework. It references the Belize culture model. And identifies priority policy areas and policy interventions, including cultural heritage safeguarding for both tangible and intangible cultural heritage. The document looks at the development and promotion of cultural and creative industries and culture in education and environment. It also reviews culture in national development, tourism and poverty eradication and culture, youth, and technology. The report goes on to evaluate the domestic regional and international cultural relations. It then wraps up with the financing and administration of culture and the national cultural policy governance and implementation matrix and national cultural policy review schedule.

3.5 Comparative Analysis Cost of Doing Business in Tourism – Regional

The aim of this Report was to compare the cost of doing business in Belize vis a vis the country's main regional tourism competitors in the Caribbean and Central American region. The regional competitors chosen were The Bahamas, Costa Rica, Honduras, Barbados, Jamaica, Trinidad & Tobago, Panama & the Dominican Republic. No explanation was provided for the countries selected. In that regard, Guatemala, due to its proximity with Belize and similarities in its tourism offerings, ought to have been selected.

Two sets of indicators were used to measure the cost of doing business. The first set of indicators was generalized and focused on a broad range of fees and services to start up and operate any business, while the second set of indicators were specific to the tourism sector. The report acknowledged the limitations of accessing and comparing data from various countries.

These limitations notwithstanding, the major findings are as follows:

- There are some areas in the current tax regime levied on the local tourism sector that require adjustments to enhance Belize's competitiveness.
- There are also ample opportunities to improve non-fiscal adjustments – such as procedural improvements & reducing processing times – that are regarded as major deterrents to investors.
- Acknowledging that minimizing tax liabilities will potentially reduce BTB's revenue intake, a recommendation is to expand the types of tourism businesses that are require regulation to include gift shops and attractions etc.

It is to be acknowledged that there are many other determinants that merit consideration when focusing on comparative costings of destination analysis. Some of these determinants may be outside the control of Belize, which unlike some of the countries selected, does not have a national airline. Tourism constitutes varying percentages of the GDPs of the selected countries and that provides scope for governments to vary tax regimes accordingly. Also, an assumption underlying comparative analysis costings is that reducing costs may increase visitation, but there may be other important considerations, such as security issues that determine number of arrivals.

Belize is acknowledged as a high-cost destination due to several factors that cannot be changed in the medium term. As an emerging tourism destination, Belize ought to attempt to minimize costings where possible, streamline processes where feasible, but its main thrust ought to focus on seeking to enhance the quality of the visitor experience. Should this occur, satisfied visitors will advertise their experiences via multiple and easily available social media platforms. This level of free publicity is widely acknowledged to be priceless. Finally, a satisfied visitor is likely to also be a repeat visitor.