

An Evaluation of National Tourism Plans in the Caribbean-SIDS Region in the Context of
Climate Change

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

The Caribbean-Small Island Developing States (SIDS) region is heavily reliant on its tourism sector which is amongst the most vulnerable to climate change impacts globally. Sector officials and regional governments have acknowledged that the impacts of climate change will have serious implications on tourism and by extension, the region's development. This is because tourism is positioned as an essential element of these nations' development strategies and their prospects of achieving the United Nations Sustainable Development Goals (SDG) 2030 Agenda. Substantial financial and technical resources have been used to develop the region's national tourism plans, which are the main policy instruments that guide tourism development and planning in the region. However, it is unclear whether the strategies contained in these plans have been effective in achieving appropriate climate change responses.

It is within this context that I posed the overarching research question: ***“Is the tourism sector in Caribbean-SIDS ready to deal with the projected impacts of climate change?”*** This dissertation used a novel approach - the Tourism-Climate Change Plan Quality (TCCPQ) framework to explore the readiness of the region's tourism sector to the projected climate change impacts. This framework consisted of a protocol which comprised eight core plan quality principles and fifty-six criteria and used content analysis to assess the quality of thirteen of the region's publicly available national tourism plans in the context of climate change.

The research revealed that there is evidence of the integration of climate change actions in the region's national tourism plans. However, there are opportunities to enhance the capacity across the region to aid in improving the quality of plans in articulating their fact base, goals, implementation, and monitoring and evaluation as these were found to be weak areas.

The research also captured the perceptions of tourism, climate change, and planning stakeholders in the region, to determine the priority areas for climate change responses in the tourism sector. Recommendations are provided for improving the quality of the plans and to assist the region in enhancing its tourism sector's capacity to plan for and manage anticipated climate change impacts. The study offers some valuable contributions for theory, practice, and research design.

Key words: Caribbean-SIDS, climate change, plan quality, TCCPQ Framework and tourism

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Dedication

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List of Abbreviations

CAP	Climate Action Plan
CARICOM	Caribbean Community
CCCCC	Caribbean Community Climate Change Centre
CCORAL	Caribbean Climate Online Risk and Adaptation Tool
CDEMA	Caribbean Disaster and Emergency Management Agency
CHTA	Caribbean Hotel and Travel Association
CIMH	Caribbean Institute of Meteorology and Hydrology
CTO	Caribbean Tourism Organization
DFID	Department for International Development
GCF	Green Climate Fund
GDP	Gross Domestic Product
ICLEI	International Council for Local Environmental Initiatives
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
J-CCCP	Japan-Caribbean Climate Change Partnership
MDA	Ministries, Departments and Agencies
NAP	National Adaptation Plan
SIDS	Small Island Developing States
TCCPQ	Tourism Climate Change Plan Quality Framework
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

UNWTO United Nations World Tourism Organization
WTTC World Travel and Tourism Council

Chapter One

1 Research Context and Background

This Chapter sets the context for the dissertation and highlights the various facets of the research. Its purpose is to outline the problem, the research questions, and discuss the significance of the research. A description of the study area is provided - the Caribbean Small Island Developing States region, hereafter referred to as Caribbean-SIDS or the region. The Chapter ends with an outline of the dissertation's organization.

1.1 Research Context

Prior to the global COVID-19 pandemic, tourism was considered as a key driver of socio-economic progress (Brida et al., 2016; Dogru & Bulut, 2018; Michailidou et al., 2016; Telfer & Sharpley, 2016), and one of the fastest and largest growing economic sectors globally (United Nations World Tourism Organization [UNWTO], 2018e; UNWTO & United Nations Development Programme [UNDP], 2017; World Travel and Tourism Council [WTTC], 2019). Among the chief challenges that confront the tourism sector is climate change, as the sector is climate sensitive (Allen et al., 2018; Michailidou et al., 2016; Scott et al., 2019; UNWTO, 2018). Climate determines the length and quality of the tourism season (de Freitas, 2017; Scott et al., 2016). It also influences the operational and environmental conditions that may attract or discourage potential tourists (Scott & Lemieux, 2010; UNWTO, 2018).

Climate change will have serious implications for the tourism sector (Nicholls, 2014; Pandey & Rogerson, 2018; Scott et al., 2019). Scott et al. (2012) noted that there are four broad pathways that climate change and climate policy could affect the tourism sector. These

include: (a) direct climatic impacts, such as damage to tourism assets; (b) indirect climate-induced environmental change, for example beach erosion and loss of natural tourism attractions; (c) indirect climate-induced socio-economic change which can lead to a reduction in Gross Domestic Product (GDP) particularly for countries that are heavily reliant on tourism; and (d) mitigation and adaptation policy responses outside of the sector that can result in shifts in tourist flows (see also Appendix 1-1).

There is acknowledgement among scholars that there might be some positive impacts from climate change for the sector, including options for new types of tourism, new localities becoming more attractive to tourists, the emergence of “last chance” tourism, and longer tourist seasons in some localities (Demiroglu & Hall, 2020; Michailidou et al., 2016). However, these positive impacts are temporary (Chin et al., 2019; K C, 2017). In some instances, these positive impacts could result in future negative repercussions. For instance, last chance tourism could lead to maladaptation due to long haul travel to some tourist sites (Demiroglu & Hall, 2020).

The impacts on the tourism sector will also have serious implications for global development in general. This is because tourism is being used as a strategy for achieving some of the UN’s Sustainable Development Goals (SDGs) as mentioned in goals “8.9,” “12b” and “14.7” (see Box 1-1). Governments and international development aid agencies such as the UN, promote pro-poor tourism in some less developed countries as a mechanism to curtail poverty and facilitate the elevation of these countries’ development status. However, pro-poor tourism strategies can be counter-productive to reducing absolute emissions in the sector, and tourism’s contribution to climate change (Hall et al., 2013).

Box 1-1

United Nations Sustainable Development Goals Specific to Tourism

- Goal 8.9:** By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
- Goal 12b:** Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.
- Goal 14.7:** By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture, and

Source: (United Nations, 2015, pp. 21, 24, 26)

Climate change threatens the fulfilment of these tourism strategies and the economies of these nations based on projected impacts. Projections are that all countries will be affected by a reduction in Gross Domestic Product (GDP) due to climate change (Aboulnaga et al., 2019; Burke et al., 2015; Piontek et al., 2019). However, the Intergovernmental Panel on Climate Change (IPCC) disclosed that for nations that face the highest risk, their tourism sector accounts for more than 15% of their national economy (Hoegh-Guldberg et al., 2018). Similarly, Scott et al. (2019) have found that high vulnerability in the tourism sector occurs in countries that receive a high proportion of their GDP from tourism, and those with projected strong tourism growth rates, which includes several Caribbean-SIDS.

The Caribbean-SIDS region faces a unique challenge. It is one of the most vulnerable regions to the impacts of climate change and is highly dependent on a sector that is climate sensitive (Hoegh-Guldberg et al., 2018; IPCC, 2019; Pulwarty et al., 2010; Scott et al., 2019; UNWTO, 2020; WTTC, 2018). Further, because the region possesses certain underlying economic, social, and physiographic vulnerabilities, it can be challenging to plan for climate

change (see Table 2-2). In 2019, tourism contributed US\$59 billion to the Caribbean's economy, representing 13.9% of GDP which exceeded global average of 10.3% (WTTC, 2020). The gravity of the implications of climate change on the lives of citizens and localities in the region was evident in the massive destruction caused by the 2017 hurricane season (Dubrie et al., 2019; UNWTO & UNDP, 2017).

There are increasing calls to develop planning strategies to help limit and prepare for the impacts of climate change across various regions and sectors (Baynham & Stevens, 2014; IPCC, 2014; Mohammed et al., 2016; Mycoo & Donovan, 2017). Planning can facilitate climate change actions within sectors such as tourism through the preparation of sector-specific climate action plans. Plans are planners' primary tools to influence future growth and development and serve as communicative signals for intended outcomes (Baer, 1997; Lyles & Stevens, 2014). Planning theory advises that the public's interest is best served when it is guided by officially adopted plans that articulate the common goals and strategic mechanisms to bring intended goals to fruition (Berke et al., 2006; Stevens et al., 2014). Many jurisdictions have adopted climate action plans as the principal policy mechanism for decreasing greenhouse gas emissions (GHG), and managing the risk associated with climate change (Balouktsi, 2019; Baynham & Stevens, 2014; Boswell et al., 2012; Pan et al., 2019).

Climate action plans can be standalone documents or integrated into sector documents such as a tourism plan (see Becken et al., 2018; Resort Municipality of Whistler [RMOW], 2016). Integrating climate change responses in tourism plans is important for Caribbean-SIDS and other nations that have positioned tourism as a development strategy, given the vulnerability of their tourism sector. The research literature suggests that climate change should be an integral aspect of planning and policy making, and it should be strengthened in

tourism development plans (see Becken et al., 2020; Landauer et al., 2017; Moyle et al., 2018; Scott et al., 2019). In practice though, there is hardly any evidence to suggest that climate change has been incorporated in tourism planning and tourism policy making or treated as a priority for tourism policy makers. Becken et al. (2020) found that only 37% of 101 policy documents from 61 countries spanning a 17-year period, were comprehensive in their coverage of the climate change-tourism nexus.

Tourism and climate change enter the policy agenda at different moments and types of discourse (Santos-Lacueva & Velasco González, 2018). The lack of integration among the two themes - climate change and tourism, is more evident in tourism plans and policies, than in climate plans and policies (Becken et al., 2020). Globally, climate change responses are addressed in national policies and plans rather than articulated as a sector-specific issue. The assumption can be made that while some tourism plans in the Caribbean-SIDS region may not make explicit reference to climate change, they may contain actions that can indirectly impact or contribute to climate change responses for the sector. This assumption can only be determined through a systematic evaluation of the region's tourism plans.

With climate change representing one of the biggest threats to Caribbean-SIDS tourism, and tourist arrivals in the region exceeding 26 million arrivals annually (UNWTO, 2019b) prior to COVID-19, I pose the overarching research question: *“Is the tourism sector in Caribbean-SIDS ready to deal with the projected impacts of climate change?”* This dissertation explores the readiness of the region's tourism sector to the projected climate change impacts by using a Tourism Climate Change Plan Quality (TCCPQ) framework to assess the quality of national tourism plans in the region. The research also uses a survey to ascertain the views of tourism, climate change, planning, and other allied stakeholders in the

region. I wanted to determine the priority areas for climate change responses in the region's tourism sector, and to develop recommendations for improving the quality of national tourism plans to assist the sector in enhancing its readiness to the projected climate change impacts.

1.2 Significance of the Research

Substantial financial and technical resources were used to develop the region's tourism plans. It is unclear whether the strategies contained in these plans have been effective in achieving appropriate climate change responses as they have not been assessed. This research contributes to the body of knowledge in planning practice and theory. It uses a novel approach - the Tourism Climate Change Plan Quality (TCCPQ) framework to explore the readiness of the region's tourism sector to the projected climate change impacts by evaluating the quality of national tourism plans in Caribbean-SIDS. A systematic evaluation of these plans is significant to:

- highlight their strengths and weaknesses so that future tourism plans and investments are robust and responsive to topical issues including climate change;
- uncover key lessons for tourism plan making practices and theory development from the perspective of developing countries;
- offer a benchmark informed by the literature and current practices to ensure that these countries attain a desirable standard of addressing climate change;
- outline the key considerations that should be included in their contents to inform and guide climate actions in the region's tourism sector;
- provide guidance on how to integrate climate change action in tourism plans; and

- advance global climate change responses in the tourism sector.

Regional governments and sector officials have pledged support for climate change actions in the tourism sector (see Caribbean Development Bank [CDB], 2017; Cayman Islands Government, 2020; Eman, 2017; Ministry of Tourism, Jamaica, 2018). My study can provide recommendations for developing and implementing concrete regional climate actions and can advance global climate change responses. The study can guide regional decision-makers to identify where and how to direct limited resources to improve future planning for climate change in the sector. These guidelines could lead to greater efficiency and effectiveness in climate actions, and more sustainable destinations.

There is a deficit in practice-relevant research in Caribbean-SIDS to assist with the crafting of tourism plans. Many of the region's tourism plans were prepared by external consultants who may not understand the subtle differences among the nations, the region's tourism culture, or the impacts of tourism policies and strategies on the region, since these plans were developed for individual nations. A formal assessment of the plans is critical to inform tourism plan making and practices from a Caribbean-SIDS's context.

Apart from Eagles et al. (2014) who examined visitor and tourism park management plans in Canada, previous application of plan quality studies in the tourism domain is non-existent. Likewise, except for Jacobs (2014) who explored hazard mitigation, the Caribbean has not been the subject of plan quality studies which, to date, have focused on the United States, Canada, New Zealand, Australia, and some European jurisdictions (Berke & Godschalk, 2009; Lyles & Stevens, 2014). This study can help to inform empirical research as no study has examined the quality of tourism plans in the context of climate change.

Tourism research has been criticized for the absence of theories unique to the field (Franklin & Crang, 2001; Stumpf et al., 2016). My research responds to this gap by using grounded theory to demonstrate how the tourism sector in Caribbean-SIDS can enhance its readiness to the impacts of climate change by improving the quality of its tourism plans. Grounded theory, originally postulated by Barney Glaser and Anselm Strauss in their 1967 seminal work entitled, “The Discovery of Grounded Theory: Strategies for Qualitative Research,” is premised on the production of new theoretical insights that result from systematic data collection and analysis. My research therefore first examines several planning theories pertinent to the topic in Chapter Two, noting their basic premise, underlying assumptions, limitations, and utility. These theories are then revisited in Chapter Seven, where I discuss the extent to which they are applicable in elucidating the issues and providing guidance for a Caribbean-SIDS context based on the data collection and analysis phases of my research. Through this grounded theory approach, I provide new theoretical insights by making predictions, offering explanations and interpretations, and suggesting applications in different contexts (Glaser & Strauss, 2017) regarding plan quality and tourism-climate change planning.

The study’s significance is intrinsic in its qualitative research design. It incorporates the use of content analysis using the TCCPQ framework to assess the quality of the region’s tourism plans in the context of climate change. The study also incorporates qualitative feedback from participants to develop guidelines to improve the quality of the plans as further explained in Chapter Three which covers the research design. While the incorporation of participants’ feedback is not novel in plan quality research, its use remains uncommon,

since plan quality studies in general focus on content analysis (see Baynham & Stevens, 2014; Fu et al., 2017; Tang et al., 2010).

1.3 Research Problem

The Caribbean-SIDS region relies heavily on its tourism sector, which is amongst the most vulnerable to climate change impacts globally. Despite acknowledgements by regional governments and multilateral organizations that the impacts on the tourism sector will have profound implications (see CDB, 2017; Eman, 2017; Ministry of Tourism, Jamaica, 2018), the extent of the sector's preparation is unclear. To date, no assessment has been undertaken of the region's tourism plans - the main policy instruments that guide tourism planning and development. This assessment is important to determine their quality, and whether the strategies and actions contained in them are responsive to the projected impacts of climate change on the sector. Regional tourism plans are economic in their focus and in some instances, are either outdated (e.g., Jamaica) or non-existent (e.g., Antigua). This situation underscores the lack of urgency with which some regional governments treat climate change, a phenomenon that has the potential to cripple the economy of Caribbean-SIDS.

1.4 Research Questions

Research questions were used instead of a hypothesis, as the focus was on creating new knowledge (Croucher & Cronn-Mills, 2015) to improve the quality of the region's tourism plans to address climate change impacts. In developing the research questions, I considered the knowledge gaps in the tourism-climate change scholarship. I noted that global policy responses including planning, technological, and behavioural, for addressing climate change in the tourism sector are general, and do not reflect the socio-economic or geo-physical

conditions in Caribbean-SIDS. Most studies on tourism and climate change are conducted from developed countries' perspectives, reflecting an overarching positivist paradigm (Becken, 2013; Scott & Becken, 2010). It is questionable whether some of the findings and recommendations from these tourism studies can be applied to a Caribbean-SIDS context.

Becken et al. (2020), questioned the extent to which the tourism sector has actively contributed to the process of integrating climate change policies. Moyle et al. (2018) pointed out that only a handful of studies assess the policy and practice initiatives of the tourism sector in addressing climate change. This research provides responses to the question posed by Becken et al. (2020) and fills the gap in the research on the integration of climate change in tourism planning initiatives from developing countries' perspective.

Plan quality guidelines were established for climate action, including those for National Adaptation Plans (NAPs) by the United Nations Framework Convention on Climate Change (UNFCCC) and the International Council for Local Environment Initiatives (ICLEI). This research measures the quality of the region's tourism plans based on these guidelines, and other core plan quality principles used in the climate change domain.

In view of the foregoing, I revisited the overarching research question, "*Is the tourism sector in Caribbean-SIDS ready to deal with the projected impacts of climate change?*" I developed several sub-questions to answer the overarching research question. These sub-questions are descriptive and normative in nature, and they serve the purposes of narrowing the focus and providing structure for the research (Alvesson & Sanberg, 2013; Creswell, 2014). The sub-questions are:

1. What are the characteristics of a high-quality climate change tourism plan?

2. What is the quality of the tourism plans in the Caribbean-SIDS region in addressing climate change?
3. How can the quality of tourism plans in the region be improved to address climate change?

1.5 Research Objectives

Based on the overarching research question and sub-questions, the objectives of the study are to:

1. develop a framework for assessing regional tourism plans grounded in climate change plan quality criteria;
2. assess the quality of tourism plans in Caribbean-SIDS based on the framework developed; and
3. create guidelines for improving the quality of tourism plans in the region in the context of climate change.

1.6 Delimiting the Study Area

In 1992, SIDS were formally recognized by the UN during its conference on Environment and Development in Brazil, as a group of countries that are confronted with specific social, economic, and environmental vulnerabilities (see Table 2-2). This recognition of SIDS was made in the context of Agenda 21¹ (UN, 2014; United Nations Office of the High Representative for Least Developed Country [UN-OHRLLS], 2017). The vulnerabilities that SIDS experience hamper their development process and so they require

¹ Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and major groups in every area in which human impacts on the environment. Additional information on Agenda 21 can be obtained from: <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>

special assistance and resources from the international community. There are 58 SIDS located in the Caribbean, the Pacific Ocean and the Atlantic, Indian Ocean, Mediterranean and South China Seas (AIMS) (see Appendix 1-2). This dissertation focuses on the Caribbean-SIDS region.

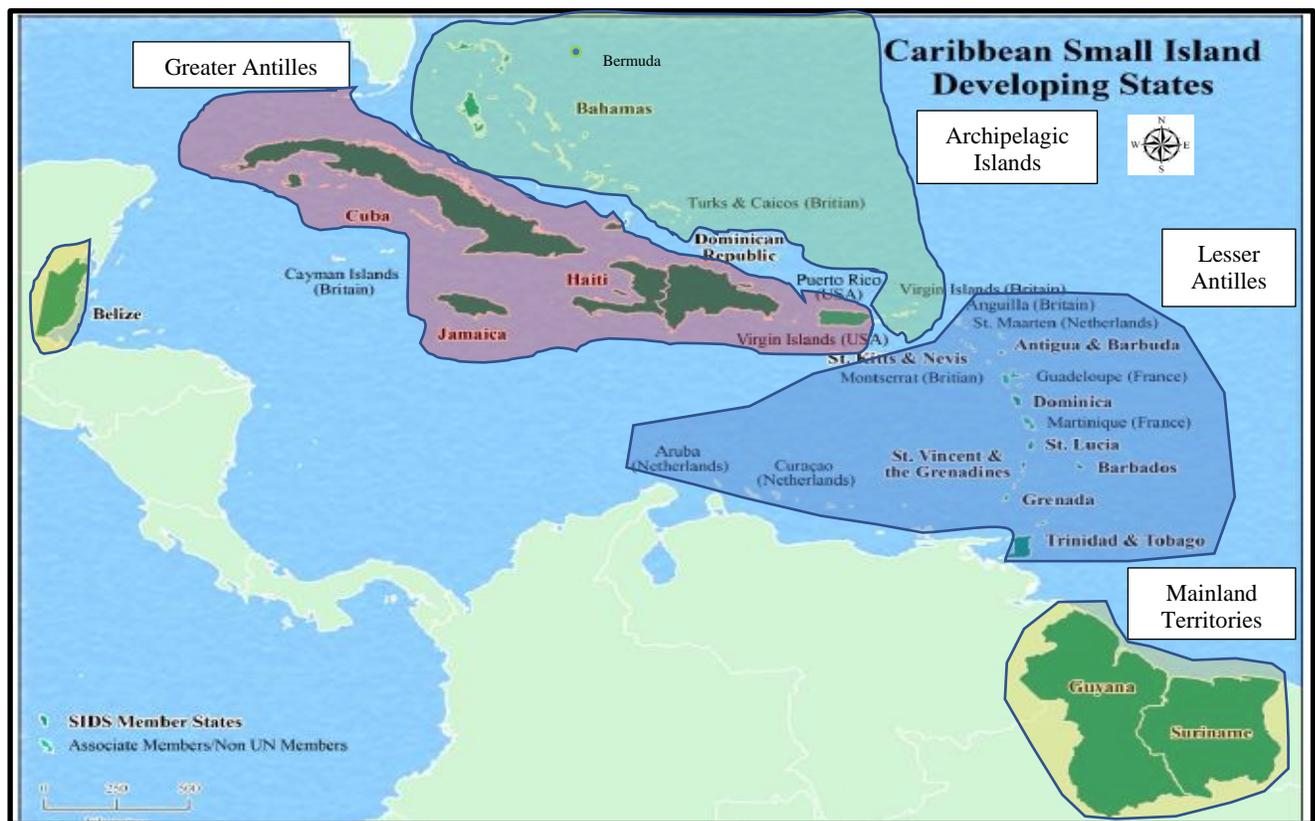
1.6.1 Description of the Study Area: Caribbean-SIDS

The term “Caribbean” has a variety of meanings, often because of the colonial influence, geography, culture, and existing political and governance arrangements within this region (Robinson, 2020; Tézer, 2020). Several terms are used to describe this geographic locality such as the Caribbean Basin, Caribbean Islands, Caribbean culture area, core Caribbean, and Caribbean-SIDS (Bishop & Payne, 2012; Segal, 1969). For this dissertation, the term Caribbean-SIDS region is used. Caribbean-SIDS region is composed of countries surrounded by the Caribbean Sea and those that border both the Caribbean Sea and the North Atlantic Ocean (see Map 1-1). There are four major groupings that comprise the region:

1. Greater Antilles which comprises the largest islands - Cuba, Hispaniola, Puerto Rico and Jamaica;
2. Lesser Antilles which stretches from Anguilla in the North to Grenada in the South;
3. A cluster of over 700 islands which includes the archipelago islands of Turks and Caicos, Bahamas along with the British Virgin Islands, US Virgin Islands; and
4. Main-land territories which include Guyana, Suriname, and Belize.

Map 1-1

Caribbean Small Island Developing States



Modified from: (DeGraff Ollivierre & Ramlal, 2015)

The region is home to approximately 45 million people (see Table 1-1) and is the largest contingent of SIDS worldwide with 29 nations. On average, for SIDS, their oceans are 28 times their land area (UN-OHRLLS, 2017). Caribbean-SIDS are former British, French, Spanish, and Dutch colonies and so their planning and governance frameworks reflect this past. These countries are rich in biodiversity and home to many endemic flora and fauna (Mycoo & Donovan, 2017; UN-OHRLLS, 2017). With many small low-lying islands comprising the region, it is susceptible to hurricanes, flooding, landslides, volcanoes, and earthquakes (Jacobs, 2014).

Capital cities and major infrastructure are mostly found in the coastal areas of Caribbean-SIDS (Mohammed et al., 2016; Mycoo & Donovan, 2017; United States Agency for International Development [USAID], 2018; Verrest et al., 2013). Estimates are that more than 50% of the region's population resides within 1.5 km of the coast (Frojmovic et al., 2013; Mycoo & Donovan, 2017). This situation places stress on the region's coastal ecosystem services and makes its coastal infrastructure vulnerable to climate variability and climate change impacts (Frojmovic et al., 2013; USAID, 2018). The region is dense, with a high of 1250 and 1247 persons per square kilometre in Bermuda and Sint Maarten respectively, surpassing global average of 59.3 persons per square kilometre. It is a highly urbanized region (65%), exceeding the world's average urbanization of 56% in 2019 (United Nations, 2020). In nations states such as Anguilla, Cayman Islands, and Sint Maarten, 100% of their population reside in urban areas (see Table 1-1).

Caribbean-SIDS have a combined GDP of approximately US \$575.3 billion (UN, 2014; UN-OHRLLS, 2017). Except for Haiti, the remaining nations are classified by the World Bank as high and upper middle-income. These classifications sometimes restrict their ability to access multilateral and concessional funding (Dubrie et al., 2019). Consequently, this makes financing climate change initiatives challenging in the region (Andrews et al., 2012; Samaniego & Schneider, 2015).

Although Caribbean-SIDS share a geographic area, there are subtle differences among them. Not all are islands such as Guyana, Belize, and Suriname. While a majority (66%) of these SIDS have a land area of less than 10,000 km², Cuba, Suriname, and Guyana have an estimated land area of more than 100,000 km² (see Table 1-1). Turks and Caicos, The Bahamas, US Virgin Islands, and The British Virgin Islands comprise a group of islands

despite most of the nations being single islands. Barbados, Aruba, and others are relatively flat, while Cuba, Jamaica, and Puerto Rico have high mountain ranges with rugged terrain. Some of the countries are independent states such as Jamaica, Trinidad and Tobago, and Barbados, while the U.S. Virgin Islands, British Virgin Islands, Cayman Islands, and Aruba are overseas and dependent states.

Table 1-1
Overview of Caribbean-SIDS

Country	Surface Area (km ²)	Population Per 1000	Density (Per km ²)	% of Urban Population	Income Level	GDP (US\$ million)
1. Anguilla	91	15	165.2	100	No data	281
2. Antigua and Barbuda	422	97	220.7	24.5	high	1510
3. Aruba	180	106	590.6	43.5	high	2701
4. Bahamas	13940	390	38.9	83.1	high	11792
5. Barbados	431	287	667.5	31.2	high	4713
6. Belize	22966	390	17.1	45.9	upper middle	1902
7. Bermuda	53	62	1250.1	100	high	6269
8. Bonaire, St, Eustatius (Statia) & Saba ²	328	26	79.2	75	No data	No data
9. British Virgin Islands	151	30	200.2	48.1	high	996
10. Cayman Islands	264	65	270.6	100	high	4030
11. Cuba	109884	11334	106.5	77.1	upper middle	96851
12. Curaçao	444	163	368.1	89.1	high	3122
13. Dominica	750	72	95.7	70.5	upper middle	497
14. Dominican Republic	48671	10739	222.2	81.8	upper middle	75932
15. Grenada	345	112	329.4	36.4	upper middle	1127
16. Guadeloupe	1705	400	245.7	98.5	no data	No data
17. Guyana	214969	783	4	26.7	upper middle	3543
18. Haiti	27750	11263	408.7	56.2	low	8521

²² Although the Caribbean Netherlands are now regarded as municipalities following their dissolution as a country in 2010, they are included in the study since both Bonaire and St. Eustacia have their own national tourism plans.

Country	Surface Area (km ²)	Population Per 1000	Density (Per km ²)	% of Urban Population	Income Level	GDP (US\$ million)
19. Jamaica	10990	2948	272.2	56	upper middle	14827
20. Martinique	1128	376	354.3	89.1	no data	No data
21. Montserrat	103	5	49.9	9.1	no data	60
22. Puerto Rico	8868	2933	330.7	93.6	high	104219
23. Sint Maarten ³ (Dutch) Saint Martin (French)	34	42	1246.7	100	high	1072
24. St. Kitts & Nevis	261	53	203.2	30.8	high	931
25. St. Lucia	539	183	299.7	18.8	upper middle	1718
26. St. Vincent & the Grenadines	389	111	283.6	52.6	upper middle	780
27. Suriname	163820	581	3.7	66.1	upper middle	3807
28. Trinidad and Tobago	5127	1395	271.9	53.2	high	22105
29. Turks and Caicos Islands	948	38	40.2	93.4	high	1017
30. US Virgin Islands	347	105	298.8	95.8	no data	No data

Data compiled by author from (United Nations, 2020; The World Bank, 2019)

1.7 Organization of the Dissertation

This dissertation is divided into eight Chapters: i) Research Context and Background; ii) Literature Review; iii) Research Design; iv) Plan and Plan Quality Framework; v) Findings of the Content Analysis of the Plans; vi) Results and Discussion of the Surveys; vii) Conclusions; and viii) Recommendations.

Chapter One sets the context for the research by providing a background of the four overarching thematic areas that comprise the research concept: climate change; tourism; planning and plan quality evaluation. The Chapter also includes a brief discussion on the significance of this research as well as the research questions.

³ This only includes data for Sint Maarten.

Chapter Two includes a review of the literature which focuses on climate change, tourism, planning, tourism planning and climate planning. The information presented in this Chapter initially begins with a general discussion on these themes globally and then filters down to the Caribbean-SIDS context. The Chapter also includes a discussion on theories pertinent to the topic noting their underlying assumptions and utility. These theories are further revisited in Chapter Seven where I discuss in detail the extent to which they can provide guidance for improving tourism planning and plan quality in the Caribbean-SIDS basin. This Chapter ends by summarizing the main themes, noting areas of consensus and disagreement among scholars and the major gaps in the literature on the topic.

Chapter Three describes the research design, outlining the factors that have influenced my choice. A discussion on the connection between the research questions and the research approach is included. The various research methods used in the study are discussed, highlighting their advantages, limitations, how I addressed their limitations, and the importance of triangulation. The Chapter also outlines the data analysis techniques used and the challenges that arose during the execution of the research. Chapter Three ends with a summary and reflection section which briefly explains how the COVID-19 pandemic affected the research, and pinpoints some lessons learned in modifying my research design.

Chapter Four focuses on plan quality evaluation which forms the framework for the research. The Chapter starts by examining plans in general and then delves into a discussion on tourism plans and climate plans. Core plan quality principles are explored noting the factors that can affect plan quality. A discussion is provided on the significance of conducting plan quality evaluation. Additionally, the Chapter provides an explanation of the TCCPQ framework, which is accompanied by a graphical illustration.

Chapter Five presents the findings of the content analysis of the region's tourism plans. The Chapter commences with an overview of the tourism plan making customs which are found to influence the quality of the region's tourism plans. The Chapter then segues into the findings of the quality of the region's tourism plans, which are organized into eight thematic areas: (a) fact base, (b) goals, (c) policies, (d) implementation, (e) monitoring and evaluation, (f) interorganizational coordination, (g) participation, and (h) plan organization and presentation. The discussion of the findings of this Chapter is linked to the research questions and is supplemented by graphical illustrations. The Chapter concludes with a summary of the main findings.

Chapter Six offers an in-depth discussion of the results obtained from the surveys. The information presented in this Chapter helps to explain some of the findings of the previous Chapter. The extent to which the findings of this research are similar to the information presented in the literature review is explored. A summary of the key points is provided at the end of the Chapter.

Chapter Seven highlights the salient points of the research. These salient points are organized based on the study's three research questions. The Chapter also outlines the contributions of this research to theory, practice, and research design. In this Chapter, I revisit the theories that I explored in Chapter Two to see how applicable these theories are in providing guidance for a Caribbean-SIDS context, and to frame my conclusions.

Chapter Eight provides recommendations that can aid in improving the quality of tourism plans, and tourism planning in the Caribbean-SIDS region in the context of climate change. These recommendations are presented in two ways: they provide the minimum standards as well as ideal conditions for the region in improving tourism plan quality and

tourism planning practices. Included in this Chapter is a discussion on how theories can guide tourism planning and plan making in the post COVID-19 era in Caribbean-SIDS and elsewhere. In this Chapter also, I discuss how my current research could be expanded by exploring opportunities for future study. The Chapter ends with my overall reflections on the research process.

Chapter Two

2 Literature Review

This Chapter provides a synthesis on climate change, tourism, and climate change planning from a general perspective and then concentrates on the Caribbean-SIDS region. Its purposes are to: (a) contextualize and explain the issues, (b) highlight what is already known to reduce replication of research ideas, (c) identify the inconsistencies or gaps in the literature on the research themes, (d) limit the scope of the research, and (e) provide the conceptual ideas for the study's research design (Creswell, 2014; Dawidowicz, 2010; Efrat Efron & Ravid, 2019; Jesson et al., 2011; Ridley, 2012; Seasons, 2017). In the latter sections of the Chapter, I discuss several planning theories that are pertinent to my research, noting their underlying assumptions, utility, and limitations. The purpose of situating the discussion of these theories in the latter sections of this Chapter is to broadly explain the major thematic areas of the research, and then revisit them in Chapter Seven to assess the extent to which the theories that I have chosen can provide guidance for a Caribbean-SIDS context.

2.1 Climate Change

The Intergovernmental Panel for Climate Change (IPCC) defines climate change as, “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer” (IPCC, 2018, p. 544). This change in the climate occurs because of external factors which create a shift in the balance in the amount of incoming and outgoing energy in the climate system. These external factors are referred to as ‘climate forcers’ as they force the climate to become warmer or cooler over a sustained period based

on the cause of change (Gonzalez-Perez & Leonard, 2017; National Oceanic and Atmospheric Administration [NOAA], 2020). The drivers of climate change are categorized as natural and human (anthropogenic) (IPCC, 2013; NOAA, 2020). Human activities are the principal drivers of climate change (Allen et al., 2018; Letcher, 2016; IPCC, 2013; NOAA, 2020). These changes in the climate and weather systems result in dramatic increases in frequency and severity of droughts, floods, sea level rise, loss of biodiversity, and extreme weather events which have serious implications (Hoegh-Guldberg et al., 2018).

2.1.1 The Implications of Climate Change

Climate change is among the most compelling and complex issues of the modern-day era that threatens to disrupt our human existence and global economic stability (Allen et al., 2018; Kirton & Kokotsis, 2016; The World Bank, 2018; UN, 2018). Since 2013, the World Economic Forum (WEF) has ranked climate change as one of the top five global risks in terms of impact (WEF, 2020). The implications of climate change are broad and unprecedented. These implications will disproportionately affect the poor and most vulnerable, particularly those who reside in small islands, mega cities, coastal regions, and high mountain ranges (Allen et al., 2018; Dryzek et al., 2011; UN, 2018).

Climate change has eroded development gains and impeded sustainable development initiatives (Allen et al., 2018; Gomez-Echeverri, 2018; IPCC, 2014; Kelman, 2017; von Stechow et al., 2016). In 2010, economic losses due to climate change impacts were approximately US\$700 billion, which represented 1% of global GDP and 7% of developing countries' GDP. This figure is expected to increase annually by 2.1% globally by 2030 (Aboulnaga et al., 2019).

If climate change continues unabated, an additional 100 million people could become forced into poverty by 2030 (The World Bank, 2018). The vulnerable and poor are heavily reliant on economic activities like agriculture and tourism that are prone to significant shifts in precipitation patterns and rising temperatures (Misra, 2014; Mycoo, 2018; Thornton et al., 2014). Climate change will make it challenging to eliminate hunger and achieve food security since warming temperatures affect crops, livestock, and fish. Estimates are that there will be a 10% reduction in crops worldwide by 2050. This decline in food production will disproportionately affect developing countries whose hunger indices are high (Sylvester, 2020).

With the projected frequency and intensity of heat conditions, there are implications for health. There will be increase cases of death, post-traumatic stress disorder, mental health problems, and communicable and vector borne diseases (Evans, 2019; Thornton et al., 2014). Displacements caused by extreme weather events could lead to overcrowding and poor sanitation in temporary climate refugee camps (Thornton et al., 2014). Psychological distress could increase among citizens due to involuntary permanent displacements, as people are forced to rebuild their lives and separate from family and friends (Evans, 2019; Hollifield et al., 2011).

The COVID-19 pandemic has resulted in significant shifts in human activities globally causing a reduction in GHG emissions. However, the UN has reported that the 6% reduction in GHG emissions in 2020 due to COVID-19 is inadequate to keep pace with the 7.6 % reduction target annually, which is to keep warming below 1.5°C (United Nations, 2020). There are also fears that as the global economy recovers from COVID-19, GHG emissions will increase and may even exceed previous levels. Some economies have already shown

evidence of this dilemma (United Nations, 2020). With climate change expected to accelerate faster and cause more intense impacts, more innovative approaches and stronger commitments are required globally.

2.1.2 Climate Change and Caribbean-SIDS

In 1994, SIDS were acknowledged as being vulnerable to climate change, climate variability, and sea level rise with the adoption of the Barbados Programme of Action (BPOA)⁴ (United Nations, 1994; UN-OHRLLS, 2017). There have been further milestone developments in Caribbean-SIDS in responding to the potential impacts of climate change as summarized in Table 2-1. While these milestone developments were integral in highlighting the challenges faced, and have assisted in developing policy responses, more aggressive climate change actions are required given the projected impacts on the region (see Cashman & Nagdee, 2017; Nurse et al., 2014; Taylor et al., 2012).

⁴ The Barbados Programme of Action for Sustainable Development emanated from the United Nations Global Conference on Sustainable Development. It provides a framework for planning and implementing policies aimed at promoting sustainable development in SIDS. Fourteen priority areas were identified inclusive of climate change and sea- level rise, natural and environmental disasters, coastal and marine resources, tourism resources among others and the specific actions to needed to address the challenges identified. See: <https://sustainabledevelopment.un.org/conferences/bpoa1994> for additional details.

Table 2-1*Timeline of Major Climate Change Milestones in Caribbean-SIDS*

Year	Milestones
1992	Formal recognition of SIDS as special case for their environment and development in the context of Agenda 21-Rio de Janeiro, Brazil.
1994	Recognition that SIDS are vulnerable to climate change and the prescription of specific actions enabling SIDS to achieve sustainable development - Barbados Programme of Action (BPOA).
2001	Establishment of UN-OHRLLS (advocacy and mobilization of international support and resources for the implementation of the BPOA).
2003	Formation of the Caribbean Community Climate Change Centre (CCCCC) to coordinate the region's climate change responses. Launch of the Providing Regional Climates for Impact Studies Caribbean Model - (PRECIS) to provide information on future climate change scenarios.
2005	Mauritius Strategy for Implementation (MSI) of BPOA - Address remaining gaps in implementation actions for the sustainable development of SIDS.
2014	Declaration of International Year of Small Island Developing States to raise awareness of the adverse impacts of climate change and SLR on SIDS. Mainstreaming of SIDS Accelerated Modalities of Actions (SOMOA) Pathway.
2015	SIDS highlighted the unusual circumstances and vulnerabilities they face with climate change and stated that they wanted the Paris Agreement to reflect this at COP21.
2017	32 SIDS became state parties to the Paris Agreement.
2018	SIDS delegates called for immediate ratcheting up of climate ambition at COP 24, Katowice, Poland. Launch of Caribbean Climate-Smart Accelerator to implement climate solutions so that the Caribbean becomes the world's first climate smart zone.
2019	Submission of the SIDS package to the UN Secretary General's Climate Action Summit to signal island states' commitment to achieving net zero emissions by 2050. Launch of the Climate Risk Management Framework Project by the CCCCC to enhance climate observational and monitoring networks, improve climate-proof water infrastructure & build the capacity of public & private sectors to integrate risk management in development and planning.
2021	The CCCCC received US\$3.2 million from Green Climate Fund (GCF) to implement climate change initiatives in six countries in the region.

Sources: (CCCCC, 2021; Dubrie et al., 2019; Hall, 2019; Mycoo & Donovan, 2017; UN, 1994; UN-OHRLLS, 2017; The Washington Post, 2018; The World Bank, 2018b; Taylor et al., 2012)

Climate change is projected to affect the lifestyles, livelihoods, health, and social well-being of the region's population (UN-OHRLLS, 2017). Caribbean-SIDS nations are amongst the earliest globally to face the impacts of climate change and are predicted to suffer disproportionately despite their relatively negligible⁵ GHG emissions (Cashman & Nagdee, 2017; Kelman, 2010; IPCC, 2018; UN-OHRLLS, 2017; UNWTO, 2014). This situation raises the issue of climate injustice for these nations. Several factors contribute to the region's vulnerability, which make its nations less resilient to the negative impacts of climate change as summarized in Table 2-2. Among the nations, the impacts, vulnerability, and adaptive capacities will vary, due to differences in their social and geophysical characteristics (Nurse et al., 2014).

⁵ Based on UN's 2020 data, most Caribbean-SIDS have negligible emissions, except Trinidad and Tobago which has one of the highest per capita CO₂ emissions of 34.2 exceeding the global average of 5.0.

Table 2-2*Factors that Influence the Vulnerability of Caribbean-SIDS to Climate Change*

Factors	Description
Physiographic	<p>Many are coral islands or volcanic islands</p> <p>Ocean nations</p> <p>Generally flat with some countries either at or below sea level</p> <p>Small land masses - size and topography limit the availability of land</p> <p>Geographic location makes the region prone to adverse weather events</p> <p>Fragile natural environment</p>
Economic	<p>Narrow resource base</p> <p>Relatively isolated and far from large markets</p> <p>Small and undiversified economies with limited economies of scales</p> <p>Many countries suffer from in-debt distress</p> <p>Inadequate borrowing opportunities</p> <p>Limited fiscal space and prospects for long-term growth making these nations extremely susceptible to negative global economic shocks</p> <p>Their remoteness affects their ability to be part of global supply chain, increases import costs, and limits their competitiveness</p>
Built Environment	<p>High per capita overhead cost for infrastructure development</p> <p>Inadequately maintained infrastructure such as seawall and drainage systems</p>
Social/ Institutional	<p>High population densities and growth rates</p> <p>Rapid rates of urbanization</p> <p>Limited human resource and institutional capacities</p> <p>Numerous instances of informal development</p> <p>Primate cities located in vulnerable coastal areas which are homes to majority of the population (more than 50% of the population live within 1.5 km of the coast), infrastructure, and main economic activities e.g., tourism</p> <p>High dependence on climate sensitive natural resources and tourism</p> <p>Existing land use practices are rooted in unresolved land conflicts</p> <p>Outdated physical plans and policies which are minimally enforced</p> <p>Planning and environment agencies suffer from weak enforcement</p>

Sources: (Gencer, 2013; Mycoo & Donovan, 2017; Nurse et al., 2014; Organisation for Economic Corporation and Development [OECD], 2018; OECD & World Bank, 2016; Stock, 2014; UN-OHRLLS, 2017; UNWTO, 2020)

2.1.2.1 The Impacts and Implications of Climate Change on Caribbean-SIDS

Like other SIDS, the impacts of climate change in the region will depend on the conditions and vulnerabilities of the respective nations. In general, the projected and observed impacts of climate change on the region are summarized in Table 2-3.

Table 2-3

Observed and Projected Impacts of Climate Change on Caribbean-SIDS

Coastal	Terrestrial	Human
Sea level rise	Saline intrusion degrading ecosystems	Environmental degradation and loss of habitat
Marine inundation of low-lying areas	Altitudinal species shifts	Reduced tourism
Shoreline erosion	Degradation of groundwater quality	Human susceptibility to climate-induced diseases
Coral bleaching	Rapid salinization of ground water	Casualties and damage during extreme events
Acidification of surface water		Re-location of communities/migration
Degraded coastal fisheries		
Degradation of mangrove and seagrass		

Source: (Nurse et al., 2014)

The vulnerabilities of the region are interconnected and mutually reinforcing; this limits options for climate change responses. Climate change impacts (as listed in Table 2-3) can impede efforts aimed at addressing systemic socio-economic problems and can produce new development challenges for the region. Revenue will have to be redirected to address relief efforts in the event of a serious disaster (Bishop & Payne, 2012; Hassan et al., 2019; Mycoo, 2018; Popke et al., 2014). Several Caribbean-SIDS are among the top 25 most vulnerable to disaster per capita, as the destruction caused by previous disasters have exceeded the size of their economies (Hassan et al., 2019). Hence, the region is characterized

as amongst the most vulnerable groups of countries globally to climate change (Allen et al., 2018; OECD & World Bank, 2016; UN-OHRLLS, 2017).

Sea level rise (SLR) is a serious threat to the region's low-lying coastal areas (Dubrie et al., 2019; Mycoo & Donovan, 2017; UN-OHRLLS, 2017). Storm surges and wave action due to SLR have penetrated inland and have altered many coastal communities and ecosystems (Dubrie et al., 2019; Hoegh-Guldberg et al., 2018). In some nations, a significant percentage of the population resides in low elevation coastal zones (LECZ), which are less than 10 metres above sea level, for example in Bahamas (100%) and Suriname (76%) respectively (Mycoo, 2018; UN-OHRLLS, 2017). Climate change poses an existential threat to these low-lying areas; the IPCC's Fifth Assessment Report (AR5) has projected higher levels of SLR in the future.

Effective response to climate change calls for significant and continuous decrease in GHG emissions. Caribbean-SIDS have limited control in this respect as their collective emission is marginal. The feasibility and practicality of governance structures and policies on emissions trading and carbon offsets will affect the region's capacity to manage the changes required throughout the region. According to Scott et al. (2016) its tourism sector depends on long haul travel. Practices and policies that are developed under international climate change governance regimes are sometimes not in the interests of the region. For instance, the "1.5°C to Stay Alive" campaign undermines the region's economic development goals because the nations are required to modify their current development models and pursue less-resource intensive capitalists development models (Sealey-Huggins, 2017). The 1.5°C is only achievable if aviation essentially ceases, but the COVID-19 pandemic has indicated that

under this scenario, the region's economy will be severely impacted (see Gössling et al., 2020).

Even if GHG emissions were to be stabilized, the impacts of climate change and SLR will persist (UNEP, 2014). Procrastination will make it more challenging and costly to manage these impacts in the future (WEF, 2020). Indeed, the cost of inaction is estimated at US\$ 22 billion annually and could increase to US\$ 46 billion annually by 2050 (UN-OHRLLS, 2017). Adaptation and resilience building are thus perceived as the most feasible options for the region (Betzold, 2015; CAP, n.d.; Mycoo, 2018; Robinson, 2019; Taylor et al., 2012). According to the IPCC, “adaptation is the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities” (IPCC, 2018, p. 542). Resilience is:

the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation (IPCC, 2018, p. 557).

Many of the region's nations do not have the resources to adapt effectively or to build resilience. Assistance is provided when a crisis occurs rather than before, which does not allow for informed decision-making. Decision-making on climate change responses for the region are often externally controlled (Kelman, 2010). Therefore, the discourse on climate justice in the region should be expanded to include issues of capacity building and empowerment, to facilitate greater control in climate change decision-making for these nations.

The IPCC concluded that the scale of climate change will depend on GHG emissions from key economic sectors including tourism (Hoegh-Guldberg et al., 2018). Taylor et al. (2012) recommended that a sectoral approach is the most effective response for the region as it relates to adaptation in the tourism, water, and agricultural sectors, given the resource constraints and the pervasiveness of the region's climate sensitivity. Projections are that up to 29% of major tourist resorts in the Caribbean could become partially or fully inundated with a one-metre level sea rise due to climate change. About 49% to 60% of resort properties could experience significant beach erosion (Scott et al., 2012). The sector could suffer a decline in visitor expenditures from US\$25 billion to US\$15 billion by 2050 based on current trajectory (UN-OHRLLS, 2017). These projections reiterate the need to engage in sound planning practices to minimize risks and safeguard the region's tourism sector against the impending climate change challenges. In summary, it is reasonable to conclude that tourism must be an integral part of the effective response to climate change for Caribbean-SIDS given its heavy reliance on the sector.

2.2 Tourism

Tourism is a critical lens through which our perception of the world is shaped (Lew, 2018; Mowforth & Munt, 2016). Although tourism is all embracing and thus captures the activities and industry that surround the tourists' experience, tourism is defined in more precise terms as:

the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited (UN et al., 2001, p. 1).

In recognition of the capacity of tourism to address many of the common global challenges, the UN General Assembly declared 2017 as the International Year of Sustainable Tourism for Development (UNWTO & UNDP, 2017). Several developing countries have positioned tourism as an essential element of their development strategies (Bishop, 2010; Sharpley & Telfer, 2015; UNWTO et al., 2016). These countries have also committed to achieving the SDG 2030 Agenda on tourism, as evidenced in 64% of the submitted Voluntary National Review reports (UNWTO & UNDP, 2017). A key reason for pursuing tourism as a development strategy is that it is less capital intensive in terms of its inputs for development when compared with other sectors because it utilizes existing resources (Mudacumura et al., 2017).

Tourism is a large economic sector world-wide, accounting for 10% of jobs, 10.3% of global GDP and 7% of world exports (UNWTO & UNDP, 2017; WTTC, 2019, 2020). In 2019, the tourism sector outpaced global economic growth in terms of GDP for the ninth consecutive year with 3.5% compared with global growth of 2.5% (WTTC, 2020). COVID-19 will have massive and transformative impacts on tourism; some scholars have alluded to the shift from over-tourism to non-tourism (see Gössling et al., 2020). Estimated job losses in the sector is US\$100.8 million and GDP losses are projected as US\$2.7 trillion (WTTC, 2020). However, past events such as Severe Acute Respiratory Syndrome (SARS), natural hazards, and terrorism proved that the sector is resilient (Gössling et al., 2020; UNWTO et al., 2008; UNWTO, 2019). Even though recovery time in the sector from major shocks declined from twenty-six (26) months to ten (10) months between the period 2001 to 2018, there has been a corresponding increase in economic impacts (Rosselló et al., 2020; WTTC, 2020). This finding therefore raises the question of the extent of resilience of the sector and

highlights the need for crisis readiness and preparedness from external shocks. Further, there is uncertainty regarding the current adaptive capacity to deal with projected climate change impacts and the potential costs and benefits (Scott, 2021).

2.2.1 Impacts of Tourism

The impacts of tourism vary spatially and affect stakeholders differently. While tourism is often associated with its capacity to stimulate economic development (Brida et al., 2016; Cannonier & Galloway Burke, 2019; Dogru & Bulut, 2018; Telfer & Sharpley, 2016), it also results in negative impacts (see Table 2-4).

Table 2-4
Impacts of Tourism

Thematic Area	Positive Impacts	Negative Impacts
Economic	<ul style="list-style-type: none"> Contributes to economic growth and development Improves local economy and creates employment Generates tax revenue for national services Facilitates the forging of alliance with other sectors to stimulate economic growth Provides a source of income for unskilled workers and vulnerable groups Fosters economic regeneration for localities that suffered a decline in their traditional industry 	<ul style="list-style-type: none"> Increases price of goods and services Creates seasonal employment and low wages Leads to economic leakages and profit repatriation particularly in developing countries Reduces benefits accrued for locals since resorts are owned and controlled by large international chains in more advanced economies

Thematic Area	Positive Impacts	Negative Impacts
Physical	Provides co-benefits for host communities e.g., improvement of transportation, communication etc. Helps with the preservation of historic buildings and monuments Enhances the aesthetics of the area	Alters the natural landscape Creates burden on host communities' infrastructure
Social	Improves quality of life Assists with cultural exchange Creates educational experiences Increases demands for higher levels of services	Prevents locals from accessing natural resources Creates social disparities Erodes native cultures and leads to cultural commodification Exploits vulnerable groups
Environmental	Helps promote environmental awareness Aids with the conservation of significant natural resources	Leads to environmental degradation Increases pollution Destroys flora and fauna and reduces ecosystem services Contributes to negative resource consumption e.g., Freshwater, energy, and land cover changes

Sources: (Anderson, 2013; Gössling et al., 2009; Mitra, 2019; Mowforth & Munt, 2016; Ramos et al., 2016; Sharpley & Telfer, 2015; Sinclair-Maragh & Gursoy, 2015; Telfer & Sharpley, 2016; WTTC, 2019)

2.2.2 Tourism in Caribbean-SIDS

During the 1960s, the region experienced a massive economic transformation due to the outward market-oriented growth and structural adjustment programs of the UN, World Bank, and the International Monetary Fund (IMF) (Adu-Ampong, 2019; Duval, 2004; Pattullo, 2005; Spencer, 2019). The economic development policies and borrowing conditionalities of these multilateral agencies resulted in a shift from agriculture and indigenous industries to international tourism (Scott, 2015; Spencer, 2019).

Caribbean-SIDS are amongst the most sought-after tourism destinations worldwide because of their biodiversity and range of ecosystems (CDB, 2017; UNWTO, 2020). Their

location and exceptional natural and cultural resources provide them with a strong competitive advantage (UNWTO, 2014). While coastal and maritime tourism comprise the two main forms of tourist activities in the region (Mycoo, 2018; UNWTO, 2014), there are other tourism offerings as depicted in Table 2-5.

Table 2-5

Alternative Tourism Offerings in Caribbean-SIDS

Type of Alternative Tourism	Countries
Ecotourism	Belize, Guyana, Suriname
Heritage and Culture	Barbados, Belize, Jamaica, Trinidad and Tobago
Culinary	Anguilla, Cayman Islands, Jamaica, Suriname, Turks and Caicos
Events and Sport	Antigua and Barbuda, Barbados
Education	Dominica, Grenada, Antigua and Barbuda, St. Kitts and Nevis
Medical	Barbados, Cayman Islands, Jamaica
Yachting	Antigua and Barbuda, British Virgin Islands, Grenada, St. Lucia, St. Vincent and the Grenadines

Source: (CDB, 2017)

In 2019, the region outpaced the world’s average of 10.3% tourism contribution to GDP, achieving 13.9% of GDP and generating 2.8 million jobs which represented 15.2 % of country employment (WTTC, 2020c). Of the 25 Caribbean-SIDS for which data were available, 60% (15) of them derived a quarter or more of their GDP from tourism in 2019 (Table 2-6). Aruba’s tourism sector contributed the highest to GDP with 74%, though the country experienced a decline from 98%, the highest globally in 2018. The majority (80%) of Caribbean-SIDS increased their tourism sector’s contribution to GDP growth in 2019 (Table

2-6). Dominica, Anguilla, and St. Kitts Nevis were ranked as the top three globally with GDP tourism growths of 43.6%, 19%, and 14.6% respectively in 2019 (WTTC, 2020b).

Although the region has experienced significant growth in tourism, its tourism market is fragile, and its performance is strongly influenced by external forces. COVID-19 will significantly affect the region's tourism sector. Preliminary statistics revealed a 50% reduction in tourism arrival in the region from January to May 2020 (UNWTO, 2020b).

Similarly, BREXIT will have implications for the region's tourist sector, particularly for nations that depend on the United Kingdom (UK) such as Barbados, St. Lucia, and St. Kitts and Nevis, since the weakening of the pound could make it more expensive for UK visitors to travel to these countries (CDB, 2017; Commonwealth Secretariat, n.d.). As noted in section 2.1.2, climate change will have serious implications for the region's tourism sector. Alternative offerings of tourism (as mentioned in Table 2-5) will be critical for the region in enhancing its sustainable tourism development pathway, in view of the projected climate change risks.

Table 2-6*The Contribution of Caribbean-SIDS Tourism to GDP and Employment (2019)*

Country	Percent of GDP 2019	Percent of Total Employment 2019	Percent of GDP Growth 2019
Anguilla	37.1	51.3	+19.0
Antigua and Barbuda	42.7	90.7	+7.6
Aruba	73.6	84.3	+1.6
Bahamas	43.3	52.2	+5.1
Barbados	30.9	33.4	+9.7
Belize	37.2	39.3	+5.0
Bermuda	18.7	23.0	+2.6
Bonaire, St, Eustatius & Saba	No data	No data	No data
British Virgin Islands	57.7	66.4	+7.7
Cayman Islands	25.5	33.2	+3.1
Cuba	1.0	11.0	-3.1
Curaçao	No data	No data	No data
Dominica	36.9	38.7	+43.6
Dominican Republic	16.3	17.3	+2.0
Grenada	40.5	42.9	-9.6
Guadeloupe	9.5	10.7	+4.0
Guyana	4.4	4.7	+8.2
Haiti	8.4	8.6	-10.0
Jamaica	31.1	32.8	+7.1
Martinique	7.8	8.9	+5.0
Montserrat	No data	No data	No data
Puerto Rico	4.2	10.4	+10.0
Sint Maarten/ Saint Martin	No data	No data	No data
St. Kitts & Nevis	28.6	59.1	+14.6
St. Lucia	40.7	78.1	+4.2
St. Vincent and the Grenadines	28.6	45.2	+9.0
Suriname	2.6	2.8	-24.3
Trinidad and Tobago	7.8	8.5	-2.9
Turks and Caicos Islands	No data	No data	No data
US Virgin Islands	55.5	68.8	-2.4
Former Netherlands Antilles	23.5	25.7	+1.8

Notes: Data compiled by author from WTTC's (2020) Country Research Key Highlights Reports

2.2.2.1 The Positive Impacts of Tourism on Caribbean-SIDS

Tourism has contributed to the region's social and economic development (Cannonier & Galloway Burke, 2019; Gunter et al., 2018; UN-OHRLLS, 2017). Revenue generated from tourism through taxes has been used to support infrastructure development in other sectors, provide basic services for citizens, and repay national foreign debts (Hall & Lew, 2009; Pattullo, 2005). Investments in road infrastructure to service resort towns have benefited local residents and have expanded and opened trading in these areas (Pattullo, 2005). Enhancement of utility power systems has created spill-over effects for communities adjacent to tourist areas (Gmelch, 2003). However, there have been complaints about the elevated levels of hospitality taxes that tourists are forced to pay to help defray these costs (Pattullo, 2005; Ruprah & Sierra, 2016). This can be a deterrent for tourists who may then seek alternative destinations.

The sector has hosted several musical festivals and international sporting events such as track and field, cricket, and football in the region (Rommen & Neely, 2014; Tyson et al., 2016). These events have led to the development and improvement of cultural and international sporting facilities. Hosting the 2007 International Cricket World Cup in the region helped foster greater communication, built cooperation, and strengthened unity among the nations (Jordan et al., 2011).

2.2.2.2 The Negative Impacts of Tourism on Caribbean-SIDS

Despite the positive impacts of tourism, many Caribbean-SIDS citizens live in impoverished conditions (WIB, 2019). Some citizens do not have access to basic living necessities such as piped water, yet local hotels have unlimited access to these scarce resources (Pattullo, 2005). The influx of tourists in coastal resort areas has created challenges

for waste treatment and disposal. Due to the inadequate handling of the waste, some of it has escaped in the marine environment (Simcock, 2018). Tourism has placed a huge demand on public services and amenities, and regional governments have been unable to generate sufficient revenue to fund system expansion (Gmelch, 2003; Hall & Lew, 2009; Kennedy, 2018; Pattullo, 2005).

Residential developments in resort towns have increased; however, these are purchased by tourists as investments and vacation homes (Hsu & Gartner, 2012). These developments have reduced the supply of land available for agriculture and other land use activities. As a result, many local residents have lost their financial independence and their social cohesion which were facilitated through their engagement in agricultural activities (Duval, 2004; Pattullo, 2005). Hotel developments have affected the availability and price of land, making it difficult for locals to compete with resort investors in the land market (Gmelch, 2003; Hall & Lew, 2009; Pandey, 2011; Pattullo, 2005).

Up to 80% of the income earned from Caribbean tourism activities is directed to cover national import bills and repatriation (Kennedy, 2018; Nixon, 2015; Pandey, 2011; Spencer, 2019). While the region's tourism sector has grown exponentially, benefit to the local economy has been minimal in most instances. Many of the jobs created in the region's tourism sector are seasonal and low paying (Kennedy, 2018; Pandey, 2011). Statistics produced by regional governments and international tourism organizations on the region, do not capture the net impact of the sector. For example, hotel construction implies more jobs for local manufacturers and suppliers in the construction industry. This is not always the case in the region as hotel investors are foreigners who often utilize architectural and general contractors from international companies (Pandey, 2011). Foreign ownership and domination

of tourism facilities have led to leakage and dominance of managerial positions by expatriates (Pandey, 2011; Weeden, 2015). In the Bahamas, local labourers only received 15% of the total labour expenses with the construction of Baha Mar - one of the largest hotel constructions in the western hemisphere (Sweet, 2015). Additionally, building “walled” resort enclaves is common, intentionally causing little interaction between locals and tourists to experience cultural exchanges (Nixon, 2015; Pandey, 2011). These enclaves hide development problems such as unmet basic services in the region (S raphin & Butcher, 2018; Weeden, 2015).

2.2.2.3 Challenges Confronting Caribbean-SIDS Tourism

There are four main challenges that confront the region’s tourism sector: (a) responding to the impacts of climate change, (b) using tourism as a conduit for sustainable development of the territories, (c) linking tourism with air transportation policies to increase connectivity in the region while reducing emissions, and (d) increasing the competitiveness while simultaneously reducing vulnerability in the sector such as COVID-19, through niche marketing and product diversification (CDB, 2017; UNWTO, 2020). These challenges have direct and indirect links to climate change. Any attempt to address these issues must be rooted in developing and implementing strong climate policies and actions within the sector rather than the traditional marketing and positive media coverage approaches.

2.3 The Linkages Between Climate Change and Tourism

A dynamic relationship exists between climate change and tourism. Studies have mapped and examined the climate change-tourism landscape using scientometric software which measures the frequency and impact of published research (Fang et al., 2018) and

systematic reviews of the related literature (Becken, 2013; Nickerson et al., 2011). Research on climate change and tourism focuses on: (a) the impacts of climate change on tourism, (b) necessary adaptation, (c) evaluating the vulnerability of the tourism industry, (d) tourism behaviour and demand in response to climate change and (e) emissions reductions in the sector (Fang et al., 2018). There is emerging research on the impacts of tourism policy on climate change and vice versa (see Hambira et al., 2020; Pentelow & Scott, 2011; Scott et al., 2016) and climate change and tourism policy integration (see Becken et al., 2020; Santos-Lacueva & Velasco González, 2018).

Tourism is a cause (driver) of anthropogenic climate change and is at risk (receptor) from climate change (Demiroglu & Hall, 2020; Loehr, 2020; Michailidou et al., 2016; Scott & Gössling, 2018; UNWTO, 2018b) (see Figure 2-1). The scale of climate change depends chiefly on GHG emissions from economic sectors including tourism (Hoegh-Guldberg et al., 2018). Acknowledgement by the IPCC of the tourism sector's role in climate change can be traced back to its first report. The IPCC's AR4 report strengthened this acknowledgement by outlining the impacts, contribution, and mitigation requirements of the sector in regional chapters.

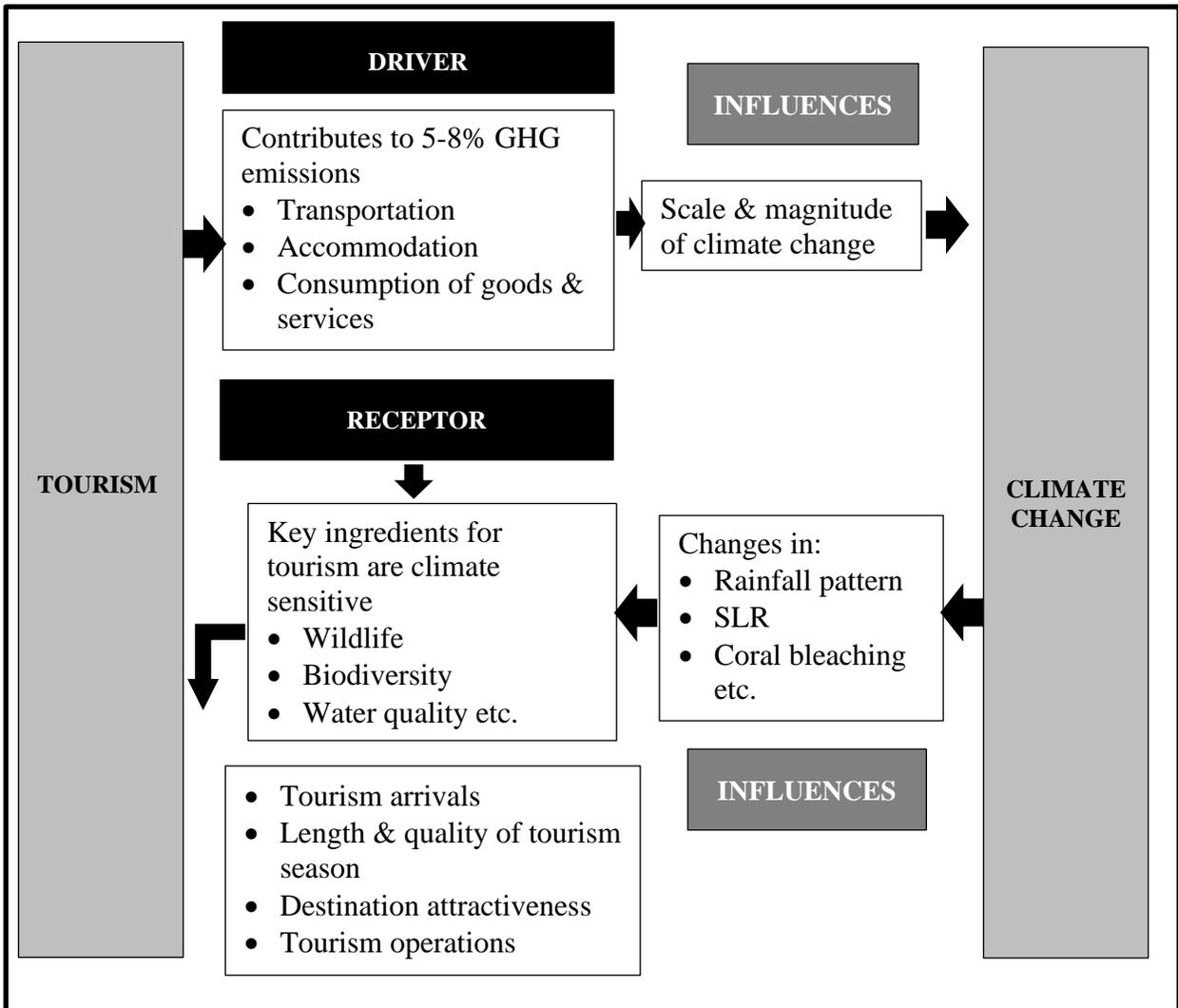
Most of the energy used in the tourism sector comes from fossil fuels (Odimegwu & Francis, 2018). Tourism-related activities account for approximately 8% of global GHG emissions (Lenzen et al., 2018). These emissions are chiefly through transport operations (75%) and accommodation operations (20%) via heating, air conditioning, maintaining recreational facilities among others (UNWTO, 2018b). It is estimated that by 2050, future emissions from travel and tourism could increase by 169% from the base year 2010 if there is inaction (Scott & Gössling, 2018).

At the conclusion of the Second International Conference on Climate Change and Tourism in 2007, it was expressed that, “[climate change] must be considered the greatest challenge to the sustainability of tourism in the 21st century” (UNWTO et al., 2008). A significant share of the environmental resources that are key ingredients for tourism are climate sensitive. Among these key resources are wildlife, biodiversity, and water quality (Odimegwu & Francis, 2018; UNWTO et al., 2016), hence the characterization of the sector as climate sensitive (Fang et al., 2018; Layne, 2017; Scott et al., 2012; UNWTO et al., 2016). In SIDS, climate is the primary resource of the tourism sector and therefore determines the length and quality of the tourism season and the attractiveness of these destinations (UNWTO & UNDP, 2017). Climate affects certain tourism operations, such as water supply, heating, and cooling costs, and access to stable insurance coverage, all of which impact profitability (UNWTO, 2018).

As coastal tourism is among the largest tourism markets globally (Scott & Verkoeyen, 2018), the pristine form of coastal resources is paramount. These resources face significant pressures from land conversions, industrial development resource overuse, invasive species, pollution, among others. Climate change can intensify these problems via sea level rise, shifts in rainfall patterns, and coral bleaching, influencing the viability of the tourism destination (Gössling et al., 2018). Overdevelopment in some tourist areas has resulted in harm to biodiversity and the landscape, leading to loss of habitat, degradation of ecosystems, and damages to coral reefs. These conditions make tourist areas particularly exposed to severe climate change impacts (UNWTO, 2012).

Figure 2-1

The Linkages Between Climate Change and Tourism



Sources: (Loehr, 2020; Michailidou et al., 2016; Odimegwu & Francis, 2018; Scott & Gössling, 2018; UNWTO & ITF, 2019)

2.4 Planning

We now shift our attention to the roles and types of planning theories and interventions to explore the nature of the relationship between climate change, tourism, and planning.

Planning scholars acknowledge the difficulty in defining the term “planning” (see Alexander, 2016; Friedmann, 1998; Yiftachel & Huxley, 2000). While existing definitions of planning

are generic in their expression, they allude to planning as a procedural, collective objective setting, and strategy-making activity (See Box 2-1). For this dissertation, planning is defined as the conscious decision made by those in authority to provide activities and services related to the built, social, economic, and physiographic environments that result in wider societal spatial and temporal consequences. Planning cuts across several sectors and so is an integrative and multi-disciplinary activity that focuses on curative problem-solving impacts (Hurlimann & March, 2012; Priemus & Davoudi, 2016). Accordingly, there are various specializations in planning. The focus of this dissertation is on tourism planning and climate action planning as discussed in the subsequent sections.

Box 2-1

Various Definitions of Planning

“Technical exercise in the production of things, thereby drawing on technical expertise” (Faludi, 2000, p. 302).

“...part of the social deliberative and interactive process which links aims to action, and which transforms ideas into realities” (Alexander & Faludi, 1989, p. 131).

“... conscious intervention of collective actors” - roughly speaking, state, capital and organized civil society - in the production of urban space, so that outcomes may be turned to one or the other's favour” (Friedmann, 1998, p. 251).

“public production of space (i.e., policies and practices which shape the urban and regional environment under the auspices of the modern state” (Yiftachel & Huxley, 2000, p. 907).

2.4.1 The Connections between Planning, Tourism Planning, and Climate Planning

There are strong connections between planning in general, tourism planning, and climate planning as demonstrated throughout this research and summarized in Table 2-7.

While each form of planning has had various external influences, their manifestations influenced each other. Further, although these types of planning are at various stages in their development, the climate change theme is emerging in their practice and scholarship.

Table 2-7

The Connections Between Planning, Tourism Planning, and Climate Planning

Dimensions	Planning	Tourism Planning	Climate Planning
Origins	Problems caused by industrial revolution Incapacity of infrastructure to deal with influx of persons from rural to urban areas	Greater disposable income Reduction of working hours Improvements in travelling conditions brought on by industrial revolution	Mostly anthropogenic Heavy dependence on fossil fuel
Influences	Architecture, civil engineering, public health	Business, tourism as regional development strategy	Land use management Coastal planning
Level of development	Strong planning schools	Few planning programs focus on tourism planning	Emerging curricula and programs
Aims	Manage competing demands for land - public health & safety	Visitor satisfaction focus	Low carbon resilient communities/sectors
Output/Plans	Master plans, local area plans, site plans, regional plans, national plans; emerging integration of climate theme	Master plans, strategic plans, management plans; emerging integration of climate theme	Climate action plans; can be stand alone or integrated

Sources: (Boswell et al., 2012; Costa, 2001)

2.4.2 Planning in Caribbean-SIDS

Caribbean-SIDS adopted their urban and regional planning legislation and practices from the former colonizing nations (Frojmovic et al., 2013; Gencer, 2013; Verrest et al., 2013). In the former Spanish colonies, planning practices are rooted in the Law of the Indies (Gencer, 2013). Planning legislation and procedures in Anglo-Caribbean-SIDS are modeled on the British Town and Country Planning Act of 1947 (Toppin-Allahar, 2001; Polar & Mohammed, 2016). The legislative planning instruments in respective Anglo-Caribbean territories empower the Minister with responsibility for town and country planning to guide spatial development. Planning in the region reflects the top-down technical and expert driven approach. It has been criticized for not being responsive to contemporary planning needs (Mycoo, 2017; Polar & Mohammed, 2016; Toppin-Allahar, 2001) due to several challenges as summarized in Table 2-8.

Table 2-8

Major Challenges Confronting Caribbean-SIDS Central Planning Systems

Thematic Areas	Challenges
Legislative, Regulatory and Institutional Arrangements	<ul style="list-style-type: none"> Outdated planning legislation and regulations that reflect colonial times Lack of enforcement of planning regulations Lack of plan development and implementation Lengthy approval processes which lead to high development costs Lack of coordination among agencies with responsibilities for planning Absence of legislation that specifically governs planning practice and allied built environment professionals
Resource Constraints	<ul style="list-style-type: none"> Limited human, technical, and financial capacities Lack of access to new planning tools and technology Poor data quality for planning Widespread hiring of persons in planning posts who are not trained as planners

Political Political interference and strong private sector lobbying that undermine the functions of planning authorities

Sources: (ECLAC, 2017; Frojmovic et al., 2013; Kirk et al., 2019; Mycoo & Donovan, 2017; Polar & Mohammed, 2016; Toppin-Allahar, 2001; Verrest et al., 2013)

These challenges have resulted in the circumvention of the formal planning system in the region, as planning is viewed as a bureaucratic regulatory hurdle, instead of a crucial resource management mechanism (Kirk et al., 2019). The circumvention of the formal planning system has led to the emergence of informal and unplanned developments. Informal developments are worrisome because they are mostly located on marginal lands and in areas that are deemed vulnerable to sea level rise and other extreme weather events (Frojmovic et al., 2013; McHardy & Donovan, 2016; Mycoo, 2017; Polar & Mohammed, 2016). These informal developments, along with other planning challenges have inhibited innovation and relevance in planning practice, which has made it difficult to enhance the resilience of the region to phenomena such as climate change.

In the absence of professional planning bodies and the limited planning capacities in some of the nations, the Caribbean Planners Association (CPA) has supported capacity building and promoting best practices as host of the annual Caribbean Urban Forum (Caribbean Network for Urban Land Management [CNULM], 2020; Mohammed et al., 2016). While there have been steps to improve regional planning mechanisms, there is a need for long-term plans and cross sectoral and regional collaboration. These plans and collaborative efforts are needed to enhance the legislative and institutional frameworks for the shared challenges confronting the region, including climate change. A good starting point for this collaboration is through tourism planning, since tourism is the principal economic sector in the region, and it is highly vulnerable to climate change.

2.5 Tourism Planning

There are variations in the definition of tourism planning. Getz (1986, p. 3) defined it as, “a process based on research and evaluation, which seeks to optimize the potential contribution of tourism to human welfare and environmental quality.” Edgell & Swanson (2013, p. 245) perceived it as a template stating that it is, “a road map to lead tourism related organizations or destinations from their present level of tourism development to where they would like to be.” In other instances, its definition has an economic focus; for example, Lickorish & Jenkins (2011, p. 75) suggested that “it is concerned with an evaluation of assets and matching them to a potential market.”

These definitions portray tourism planning as a process based on research and evaluation that is concerned with goal setting to achieve a future desirable tourism outcome. Tourism planning therefore draws on some elements of rational comprehensive planning (Lew, 2007; Rahmafritria et al., 2020). The purpose of tourism planning is to reduce the negative outcomes associated with tourism while simultaneously increasing positive outcomes (Andriotis et al., 2019). For this research, tourism planning is defined as the conscious decision made, informed by research and critical evaluation of resources and assets, to develop and implement plans, policies, and actions that are geared toward optimizing the positive outcomes on the social, economic, environmental, or physical character of tourism destinations and the wider tourism sector, while simultaneously reducing or eliminating where possible, negative outcomes and ensuring visitor satisfaction.

2.5.1 The Influence of Tourism Practices and Theories on Tourism Planning

Tourism planning was perceived as part of the domain of town (i.e., urban and regional) planning until the 1920s with a focus on attracting new hotel development,

providing transportation access, and organizing promotion campaigns (Costa, 2001). While urban and regional planning centred on the rational paradigm in the 1950s to 1970s, tourism planning focused on maximizing economic growth (Getz, 1986) as the field became dominated by entrepreneurs whose interests were rooted in short-term profit maximization (Adu-Ampong, 2019; Costa, 2001). Tourism planning was hinged on the principles of modernization theory (Awang et al., 2009; Harrison, 2015).

Tourism centred on creating multiplier effects in developing countries through job creation and local economic development as alluded to earlier. Consequently, there was rapid expansion of the travel and tourism markets in these developing countries which led to uncontrolled development and altered the development progress of these nations (Adu-Ampong, 2019; Costa, 2001). Criticisms emerged that the models that guided theory development in tourism planning were largely project and development focused, rather than comprehensive in style and content. As a result, we see academic discourse concentrated on planning for tourism and area tourism development rather than tourism planning (Getz, 1986).

An alternative thinking model of tourism planning surfaced based on theories proposed by Baud-Bovy (1982) and Getz (1986). Baud-Bovy's theory of product analysis sequence for outdoor leisure planning (PASOLP) proposed that tourism planning should not be limited to an economic orientation but should also take into consideration the institutional structures and tourism resources of a country. Getz (1986) developed an integrated system model of tourism theory and practice in which tourism planning, in addition to its economic rationale, would include both a physical and social perspective. Based on these models, the focus of tourism planning shifted away from being physical to a more strategic orientation (Buhalis &

Costa, 2011). Since then, several tourism planning related journals have developed (see Appendix 2-1).

Much of the research presented in tourism journals focuses on tourism development rather than planning tourism resources in a collaborative, comprehensive, and integrated manner. This could be attributed to the rise in post-modernist thinking. Post modernism is rooted in skepticism, subjectivity, and distrust of grand ideologies, and so is a reaction against the Western assumptions and values of the modern period (Duignan, 2019). In Chapter Seven of this dissertation, I explore how tourism planning models and theories are applicable in providing climate change responses in the region's tourism sector.

2.5.2 Tourism Planning and Development in Caribbean-SIDS

I argue that the tourism planning model pursued in the Caribbean has treated tourism as an end rather than a means to development. The traditional focus has been on building infrastructure and adopting a western style of “development” and “modernization” to increase tourism arrivals, instead of developing quality tourism and improving citizens' well-being (Maerk & Boxill, 2000; Pattullo, 2005). Advances in air transportation and the construction of airports across the region in the 1960s paved the way for rapid growth in the tourism sector (Duval, 2004; Gmelch, 2003; Pattullo, 2005; Spencer, 2019). Since then, tourism planning and development in the region have been characterized by short-term time horizons which makes it difficult to grow the sector in a coordinated manner (Pattullo, 2005).

In most Caribbean-SIDS since the 1960s, foreign-based aid was sought, and loans obtained with high interest rates to support tourism initiatives (Maerk & Boxill, 2000; Pattullo, 2005). Foreign investment was encouraged as locals lacked the financial resources, experience, and competence to engage in tourism development (Mowforth & Munt, 2016;

Sinclair-Maragh & Gursoy, 2015). This led to the control of planning, ownership, and management of tourism by foreign investors, a pattern that has shaped the socio-cultural and socio-political landscapes of the region ever since (Nixon, 2015; Sinclair-Maragh & Gursoy, 2015).

These investors purchased and developed prime lands along the Caribbean's coastal strip in a haphazard manner in the absence of tourism plans (Duval, 2004). The result is evident in the uncoordinated transformation of the region's prime coastlines such as Jamaica's north coast and the west and south coasts of Barbados, and sporadic and informal developments (Bishop & Payne, 2012; Gmelch, 2003; Pattullo, 2005). This concentration of tourism activities along the region's coasts, together with sea level rise and coastal erosion has led to 'coastal squeeze'⁶ (Lithgowa et al., 2019; Mycoo & Donovan, 2017; Pulwarty et al., 2010). With current and projected climate change scenarios, coastal squeeze will exacerbate flooding in these resort areas leading to serious implications for the tourism sector (Lithgowa et al., 2019).

2.6 Climate Action Planning

Professional planning bodies worldwide such as the International Society for City and Regional Planners (ISOCARP), Planners for Climate Action (P4CA), Commonwealth Association of Planners (CAP), and Caribbean Planners Association (CPA), have acknowledged the importance of planning in responding to climate change, as evidenced by their numerous publications and conference themes. The impacts of climate change can be minimized by modifying development patterns and transport systems, promoting energy

⁶ Coastal squeeze is referred to as, "the chronic loss of coastal habitats landward associated with long-term processes such as sea level rise, land subsidence, sediment deficit and the occupation of space by infrastructure" (Lithgowa et al., 2019, p. 43).

efficiency, and enhancing resilience and adaptive capacities (Frojmovic et al., 2013; Hurlimann & March, 2012). The IPCC has noted that the employment of land use and land use changes are essential mitigation mechanisms in the struggle to limit global warming to 1.5° C (see Hoegh-Guldberg et al., 2018). Research has found that land use related decisions taken by municipalities can reduce emissions by 50-90% (Ontario Ministry of Environment and Climate Change [OMOECC], 2016).

Many jurisdictions are integrating mitigation and adaptation actions and have decided to prioritize policies that can produce “co-benefits⁷” beyond the scope of climate change (Baynham & Stevens, 2014; Grafakos et al., 2019). These actions fall under the purview of “climate action planning.” Climate Action Planning is also referred to as climate change planning or climate change-informed planning (CIP, 2018). This form of planning is a dynamic and long-term strategic process geared towards developing policies and programs to reduce or mitigate greenhouse gas emissions (GHG) and adapt to the impacts of climate change (Boswell et al., 2019; Fu et al., 2017; Tang et al., 2010). Climate action planning embraces the idea of thinking globally and acting locally (Boswell et al., 2010).

Initiatives such as the International Council for Local Environmental Initiatives (ICLEI)-Cities for Climate Protection campaign, Local Agenda 21, and Kyoto Protocol have brought momentum to climate action planning (Bassett & Shandas, 2010; Boswell et al., 2010; Guyadeen et al., 2019). Within the last decade, the focus of climate planning has been on how to plan and adapt to the impacts of climate change since the impacts are unevenly distributed, and an opportunity in a locality may be problematic elsewhere (Fu et al., 2017; Huitema et al., 2016; Klein et al., 2017). Even if strategies pertaining to GHG emissions are

⁷ Co-benefit refers to when a plan, policy or measure that aims to enhance an adaptation (mitigation) objective leads simultaneously to the enhancement of mitigation (adaptation) objective (Grafakos et al., 2019, p. 90).

successful, global climate change will continue, and so adaptation is critical (Fu et al., 2017; IPCC, 2014; Preston et al., 2011; Quay, 2010). Mainstreaming adaptation in climate change responses has been accompanied by an increase in the development of adaptation policies and plans, as well as the establishment of bi-lateral and multi-lateral adaptation finance mechanisms (Aylett, 2015; Bassett & Shandas, 2010; Grafakos et al., 2019; Reckien et al., 2018).

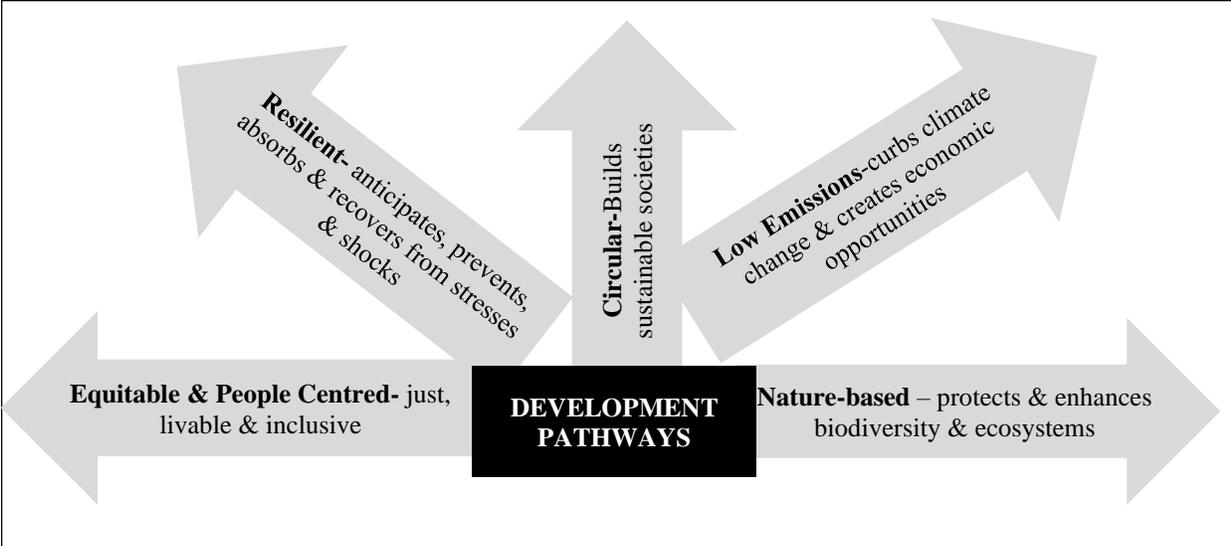
Adaptation planning in developing countries is driven by the National Adaptation Programme of Action (NAPA) (Preston et al., 2011). In 2010, the UNFCCC developed guidelines for these countries to assist with the production of National Adaptation Plans (NAPs). These guidelines were geared towards providing strategic short and long-term guidance for building resilience to climate change impacts and to develop and implement programmatic priorities. At the end of 2020, only 13% (20) of the 154 countries had completed and submitted a NAP (UNFCCC, 2020a).

Signatories to the 2015 Paris Agreement agreed to prepare and submit their National Determined Contributions (NDCs) as their part in global efforts aimed at decreasing emissions to limit warming to 1.5 to 2 degrees Celsius above pre-industrial levels, and to adapt to climate change. NDCs provide insights into progress made in climate action planning and the immediate steps required (Government of St. Vincent and the Grenadines, 2019). As of December 2020, 190 UN member states had submitted their NDCs (UNFCCC, 2020b). Only 67 countries have net-zero ambitions, which include many Caribbean-SIDS, and cumulatively they only account for 25% of global emissions. Large emitters such as China and the United States of America have not been assertive in addressing the issue

(WEF, 2020b). The NDC and the NAP frameworks can be considered as the minimum global benchmarks for climate policies and climate planning processes (Becken et al., 2020).

Although no official process for climate action planning exists, ICLEI’s cities for the Climate Protection Five Milestones (Figure 2-2) is the most popularly adopted process (Boswell et al., 2019). The ICLEI can influence the climate action process and outputs by restricting innovation due to the standardization of policy documents and actions or encourage innovation by promoting strategies and policies that are sensitive to local contexts (Bassett & Shandas, 2010). The ICLEI’s process involves two major quantitative tasks - GHG inventory and climate vulnerability assessment (Boswell et al., 2019). While these tasks offer a baseline from which to measure progress on climate initiatives, they are challenging for jurisdictions and organizations that lack financial and technical resources (Boswell et al., 2019; Fu et al., 2017; Li & Song, 2016).

Figure 2-2
ICLEI’s Five Milestone Development Pathways



Modified from (ICLEI, 2019)

2.6.1 The Challenges Presented by Climate Action Planning

Progress made in responding to climate change is not adequate given the scope and severity of the impacts (Meerow & Woodruff, 2019; UNFCCC, 2020; WEF, 2020). The 1.5°C limit is possible but will require significant changes in consumption, production, technological development, and land management patterns (IPCC, 2019). These changes will depend on the level of planning engagement and how planners and scholars assist communities in responding to the potential impacts (IPCC, 2014). Effective responses can be facilitated through the creation of high-quality climate plans. However, most climate action plans are not produced by professional planners (Bassett & Shandas, 2010; Meerow & Woodruff, 2019). Therefore, it is questionable whether some basic tenets of planning are being met in these plans, and how responsive and sensitive they are to various contexts in the absence of planners' input. Climate action planning is more technical and complex than traditional planning, hence scholars characterize climate change as a “super wicked planning problem” (see Chaudhury et al., 2017; Lazarus, 2010; Levin et al., 2009) based on Rittel & Weber's (1973) seminal work. The challenges that climate change planning presents are summarized in Box 2-2.

Box 2-2

Climate Change Planning as a Super Wicked Problem

- Requires in-depth knowledge of natural and climate sciences to develop plans that respond to local needs while simultaneously solve a global problem
- Magnitude and implications transcend beyond the spatial boundaries of traditional planning practices
- Few guidance exists on the range of strategies and policies
- Multi-causal, multi-scalar, multi-disciplinary & interconnected impacts
- Involves multiple stakeholders with diverse interests, experiences, and resources
- Solutions may create undesirable repercussions
- No wrong or right solutions only better or worse solutions
- Limited time to develop and evaluate solutions
- Cannot be completely solved
- Stakeholders irrationally discount future impacts
- Problem creators are least affected
- Weak and /or non-existent central decision-making authority and governance mechanisms
- High uncertainties and conflicts due to deep interdependencies
- Uncertainty among some who politicize the issue, makes it difficult to garner support for climate initiatives
- Viewed as a trade-off with other priorities, rather than an opportunity for business or as a conduit for achieving a more sustainable world
- Traditional planning tools are ineffective as they do not consider inequity and vulnerable groups which are key for climate justice

Sources: (Baynham & Stevens, 2014; Boswell et al., 2019; Filho & Keenan, 2017; Fu et al., 2017; Kashem et al., 2016; Klein et al., 2017; Lazarus, 2010; Levin et al., 2009)

Successful climate action planning must begin with good planning and be grounded in sound science, public education, and research (Baynham & Stevens, 2014; Stevens & Senbel, 2017). In addition, climate planning must consider the global context, external constraints, drivers of climate change, and integrated in existing planning policies and programs (Boswell et al., 2019; Tang et al., 2010).

2.6.2 Climate Action Planning in Caribbean-SIDS

The Caribbean Community Climate Change Centre (CCCCC) coordinates regional responses for climate change adaptation and mitigation. This organization developed a

resource toolkit called Caribbean Climate Online Risk and Adaptation Tool (CCORAL) to support climate resilient decision-making (CCCCC, 2013). The Caribbean Disaster and Emergency Management Agency (CDEMA) coordinates disaster responses and incorporates climate change in planning. Capacity building through training, research, and investigations services is provided by the Caribbean Institute of Meteorology and Hydrology (CIMH).

All nations in the region have ratified the Paris Agreement. Some regional governments have submitted their respective NDCs and have developed national climate change policies (Economic Commission for Latin America and the Caribbean [ECLAC], 2017; Dubrie et al., 2019). Suriname, Dominican Republic, and Grenada are among the eight countries globally that have submitted their second NDCs by 2020 (UNFCCC, 2020b). While regional governments recognize the risks of climate change, they are often forced to deal with more pressing priorities such as the provision of basic infrastructure and services, housing, jobs as well as crime and food security (ECLAC, 2017; Mycoo & Donovan, 2017). Implementing climate change priorities in the region is difficult due to limited climate relevant data; lack of adequate human, institutional, and technology capacities; over dependence on international donor agencies to fund climate actions; bureaucratic processes in accessing climate funds and absence of a central climate change database (Government of the Cooperative Republic of Guyana, 2018; Government of Belize, 2018). These issues are often cited in the literature as barriers to climate change planning globally (see Fu et al., 2017; Li & Song, 2016; Stevens & Senbel, 2017).

Climate planning in the region focuses on adaptation. Adaptation is viewed as the best option for the region, given the impacts that have already been felt (Mycoo, 2018; Robinson, 2019; Thomas et al., 2019). Climate action planning requires an integrated approach across

various sectors and scales to improve collaboration among stakeholders. However, adaptation efforts that are undertaken at the national level are often fragmented and selective; they concentrate on the water, agriculture, and coastal zone sectors (Thomas et al., 2019). Thomas et al. (2019) found that many of the 89 adaptation planning documents that covered the region did not include crucial phases in the adaptation process. They also found that the documents were ineffective in establishing the link between the risk associated with climate change and the range of adaptation options. Though these scholars' assessment was limited to planned adaptation climate change documents, their findings highlighted that regional climate change institutions lack synergies in climate action planning and policy. Also, key stakeholders lack the capacity to develop climate relevant documents tailored to the specific needs of each country. Experience in climate action planning in the region has proven that while the nations share some similarities, they are unique; as a result, adopting a single approach to adaptation and mitigation is considered ill-advised (Mycoo & Donovan, 2017).

2.7 Theoretical Framing

The preceding sections have outlined the various thematic areas that comprise the research topic. This section examines the main theoretical concepts that emanate from these thematic areas. I have adopted the grounded theory approach as not enough research exists on the topic from a developing country's perspective. Thus, the aim of this section of the literature review is not to use existing theories to anchor my research, but rather to uncover new theoretical insights as I examine the appropriateness and application of existing theories in explaining the various facets of my research based on the data collection and analysis phases.

2.7.1 Theory Defined

Theories are the lens through which the problems of the world can be viewed and understood. They are shaped by the social, economic, and cultural factors that exist at a particular time (Hall, 2015). In some instances, theories are replaced based on new thoughts or evidence, while in other circumstances they are improved upon. Within planning, practitioners conduct their work based on established theoretical assumptions. Hence, my role as a scholar is to communicate and make visible these theoretical assumptions to help guide planning practitioners in the region and elsewhere in the execution of their work (Friedmann, 2011).

Scholars often take various angles when defining theory. Coincidentally, Allmendinger (2017) has described theory as a diffused phenomenon since he asserted that it has a variety of meanings. Descriptions of theory as posited by various scholars, range from ideas to laws as highlighted in Box 2-3. How scholars define theory reflects whether they possess a social science or natural science background. For example, scholars with a natural science background often include the terms facts, experimentation, making prediction, and tested hypothesis in defining theory (see for example National Center for Science Education [NCSE], 2016; Peterson & Bredow, 2009). This may be because the natural science disciplines tend to focus on fact finding.

Box 2-3

Definitions of Theory by Various Authors

“A **system of ideas** or **statements** held to **explain** a group of **facts** or phenomena, a **statement of general laws**, systematic statements of **general principles**” (Chadwick, 1978 p.186).

“Collection of **concepts** about the real world that facilitate **explaining, predicting, or intervening**” (Clapham, 2018, p. 172).

“A **statement of concepts** and their **interrelationships** that **shows** how and/or why a phenomenon occurs” (Corley & Gioia, 2011 p.11).

“A way to **understand** events and to **predict** future events based upon **research findings** supporting the theory” (Ferguson, 2018 p.166).

“A well-substantiated **explanation** of some aspect of the natural world that can incorporate **facts, laws, inferences and tested hypotheses**” (NCSE, 2016 para.5).

Despite the divergence of thought among scholars when defining theory, Corley and Gioia (2011) have maintained that what comprises a theory is rooted in its capacity to offer original and practical insights into a phenomenon, whether by advancing or challenging a discipline’s existing knowledge base. I therefore submit that an operational definition for theory is: a set of concepts, constructs, statements, propositions, or sentences derived from research findings aimed at describing, explaining, validating, predicting, and interpreting the connection(s) between different variables, phenomena, or human relationships.

2.7.2 Planning Theory Defined

The University of Chicago’s Planning Program of Education and Research in Planning is credited for the explicit use of the term, “planning theory” in the late 1940s (Hillier & Healey, 2016). Since then, prominent planning scholars have acknowledged that defining planning theory is a difficult feat (see Alexander, 1992; Allmendinger, 2017; Fainstein et al., 2016; Friedmann, 2008). The reasons cited for this difficulty include: (a) planning is

concerned with a variety of issues which overlap with several social and scientific theories and hence, it is challenging to limit its scope; (b) there is no distinct professional boundary between planning and other related built environment professions that are engaged in the planning process; (c) a dichotomy exists between those who define planning based on its objectives and those who define it based on its method; and (d) unlike other fields, planning does not possess an exclusive set of methodologies from which its theoretical base can be used to develop its own tools of analysis, as its methodologies are derived from a variety of other fields (Alexander, 1992; Allmendinger, 2002; Bengs, 2005; Davoudi, 2015; Fainstein et al., 2016; Hillier & Healey, 2016; Taylor, 1998; Pallagst, 2017).

The lack of consensus regarding the scope and function of planning makes it questionable as to whether planning theory can be distinguished as a distinct body of knowledge (Davoudi, 2015). Consequently, there is acknowledgement that there is no single theory that can be regarded as the optimal planning theory (Allmendinger, 2017; Dzurik & Feldhaus, 1986; Pallagst, 2017). It has also been suggested that the development of such a theory is highly improbable because planners operate in a setting where there is plurality of interests (and perspectives) among the public. Hence, problem solution in one area of planning can become problem generation for another (Rittel & Webber, 1973).

This scenario is quite evident in my research especially since climate change is a complex and dynamic phenomenon and as mentioned earlier in the literature review, it is a “super wicked” planning problem. Though there is a lack of consensus in defining planning theory, Friedmann (2008) has offered that planning theory encompasses the contextualization of spatial management practices that are rooted in ethical or critical principles that may be taken from other disciplines, to provide alternative knowledge to the planning field. I

subscribe to this view of planning theory held by Friedmann. The planning theories that I have included in my research are used to contextualize the key issues as outlined in the subsequent sections.

2.7.3 The Role of Theory

Generally, theory is used to describe, explain, predict, or control a phenomenon (Peterson & Bredow, 2009). A more explicit use of theory is that it provides explanations and descriptions of facts with a standard to judge whether they are true or false, through which the complexity of issues can be better understood (Roberts-Holmes, 2005; Seale, 2011). From an academic stance, theory guides the various stages of the research helping to assess, explain and predict the occurrences of various phenomena. Theory helps to determine what method should be applied in measuring certain concepts, and to understand the factors that influence them (Moustafa, 2014). It is also a medium through which a researcher can make connections among variables that may initially have been deemed unconnected, as well as it provides a context for analysis (Wacker, 1998). Consequently, theory is the base from which existing ideas about a phenomenon can be confirmed, refuted, or improved (Davidoff et al., 2015; Garner et al., 2009). Hence, theory reflects the current thoughts in the academic discourse (Corley & Gioia, 2011; Moustafa, 2014). It can therefore be deduced that theory is the engine of the research process, the foundation for future action and understanding.

In practice, theory can be used to specify the uniqueness of a profession, thus creating professional boundaries (Peterson & Bredow, 2009). It can also guide practice by enhancing understanding and possibly controlling some situations; offering a perspective on behavioural traits; presenting a means for interpreting data; and recommending suitable approaches or methods for addressing a situation to produce the most desirable results (Davidoff et al.,

2015; Peterson & Bredow, 2009). Further, theory can provide the base for developing skills and tools needed to inform practice, and to explain the actions of practitioners to their clients (Alexander, 1992).

2.7.3.1 The Role of Theory in my Research

The role of theory in my research served four principal functions: (a) provided a description of the issues, (b) explained and analyzed why things are like that, (c) offered guidance on what to do, and (d) what ought to be done (Mitchell & Graham, 2017).

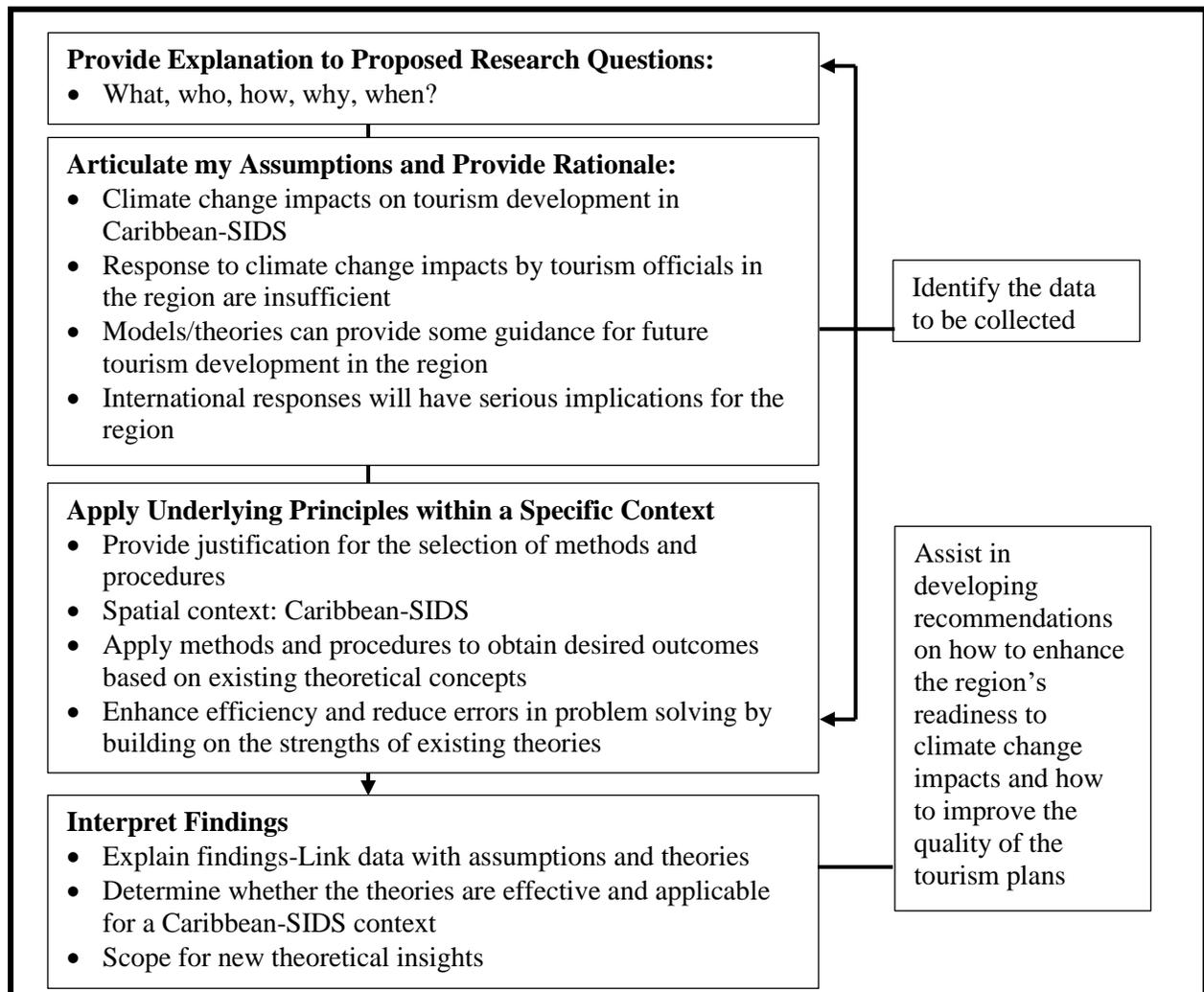
Accordingly, the inclusion of various theories in my research provided several benefits as summarized in Figure 2-3. Among the benefits of incorporating theories in my research is that they provided me with a basic understanding of the nature of the impacts of climate change on the tourism sector in Caribbean-SIDS. This was accomplished through the interpretation of the data gathered. The theories also aided in formulating my overarching research question and sub-questions.

During the research process, I made certain assumptions and used theories to support the claims made. Further, I was able to assess whether the underlying principles of the theories that I included in my research were applicable in a Caribbean-SIDS context. Assessing the applicability of the various theories was important; although the countries in the region share similarities, they possess subtle differences in their context, thereby providing an opportunity to offer new theoretical insights. Consequently, I was able to offer guidance on climate change responses in the tourism sector for different contexts and levels of planning, as well as provide recommendations on how to enhance the quality of tourism plans in this regard.

Finally, the theories offered an opportunity for me to engage in scholarly and professional self-reflection (Fainstein & Defilippis, 2016). In undertaking this reflection process, I was able to decipher the connections between the different facets of my research which initially had seemed unrelated and abstract and difficult to understand why some things are the way they are in the region. The reflection process therefore offered an opportunity to consider the best way forward for Caribbean-SIDS in addressing climate change in the tourism sector given the different realms of the planning context in this region.

Figure 2-3

The Role of Theory in my Research



2.7.4 The Importance of Context in Theory Selection and Application

It is regular practice to apply a theory in one context and then generalize the results, and to apply different theories for each planning scenario (Perényi, 2014; Watson, 2016; Willson, 2017). However, context plays a vital role in theory application, as the importation of planning ideologies from elsewhere into a particular geographic sphere can result in undesirable consequences. Context, in this sense, refers to the social and institutional environments in which planning takes place (Alexander, 2015). Since planning theories in general are developed in response to a particular issue and in certain circumstances, there are variations among theories with regard to the approach taken by their developers, their underlying ideologies, and the factors that influenced their development (Adom et al., 2018; Allmendinger, 2017; Gunder et al., 2017). Theories, therefore, should not be spatially fixed, as they are often power-laden and subjective in their approach (Allmendinger, 2017).

Most planning theories have been developed by scholars from the Global North (Speak & Kumar, 2017; Watson, 2016). In many instances, these theories do not reflect the social, economic, political, cultural, and technological challenges present in other parts of the world including the Caribbean-SIDS region. Hence, the practice of lifting planning theory from one context and applying it to another is a limitation of scholars who view development as a linear and singular model (Healey, 2011).

As mentioned previously, planning is viewed as an instrument of control in Caribbean-SIDS as many of the existing planning instruments and processes were transposed through colonial aid networks. After World War II, there was a shift in the role of the state as these countries went through a process of decolonization. Accordingly, there is a new thrust to deal

with planning problems related to institutional renewal, rapid urbanization and modernization that confront these countries (Gunder et al., 2017).

It is therefore easier for countries of the Global North to tackle planning problems with the application of existing theories. Countries of the Global North have more advanced economies, and so their institutional and management capacities are well developed (Allmendinger, 2017). This is not the case in Caribbean-SIDS as these countries struggle because of their past development legacies, limited resource base, and existing land use practices that are rooted in unresolved land conflicts. Additionally, the planning system in many of the former British colonies in Caribbean-SIDS is based on the British Town and Country Planning Act (1947) (Polar & Mohammed, 2016). Although the Act has been amended several times in Britain, this was not done in the Caribbean, and so planning in this region is being guided by outdated legislation, plans and policies. Compounded with this, is that planning, and environment agencies in Caribbean-SIDS, suffer from weak enforcement of environmental regulations, development standards, and building codes (Mycoo & Donovan, 2017). Based on these aforementioned factors, it is difficult to transpose certain planning theories in a Caribbean context. In this regard, I have chosen not to use the planning theories that I have outlined in the subsequent sections to anchor my research, but rather to use these theories as guides to see what new theoretical insights can emerge from my research process.

2.7.5 Overview of the Principal Planning Theories Applicable to my Research

There is no single theory that can be used to address a complex planning problem such as climate change. Planning practice is informed by the nature of the context, which is characterized by complexity and uncertainty (Campbell, 2012). Like other complex planning

problems, my research calls for multiple and diverse theories to inform my thinking and provide different perspectives. I am cognizant that theories have their benefits, but they also have some shortcomings. Therefore, I was cautious in my use of theories and their appropriateness for my research, as I explored the nature of the challenge that confronts the tourism sector in the region.

I found that rational comprehensive planning, communicative planning, and incremental planning theories permeated my research. These planning theories are procedural; my rationale for exploring these theories is that my research seeks to explore how the tourism sector in the Caribbean SIDS region can engage in climate change planning while improving the quality of existing tourism plans. Procedural theories of planning are concerned with justifying and defining methods of planning decisions, while substantive theories focus on interdisciplinary knowledge that is applicable to planning (Allmendinger, 2009). Further, as I mentioned in section 2.5.1, the rational comprehensive planning and communicative planning theories have had considerable influences on tourism planning.

There were other theoretical influences and concepts that could be drawn upon such as just-in-time planning, contingency planning, and strategic planning to provide guidance for the region's tourism sector in its efforts aimed at addressing climate change. In some instances, some elements of these theoretical influences and concepts can be combined to offer insights on the issues I uncovered, and they can be modified to provide guidance. The gaps in these theories provided an opportunity for me to make meaningful contributions which are discussed further in Chapter Seven.

2.7.5.1 Rational Comprehensive Planning Theory

The rational comprehensive planning theory is pivotal in offering insights for my research on tourism plan making. Rational Comprehensive Planning theory was dominant in guiding planning practice in the 1960s and later became engrained in planning education during the 1980s (Innes & Booher, 2015). This theory is premised on the notions of objectivity and rationality by using a scientific and logical approach to problem solving (Cordes, 2020; de Roo & Hillier, 2016; Weil et al., 2013). Hence, it has a deeply positivist epistemology (Innes & Booher, 2015). The theory is hinged on the idea of developing strategies that are quantifiable and determining the least cost alternative for a desirable goal (Fainstein & Defilippis, 2016).

One of the assumptions of this theory is that planners are regarded as highly technical experts who are neutral, objective analysts (Innes & Booher, 2015). As such, the public plays a limited role in offering guidance on preferences and values (Innes & Booher, 2015). Therefore, the role of planners is to develop goals that can achieve the most effective results (Eraydin & Taşan-Kok, 2013). In doing this, the theory provides planners with a concrete set of steps and approaches when confronted with complex problems (Hurlimann & March, 2012). Although there are slight variations among different literature sources (Brooks, 2002), in general, the rational comprehensive planning process follows the steps and approaches that are depicted in Figure 2-4. As depicted in Figure 2-4, these are orderly and logical steps from problem identification to problem solving. The process is cyclical and allows for feedbacks and monitoring and evaluation.

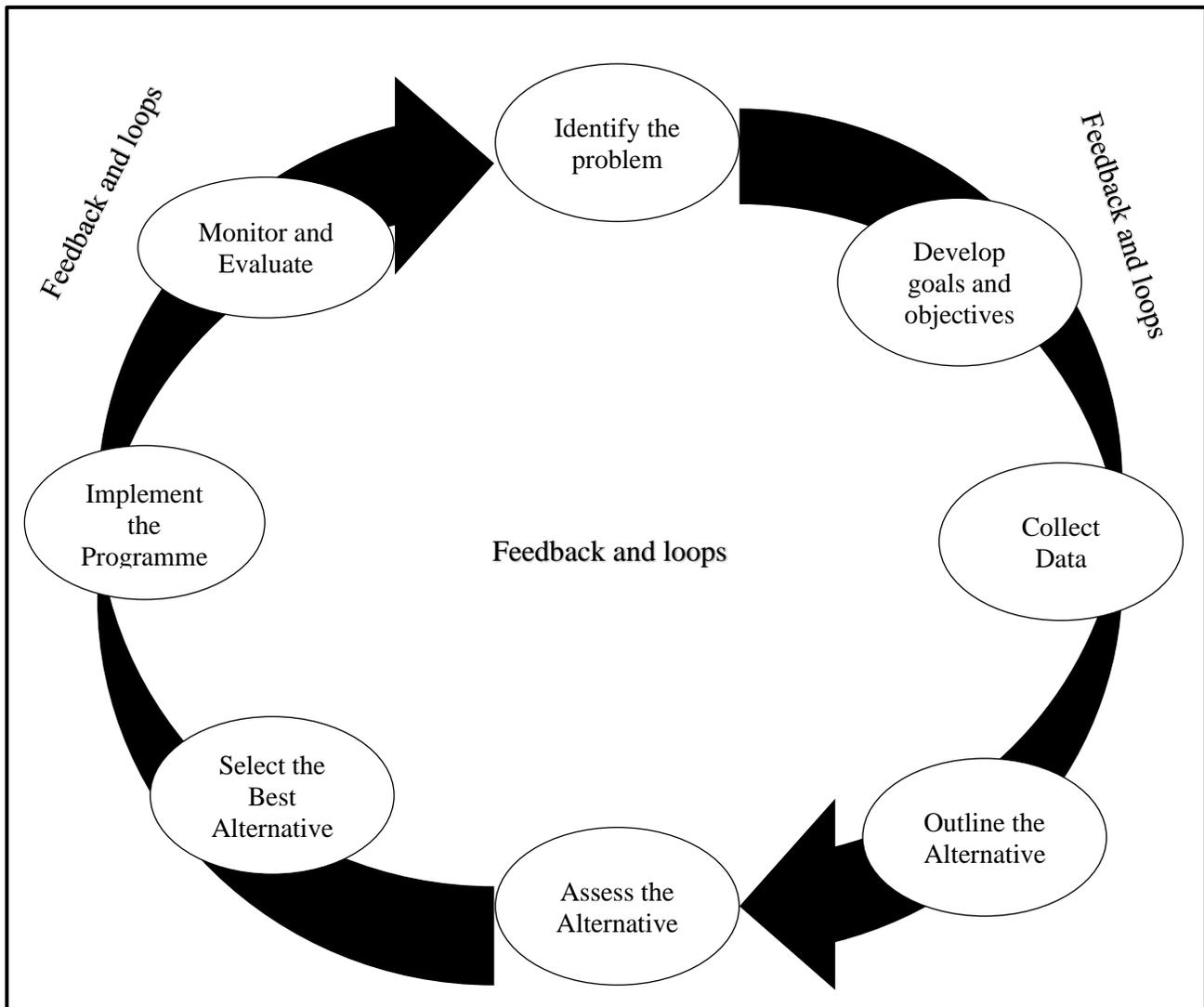
Among the major criticisms of this theory is that it focuses on process and therefore offers no insight on politics, ambiguity, and conflict as these are absent in a scientific process

(Fainstein, 2000; Innes & Booher, 2015). Since the theory is rooted in scientific rationality, it does not account for people's values and emotions. Further, some have argued that many of the challenges confronted in planning do not lend themselves to quantification and formal analysis (Innes & Booher, 2015). Others expressed that due to lack of resources and time, it is difficult to be comprehensive (Lindblom, 1959; Taylor, 1998). Successful planning requires interaction and understanding among key stakeholders which is a deficiency of the rational comprehensive planning theory (Innes & Booher, 2015).

Lindblom (1959) challenged that this theory assumes that practitioners have intellectual capacities and information at their disposal to know the values held by each member of the society, calculate how much each value is worth, and then determine which alternative produces the greatest value. He contended that practitioners simply do not have these abilities.

Figure 2-4

Steps in the Rational Comprehensive Planning Process



2.7.5.2 Communicative Planning Theory

Communicative planning theory became popular during the 1980s and 1990s and emerged as one of the rejoinders to the rational comprehensive planning theory. The theory is well established in the literature (Calderon & Westin, 2021) and includes many variations such as collaborative planning (Healey, 1997), participatory planning and deliberative planning (Forester, 1999). The theory focuses on the interactive governance process which

results in collaborative learning and greater understanding of the local relations in solving conflicts (Machler & Milz, 2015). At the heart of communicative planning theory is the recognition that effective planning occurs through social interactions, dialogue, and communication (Innes & Booher, 2015). Accordingly, the theory regards communication as a conduit for working with and understanding others, rather than for conveying facts (Brooks, 2002; Innes & Booher, 2015). It is through this communication process that facts are socially constructed (Innes & Booher, 2015).

Advocates of this theory argued that more just, robust, practical, and rational outcomes can be achieved through communicative planning rather than neutral analysis, which the rational comprehensive theory is premised on (see Healey, 2006; Hoch, 2007). Some scholars have noted that effective communication among stakeholders results in greater understanding of potential actions which in turn, improves stakeholders' motivation for action (Fainstein, 2000; Innes & Booher, 2015; Machler & Milz, 2015). These scholars are of the view that planners are not technical experts; instead, they are experiential learners as they are among the group of stakeholders who are deeply connected to the problem. Based on this theory, the role of planners is to be mediators in various social phenomena (Fainstein, 2000; Machler & Milz, 2015). This requires planners to be effective communicators and negotiators (Forester, 1999). Communicative planning theory thus provides planners with guidance on practical tools and establishes normative criteria for developing innovative collaborations and assessing the outcomes of a planning process (Healey, 1999).

Among the major criticisms of this theory is the view that inclusion and communication cannot produce knowledge or result in fundamental change (Tewdwr-Jones & Allmendinger, 1998). Similarly, Brooks (2002) has expressed that mediation and

consensus building cannot guarantee success. He argued that there are instances in which consensus cannot be reached due to differences amongst change agents, citizens, and elected officials. Further, despite reaching consensus in the planning process, communicative planning does not eliminate power dominance or marginalization of certain groups.

Others have highlighted that the theory assumes that the political process that planning is part of, is rational, structured, reasonable, and manageable (Brooks, 2002; Fainstein, 2010). Critics have questioned the ability of communicative planners to influence power structures (Fainstein, 2010; Harvey, 1978; Innes & Booher, 2015). Another critique of communicative planning theory is that it focuses on process rather than outcome (Brooks, 2002; Fainstein, 2000; Huxley & Yiftachel, 2000). It also fails to account for important tasks that planners are involved in before and after the communicative process, such as developing budgets and timetables, and deciding on who should be involved in the process (Brooks, 2002). Finally, it is argued that communicative planning is time consuming and results in participation fatigue among participants (Fainstein, 2000).

2.7.5.3 Incrementalism

Incrementalism as posited by Lindblom (1959) provides an alternative to rational decision-making in planning. Unlike rational planning which takes a comprehensive approach to solving planning problems, incrementalism takes a piecemeal approach. This theory acknowledges that planners are forced to make decisions despite resource challenges, limited available information and time limits. Adopting an incremental approach to planning results in a reduction in the decision-making timelines and costs since there are fewer alternatives presented and analysed (Lindblom, 1959). Consequently, this approach to planning is favoured by political actors since it results in a reduction in the lengthy decision-

making process. For planning practice, the theory reflects a conservative approach and advises on being cautious for large scale changes that could lead to adversarial repercussions. In essence, the theory is premised on the idea that marginal changes to the status quo are safer, and the outcomes are more predictable, than major changes (de Roo et al., 2020). Budget holders, decision-makers and politicians are more receptive to minor changes rather than significant shifts, and so more support can be obtained from these stakeholders. Another fundamental aspect of incrementalism is that decision-making becomes more feasible and manageable if it begins with addressing current policies and conditions as they arise rather than to develop ideal goals (Brown et al., 2018).

Due to the absence of formal evaluation of the varied alternatives, this theory does not result in the best decisions made (Brooks, 2002). Moreover, since the theory centres on providing small solutions to complex planning problems, it is not holistic, and therefore is deficient in providing visionary or long-term goals. Given that the theory is conservative in nature, it does not challenge the status quo of existing traditions and institutions and thus limits the scope for systematic change and reform (Brooks, 2002; Etzioni, 1968). It has also been argued that incrementalism is subjective since what can be considered incremental to some may be radical to others. For example, the theory provides no benchmark on what is incremental, what criteria should be used in selecting the limited alternatives, or does the theory presents any guidance on which consequences should be ignored or considered (Brooks, 2002). It can be reasoned that incrementalism favours the powerful in the quest for practicality and feasibility.

2.8 The Relevance of the Selected Planning Theories to my Research

The preceding sections have presented an overview of the theories that I consider pertinent to my study. Table 2-9 summarizes the three planning theories and their relevance to my research. As depicted in the table, each theory offers different insights. Their underlying assumptions and limitations provide the foundation for discussion of my contributions to theory improvement, planning practice and research design as explained further in Chapter Seven. For example, the rational comprehensive planning theory can provide a structured approach to tourism plan making in the context of climate change. In applying the rational comprehensive planning theory to my research, it can provide a detailed analysis of the impacts of climate change on the region's tourism sector and all the possible alternatives in resolving the issue (Hostovsky, 2006). In this regard, this procedural planning theory can guide me in defining and justifying the approaches to be employed in improving the quality of the region's tourism plans (Allmendinger, 2002).

Alternately, communicative planning theory offers a methodology for communicative planning in the context of climate change responses in the tourism sector. Incremental planning theory can provide guidance in the face of the resource and capacity challenges in Caribbean-SIDS. This is particularly important for planners who will be integral in the process for planning for climate change in the tourism sector and working within the confines of existing political and institutional machineries.

Table 2-9*Planning Theories Relevant to my Research*

Planning Theory	Principal Underlying Assumptions	Major Criticisms	Relevance of the theory to my research
Rational Comprehensive Planning	<p>Planning process is structured, technical and requires data</p> <p>Planners are technical experts</p> <p>Clarification of values and objectives distinct from comparison of alternatives</p> <p>Comprehensive review of all factors pertinent to the decision-making</p>	<p>No consideration for the political nature of decision-making</p> <p>Time, intellectual capacities, and resources do not permit comprehensive review of all factors in decision-making</p> <p>Alternatives differ marginally</p>	<p>Structured approach for tourism plan making in the context of climate change</p> <p>Provides a comprehensive list of the important steps and approaches to be followed</p> <p>Permits scientific reasoning through data collection and use of modern technology e.g., tourism climate change modeling</p>
Communicative	<p>Planning activities are communicative</p> <p>Better results will be achieved if stakeholders are involved, and empowered</p> <p>Communication is sincere, legitimate, and true</p> <p>Power relations continues</p>	<p>Planning activities before and after the process are not accounted for</p> <p>Communities comprise groups with radically divergent values and operating styles that are entrenched in political processes which defy management by planners</p> <p>Mediation and consensus building do not guarantee success due to differences amongst stakeholders' goals</p> <p>Legitimate communication does</p>	<p>Viewing planning, tourism, climate change and disaster management practitioners as full partners in the process</p> <p>Can contribute to the value system-ensuring that marginal groups are included, and the values of various stakeholders are accounted for</p> <p>Provides guidance on striving to ensure that communication is sincere, legitimate, true, and understandable</p>

Planning Theory	Principal Underlying Assumptions	Major Criticisms	Relevance of the theory to my research
		<p>not eliminate power domination</p> <p>Emphasizes process at the expense of outcome</p>	<p>Offers a methodology on communicative planning practice in tourism planning e.g., mediated negotiation, consensus building, group decision-making and dispute resolution to enhance involvement in planning for climate change in the tourism sector</p> <p>Provide insights on values and methods to be considered in the process</p> <p>Since tourism and climate change are dynamic phenomena, policies that are developed to address them should involve a wide range of stakeholders</p>
Incrementalism	<p>Practitioners have limited cognitive power</p> <p>Focuses on applied knowledge and practicality</p> <p>Decisions made incrementally can be reversed or refined</p>	<p>Ignores the process of innovation in society</p> <p>Politically conservative-past traditions and institutions remain unchallenged</p> <p>Favours the powerful in society</p> <p>Cavalier in its treatment of goals and analysis</p> <p>Deficient in providing benchmark for what should be considered</p>	<p>Climate planning in the face of resource and capacity constraints</p> <p>Recognizing that practitioners must be practical as there are time limits and pressures from politicians and budget holders</p>

Planning Theory	Principal Underlying Assumptions	Major Criticisms	Relevance of the theory to my research
		<p>incremental or the criteria for inclusion of alternatives and number of alternatives</p> <p>Absence of formal evaluation makes it difficult to correct inappropriate course of action</p>	

Sources: (Brooks, 2002; Etzioni, 1968; Pal, 2017)

2.8.1 The Use of Grounded Theory in my Research

Grounded theory was originally postulated by Barney Glaser and Anselm Strauss in their 1967 seminal work entitled, “The Discovery of Grounded Theory: Strategies for Qualitative Research.” This approach to theory uses inductive knowledge, and so centres on how data that have been systematically collected and analyzed can provide new theoretical insights (Glaser & Strauss, 2017). Unlike traditional qualitative research, in which the role of theory is focused on providing a detailed description of a culture or setting, ascribing meaning to diverse cultures or lives, or analyzing respondents’ views, grounded theory is focused on theory building (Oktay, 2012). Theory development therefore manifests inductively through research.

I have adopted a grounded theory approach to my research to provide new theoretical insights based on empirically derived data from within a Caribbean-SIDS context. My findings can be used to guide planning, tourism, and climate change practitioners in the region. Since I adopted a qualitative approach for my research, grounded theory permitted me to generate new insights and generate conclusions from the data I gathered from my

participants (Creswell, 2014). Further, the findings of the information from the grounded approach can guide practitioners and policy makers in the region on which strategies are more appropriate to use, or should be avoided (Seasons, 2021) in addressing climate change responses in the region.

The use of grounded theory for my research allowed for flexibility. This flexibility of the grounded theory is rooted in its conceptualization. Grounded theory is a hybrid of intellectual theory that manifested from the work of Glaser who was a quantitative positivist researcher and Strauss who was a qualitative constructivist researcher (Oktay, 2012). Accordingly, grounded theory can adopt a positivist, constructivist, or pragmatic approach. I have chosen a pragmatic approach in my use of grounded theory for my research as discussed further in Chapter Three which focuses on my research design.

The pragmatic approach to grounded theory has permitted me to select different research methods that are suitable for my research. For instance, while I used content analysis to assess the quality of the region's tourism plans in the context of climate change, it involved working with a wealth of narrative data to identify patterns and draw conclusions. These patterns and conclusions were possible by assigning numerical values to these large narrative data.

Similarly, while I used a survey to gather data on participants' perception on climate change responses in the region's tourism sector, the quality of existing tourism plans and how the quality of the plans could be improved, it produced descriptive statistics. I was also able to ascertain firsthand knowledge of issues that confront practitioners in the region in responding to climate change, which would not have been possible if I only relied on the data from the content analysis of the plans.

Therefore, while the content analysis of the plans facilitated an objective view as I used a TCCPQ framework to conduct my assessment, the survey facilitated a subjective view. In determining the best strategies to be adopted in enhancing the quality of the region's tourism plans and climate change responses in the tourism sector in general, a positivist perspective may be more suitable. However, I am cognizant of the social, economic, physical, and geo-physical realities within the region and how I can be constructive in offering new insights for theory and practice.

2.9 Chapter Summary and Concluding Remarks

The literature review has exposed that climate change impacts are borderless. Caribbean-SIDS and other developing countries are most vulnerable and will suffer disproportionately because of their systemic challenges. These challenges reduce their adaptive capacities and resilience, making climate change responses difficult. Climate change poses significant risks for the region's tourism sector which is the most tourism dependent in the world.

Both observed and anticipated climate change impacts will have broad implications for the future growth and development of the region's tourism sector and other sub-sectors that depend on it. Thus, high quality climate change-tourism plans are required to set the region's tourism sector on a path to confront the climate challenges and exploit possible opportunities. This requires the development of strategies to maintain a balance between the social, economic, and environmental demands in the region and to ensure that future tourism development is aligned with the resilience of the respective nations.

In view of the foregoing, the Chapter has provided an overview of three planning theories which can provide guidance and help to explain the situation in the region in

responding to climate change in the tourism sector. I am cognizant that these theories have certain limitations and that not all their underlying assumptions are applicable in a Caribbean-SIDS context. Hence, these theories are further explored in Chapter Seven where I discuss their applicability for a Caribbean-SIDS context and how they can be tweaked, if possible, to provide guidance.

Chapter Three

3 Research Design

This Chapter focuses on the research design and briefly explains the study's philosophical paradigm. The purpose of this Chapter is to describe the research procedures and rationale of choice for the collection, analysis, and interpretation of the study's data. Also included in the Chapter, is a discussion on the sampling procedures used for the various research methods. At the end of the Chapter, a summary is provided which highlights some lessons learned in drafting and modifying the research design.

3.1 Factors That Influenced the Research Design

In developing the research design I considered: (a) the research's purposes and significance (Denzin & Lincoln, 2017; Leavy, 2017), (b) my philosophical research views, (c) possible inquiry sources and data collection methods (Creswell & Creswell, 2017; Denzin & Lincoln, 2017; Klenke, 2016), (d) the existing body of knowledge on my research topic, (e) the scope of the research, (f) available resources, and (g) access to data and potential respondents (Denzin & Lincoln, 2017). My research philosophy and the purposes of the research were the principal factors that influenced the research design.

3.1.1 The Purposes of the Research

Typically, research serves one (or more) of the following purposes: (a) exploring, (b) describing, (c) explaining, (d) prompting community change or action, (e) evaluating, or (f) evoking, provoking or unsettling stereotypical ideologies (Hastings & Salkind, 2013; Leavy, 2017). My research served several purposes due to its scope.

The research began with a description of climate change impacts and the nature of tourism activities in Caribbean-SIDS. This description provided a suitable context for the research (Leavy, 2017) and laid the foundation for later exploring how tourism planning practices and tourism plans can be improved. The research then segued into explaining tourism planning and practices in the region and the factors that have influenced the region's tourism practices and tourism plan preparation processes. In this regard, the research illuminated the causes and effects that certain activities and their absence, such as planning instruments/mechanisms or government strategies and policies, have on tourism plan making and tourism planning practices in this region.

The research also served an evaluative purpose by assessing current tourism plans and tourism planning practices in the region; this evaluation is one of the major research outputs. Plans are not static but are evolving instruments that require constant revision and updating to be responsive to existing socio-economic conditions (Ellis & Roberts, 2015; Guyadeen & Seasons, 2016). Evaluating the tourism plans in the Caribbean-SIDS basin in the context of climate change was important to determine the readiness of the sector to manage projected impacts of climate change, the extent to which the plans are responsive to potential impacts, and to highlight elements of the plans that needed improvement. In evaluating the region's tourism plans and practices, I designed and applied the Tourism-Climate Change Plan Quality (TCCPQ) framework which comprises a set of criteria that was informed by the literature on the characteristics of a quality climate change plan and practices globally. The TCCPQ framework is discussed later in this Chapter. After evaluating these plans and practices, the research then focused on exploring the suitable approaches and resources that

could be applied to help inform how the quality of the tourism plans in the region could be improved to effectively address the challenges presented by climate change.

3.1.2 The Research Philosophy/ Paradigm

The pragmatic research paradigm was adopted for this research because of the nature of the issues involved and objectives of the research. Pragmatism focuses on the integration of theory and practice to develop a practical solution for a problem (Johnson & Christensen, 2014; Ling & Ling, 2017). One of the main objectives of this research (as stated in Section 1.5), was to formulate guidelines for improving the quality of tourism plans and tourism plan making practices in the Caribbean-SIDS region in the context of climate change, given the vulnerabilities to be confronted. Due to the complex issues involved, I used empirical and theoretical data.

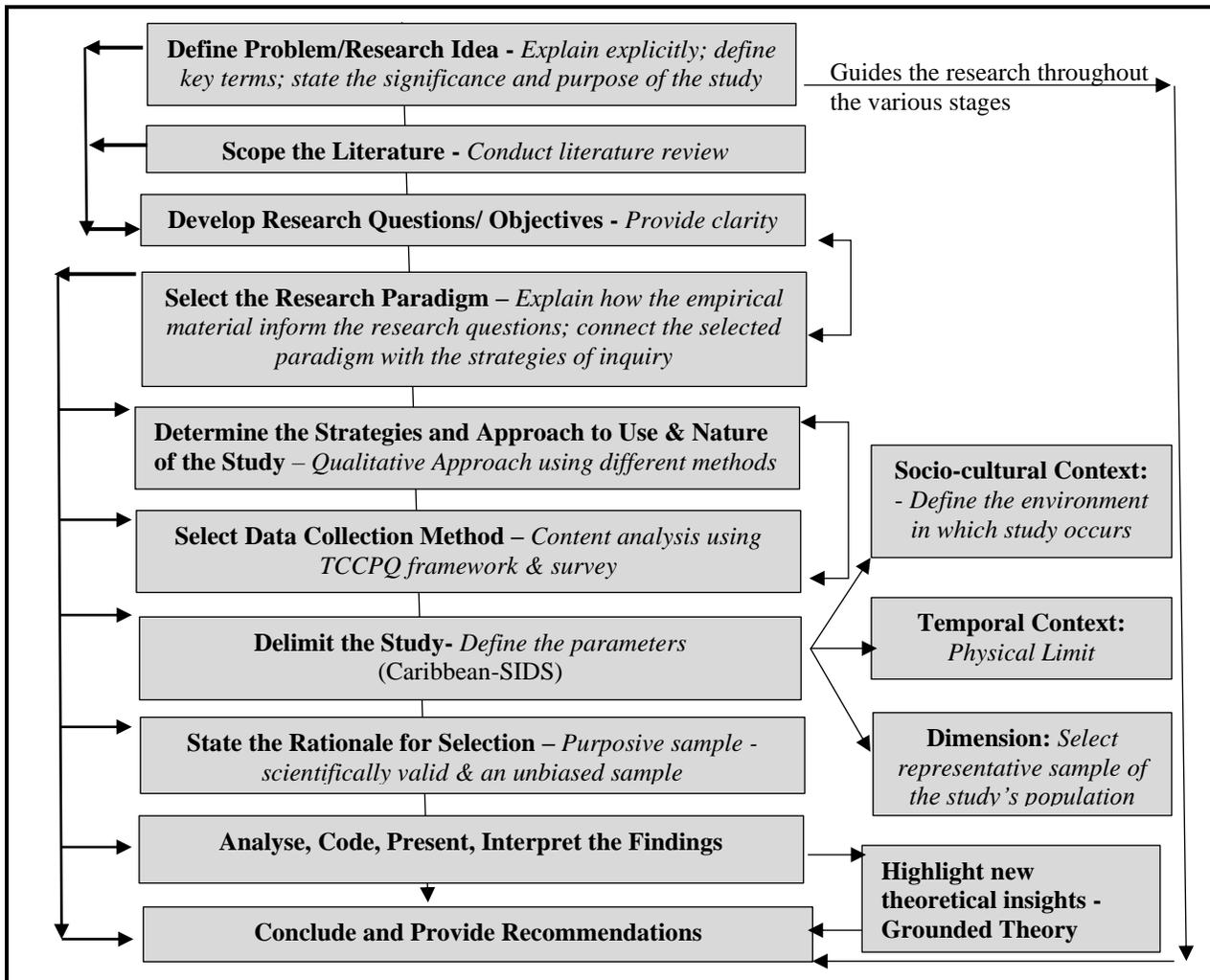
A pragmatic paradigm anchored in grounded theory was used (Oktay, 2012). This strategy was selected so that I could combine the various research components and methods in a way that worked for the research problem, research questions, and research circumstances (Creswell, 2014; Johnson & Christensen, 2014). Using this strategy enabled me to uncover the underlying realities and the key agents operating in Caribbean-SIDS, and these agents' goals, policies, and actions in responding to climate change impacts within the tourism sector. Since my research incorporated a novel content analysis method - i.e., the TCCPQ framework - to determine the readiness of the region's tourism sector to projected climate change impacts, there were new theoretical insights that I uncovered which are discussed in Chapter Seven. The data that I collected from the survey can provide practical guidelines for decision-makers in the region about how to improve the quality of the tourism plans in addressing climate change.

3.2 The Research Design Process

An outline of the research design process is depicted in Figure 3-1. During the process, the literature review and the research questions were prominent features reflecting their connections with, and between the research paradigm, inquiry strategies, research methods, data analysis and interpretation, conclusions, and recommendations (Campbell et al., 2017; Denzin & Lincoln, 2017).

Figure 3-1

The Research Design Process



Sources: (Campbell et al., 2017; Creswell, 2014; Denzin & Lincoln, 2017; Johnson & Christensen, 2014)

3.3 Research Approach and the Rationale of Choice

A qualitative approach was adopted to obtain a comprehensive understanding of the issues and to enhance the robustness of the research (Leavy, 2017). In general, a qualitative approach produces descriptive data of the meanings that people attach to their experiences and social setting (Taylor et al., 2016).

I selected a qualitative approach because I wanted to obtain a firsthand knowledge of how practitioners in the region are responding to climate change in the tourism sector. Through the qualitative research approach, I was able to empathize and develop a deeper understanding of the reality and challenges that confront these practitioners in addressing climate change from their own perspective which could not have been possible if I adopted a quantitative approach.

Participants are part of the research empowerment process and shape the alternative paradigm via their interaction (Klenke, 2016). By adopting the qualitative approach, I obtained a closer linkage with my target population while I aimed for objectivity and unveiled new knowledge, relationships, and patterns (Creswell, 2014). Certain aspects of my research were not quantifiable, so I used subjective judgement in relaying these findings.

As I mentioned previously, most plan quality studies do not incorporate the views of practitioners who are intimately involved with the plans under evaluation. By including these practitioners in my study, I was able to set aside any preconceived ideas, which allowed me to uncover new insights as I engaged with the participants. One of the key features of qualitative research is that all perspectives are worthy of study (Taylor et al., 2016). My study included participants with different areas of expertise including climate change, planning, disaster management and tourism. Although the findings did not disclose any

significant differences in the views among participants with different areas of expertise, the study nonetheless treated the views of each participant equally.

Rather than adopting a mechanical approach, whereby data collected are used to assess existing theories, I instead used grounded theory which facilitated inductive reasoning (Given, 2015). The use of grounded theory fostered creative thinking and allowed me to develop new theoretical insights and expand on existing theories based on the data that I collected and analysed.

Different inquiry strategies were required to solicit data from various sources as the research is pragmatic in its philosophical orientation and the main research variables - climate change, tourism, and plan quality are pluralistic and real-world oriented. These influenced the choice of data collection methods.

Table 3-1 provides a summary of different research approaches including their uses, purpose, research focus, and their main philosophical paradigm. The table also aids in articulating my rationale for selecting a qualitative research approach.

Table 3-1
A Comparison of the Research Approaches

Features	Quantitative	Qualitative	Mixed
Focus	Measuring and identifying patterns: quantity, frequency, magnitude	Sense making - quality or meaning of experience	Generalizing based on findings
Purpose	Predicting and describing - how much, how often, what proportion and the relationship among variables	Explaining: why, how, what influences context or process	Evaluating the relationship among variables and the factors that influence behaviour

Features	Quantitative	Qualitative	Mixed
Role of theory in relation to research	Predetermined testing of hypotheses for theory verification (deductive)	Theory development based on data collection (inductive)	Testing the effectiveness and efficiency of a theory
Design	Structured, predetermined	Flexible, evolving, emerging	Both predetermined and emerging
Philosophical roots	Natural science model - particularly Positivism, Objectivism	Constructivism, Interpretism, Pragmatism	Pragmatism
Data role	External instruments: test surveys	Researcher as instrument	Mixed
Data type	Numerical	Narrative	Combination of texts, numbers, images, sounds
Study population	Large sample size of representative cases	Small number of participants or interviewees, selected purposively	Varies depending on the focus of the research
Nature of Observation	Behaviour under control: isolate causal effect of single variable	Groups of individuals in natural settings; understanding insider's views, meanings, and perspectives	Multiple contexts, perspectives, factors, or conditions
Data collection methods	Population surveys, opinion polls, exit interviews	In-depth interviews, observations, group discussions, document analysis	Multiple forms
Analysis	Statistical	Themes and pattern interpretation	Statistical and textual analysis
Questions	Instrument based questions	Open-ended questions	Both closed and open-ended questions

Sources: (Bryman, 2016; Creswell, 2014; CRQ, 2015; Hennink et al., 2010; Johnson & Christensen, 2014; Leavy, 2017; Morcol, 2012; Punch, 2014; Seasons, 2017; Weathington, Cunningham et al., 2010)

3.3.1 Advantages and Disadvantages of Using the Qualitative Approach

A qualitative approach for my research offered several advantages and disadvantages (Table 3-2). Of note, was that the disadvantages were related to the research design and so minor amendments were made where necessary.

Table 3-2
Advantages and Disadvantages of Employing the Qualitative Approach

Advantages	Disadvantages
Permitted the capturing of participants' perception on tourism and climate change responses in the region Allowed for targeting of specific participants Facilitated the collection of data within participants' context - learning from participants Enabled inductive data analysis Permitted flexibility in the research design - research design was modified because of COVID-19 and participants' availability Accommodated my reflection in the research process	Sample size selection Large data set

3.3.1.1 The Connection Between the Research Approach, Questions and Methods

The research questions guided the research approach and influenced the choice of research methods and techniques (Braun & Clarke, 2013; Hennink et al., 2010). Data for each research question were obtained using content analysis facilitated by the TCCPQ framework, survey administration, and document analysis (Table 3-3). Data produced were mainly in the form of descriptive statistics and numeric values. The use of different research methods enhanced the validity and reliability of the research as the results were corroborated.

Table 3-3*The Connection Between the Research Questions, Methods, Tools, and Data Type*

Research Question	Research Methods	Research Tools	Data Type
1 What are the characteristics of a high-quality climate change tourism plan?	Document Analysis Literature Review Survey	TCCPQ Protocol Literature sources, reports Questionnaire Instrument (Questions 20 & 21)	Descriptive Likert
2 What is the quality of the tourism plans in the Caribbean-SIDS region in addressing climate change?	Survey Content Analysis	Questionnaire Instrument (Question 10) TCCPQ Protocol	Descriptive Numeric
3 How can the quality of tourism plans in the region be improved to address climate change?	Survey Content Analysis - weaknesses highlighted from the evaluation of the plans Document Analysis	Questionnaire (Questions 11-19 & 23) TCCPQ Protocol Literature sources, reports	Descriptive Numeric

3.4 Overview of the Research Methods

The research methods used included document and content analyses and survey administration. Phase One of the research focused on the evaluation of the region’s national tourism plans. This involved the use of content analysis based on the TCCPQ framework that I developed (discussed further in Chapter Four). I wanted to explore tourism stakeholders’ perception of the quality of the plans, the factors that influenced their quality as well as how the quality of the plans could be improved in the context of climate change. These research endeavours comprised Phase Two of the research. In ascertaining the responses, I used the results from the content analysis of the plans and the information from the document analysis of key global and regional reports to guide me in developing the instrument to collect

primary data. After obtaining ethical clearance from the University of Waterloo's Research Ethics Committee on August 12, 2020 (see Appendix 3-1), I then proceeded to administer an e-survey with key tourism, planning, disaster managers and climate change stakeholders in the region. The research methods used are further discussed in subsequent sections of this thesis.

3.4.1 Content Analysis

I used content analysis to evaluate the quality of national tourism plans in the Caribbean-SIDS region in the context of climate change. The process involved a detailed review of the tourism plans in which I organized the information contained in them in various thematic areas to elicit meanings and draw conclusions guided by the research questions. This was done to determine the presence of certain words and themes relating to climate change in the national tourism plans. Essentially, this method involved converting the qualitative texts from the plans into numeric values. The organization of the information into various thematic areas was facilitated by the TCCPQ protocol that I developed. The protocol was divided into eight thematic areas: (a) fact base, (b) goals, (c) policies, (d) implementation, (e) monitoring and evaluation, (f) interorganizational coordination, (g) participation, and (h) plan organization and presentation (see Table 4-4). These elements are further explained in Chapter Four.

3.4.2 Sample for the Content Analysis and Rationale for Selection

It was not possible to conduct a content analysis of all the national tourism plans in the region. This was due to several reasons including, time, resource constraints, feasibility, availability of the plans, and the different languages that the plans were written which were

different from my native language of English (Sahu, 2013). Accordingly, the content analysis using the TCCPQ framework (see Chapter Four) was carried out on thirteen of the tourism plans of English-speaking countries in the Caribbean-SIDS region that were available during the study. Tourism plans that were available online were downloaded from the various regional tourism ministries'/agencies' websites. For those that were not available online, I contacted the respective tourism ministries/agencies to obtain a copy. A database was created in Microsoft Excel to extract information contained in the plans. Some Caribbean-SIDS did not have a tourism plan (e.g., Antigua), while for others, the plans were not available (e.g., Grenada) to the public, hence, the small number of tourism plans reviewed.

The tourism plans that were included in the study were either formally adopted or were being used as the main guide for tourism development in the cases when the plans were in their draft stage. Plans in their draft stage and those published 2000 to 2020 were included in the study. The year 2000 was selected as the base year for the plans since the IPCC's reports began to focus on the impacts of climate change and the need for adaptation in the production of its Third Assessment Report (TAR) (IPCC, 2020). Correspondingly, the climate change scholarship experienced rapid changes in its landscape and growth in publication round about this time (see Haunschild et al., 2016).

Likewise, the climate change-tourism scholarship experienced growth (see Fang et al., 2018) which provided a knowledge base for tourism plans to incorporate climate change. One of the reasons for the inclusion of the draft plan is that the planning process is also important as the plans (Millard-Ball 2013; Reckien et al., 2018). Hence, a plan in its draft stage can be effective in raising awareness and enhancing capacity building (Reckien et al., 2018).

3.4.2.1 Advantages of the Content Analysis Using the TCCPQ Framework

This method was non-intrusive because it was based on existing textual information (Frey, 2018; Neuendorf, 2017). Content analysis provided a snapshot of the quality of the region's tourism plans using descriptive analysis. Since the analysis generated numeric values, the results of the evaluation could be ordered. This allowed me to highlight the plans' qualities that needed improvement. The procedures and computations used were like other plan quality studies. These allowed me to make cross comparisons and determine how well the region's tourism plans fared with other geographic jurisdictions.

3.4.2.2 Disadvantages of the Content Analysis using the TCCPQ Framework

This method could not provide insights on the factors that affected the quality of the region's tourism plans because it produced descriptive statistics. In addressing this limitation, I combined the results of the content analysis with the data gathered from the survey to draw cause-effect conclusions (Allen, 2017). Additionally, it was time consuming to code the information contained in the plans as eight of them contained more than 100 pages. I therefore used the Excel database that I created to assist in coding the plans.

Thirteen plans were included in the study; this limited the scope to conduct advance statistical tests that could yield more meaningful results. Although the sample of plans included in the study was small, it did not diminish the contribution that this study could make to the planning discipline and practice. There was no significant statistical variation in quality among the region's tourism plans. Other plan quality studies have used a smaller sample (see Baker et al., 2012) - seven plans and (Jacobs, 2014) - five plans.

3.4.2.3 Reliability of the Content Analysis

Intercoder reliability is important to increase reliability and consistency when using content analysis for plan quality studies. Scholars recommend using two or more coders to independently score each plan (Baker et al., 2012; Berke & Godschalk, 2009; Stevens et al., 2014). However, due to lack of resources and the nature of independent doctoral research, I was the sole coder. To improve reliability, I randomly selected a sample of the plan quality scores and discussed them with my research supervisor and committee members.

Additionally, I re-evaluated all the plans two (2) weeks after my first evaluation of them to ensure that the scores I obtained were the same as the original scores. The re-evaluation of the plans assisted in reducing biases and errors in scoring the plans.

Further, I provided an explicit description for each of the 56 criteria used (Preston et al., 2011) to assess the core plan qualities (see Appendix 4-1). The Excel database that was created also contained the description of the criteria and examples of the criteria contained within the respective plans. In text references and excerpts of the plans were provided in Chapter Five to justify the assigned scores.

3.4.3 Document Analysis

Document analysis was used to gather data from various reports, policy documents and media releases from respective regional governments on climate change and tourism. This method aided in determining the patterns, discourses and precedents contained therein. Many of the documents were available online which reduced the time for data collection.

3.4.3.1 Advantages of Using Document Analysis

Using document analysis enhanced the research's credibility as it facilitated the triangulation of the findings of the other research methods (Frey, 2018; Seasons, 2017). The document analysis provided background and historical insights on tourism planning practices and the various stages of tourism development across the region. This method assisted in identifying issues and determining how the issues were prioritized in respective plans and policy documents. Reviewing the various documents highlighted areas that need additional probing and assisted in formulating the questions for the survey.

3.4.3.2 Disadvantages of Using Document Analysis

The materials that were included in the document analysis were created independent of my research agenda. In some instances, these materials did not provide adequate information to answer each of my research questions. Accordingly, I relied on the data gathered from the other research methods to compensate for this deficiency where necessary.

3.4.4 Survey

A web-based survey hosted by Qualtrics was administered to participants during the period August 17 to September 11, 2020 (see Appendix 3-2). The questionnaire instrument I designed for the survey comprised open and closed-ended questions. The inclusion of items on the questionnaire was aimed at obtaining respondents' views on: (a) existing tourism plans and tourism planning practices, (b) how climate change impacts on the region's tourism sector, (c) the characteristics of a high-quality climate change tourism plan, (d) the quality of their country's tourism plan in addressing climate change, and (e) their recommendations for improving the quality of the tourism plans. Although I used a survey to gather these data, the

information produced was qualitative in nature and included simple descriptive statistics. It proved difficult to gather these data using an interview due to the limited availability of the respondents to participate in this aspect of my research, hence the use of a survey.

3.4.5 Survey Population and Sample

It was difficult to determine the total population of tourism, planning, disaster management, and climate change stakeholders in the Caribbean-SIDS region due to their dynamic and multiple interlinkages. As such, I developed a list of potential participants using contact information that I obtained from the websites of regional tourism ministries /agencies /departments, the Caribbean Hotel and Tourism Association (CHTA), the Caribbean Tourism Organization (CTO), regional disaster managers, Caribbean Planners Association's database, and the Caribbean Community Climate Change Centre (CCCCC).

The target population included tourism specialists, planners, key public sector workers with responsibility for climate change, disaster managers, leaders of community-based organizations (CBO) with tourism or climate change mandates and academics specializing in planning, climate change, tourism, or disaster management. Only participants who are English speakers were included in the sample due to my language proficiency.

At least two categories of participants were sought from each country. This was done to obtain more than one perspective of the issues from key experts in each country. Another rationale for targeting two distinct categories of participants was that in many of the countries, they did not have some categories of the target experts due to the small size of the countries and human resource capacities. I targeted the directors and senior managers of the various planning, tourism, climate change, and disaster/environmental agencies in the respective countries for their participation in my research.

For the sample of persons included in the survey, my aim was not to achieve statistical validity but rather to get a sense of what is happening in the Caribbean context and to derive insights on the issues surrounding the topic. Accordingly, the responses from the twenty-two participants that were included in my study provided me with valuable perspectives. Ideally, it would have been good to use a larger sample size to obtain responses from participants from all the Caribbean-SIDS nations and from each category of participants. However, I was faced with several constraints including: (a) conducting research during the COVID-19 pandemic, hence some potential participants were unavailable and unreachable; (b) the nature of the geographic area; (c) the limited pool of experts in the region; (d) the time frame to complete my doctoral program; (e) language barrier as some potential participants did not speak English; and (f) financial resources. Based on these constraints, the number of persons that participated in the survey was enough to satisfy the objectives of the research.

Invitations for participation in the online survey were sent to 100 persons across the Caribbean-SIDS region. Potential participants were sent an e-mail recruitment letter (see Appendix 3-3) and in some instances, participants were recruited via telephone (see Appendix 3-4). I also used the snowballing technique to assist in developing the contact information list. For instance, in communicating with potential participants, I asked them to indicate if they could identify other persons from their respective countries who should be included in the study. In some instances, the managers and directors of the agencies I targeted directed me to other members of staff whom they believe could provide me with information for the survey.

Participants were sent an anonymous link in Qualtrics via e-mail to complete the online survey after receiving their consent electronically to participate. They were provided with the

option of indicating whether they preferred this online method, or an alternative method in the form of a paper-based questionnaire or a telephone call. None of the participants who consented to be in the study opted for the paper based or telephone methods. Only twenty-two respondents representing fourteen nations participated in the study. Among these participants, twelve (55%) of them indicated that they had expertise and/or training in planning while eleven (50%) indicated that their expertise was in environmental planning and management. Three (14%) participants noted that they were tourism specialists. Fourteen (64%) participants were in senior management positions - for example, director of planning, deputy director disaster/ hazard management, chief natural resource officer, and senior tourism officer. Eighteen (82%) of the participants were employed in the public sector.

3.4.5.1 Advantages of the Online Survey

The online survey offered convenience as participants completed the survey in their own time. A larger amount of data was collected within a shorter time than if I had used interviews. I was able to obtain real-time responses once the participants clicked on the submit button in Qualtrics. This enabled me to have more control over the period of data collection which aided in improving the planning and delivery of the results of my research (El Khoury & Al-Hroub, 2018). I gained access to participants located in various Caribbean-SIDS nations which would have otherwise been difficult. Since the online survey utilized a larger sample size than the other methods, it permitted generalizations through the extraction of patterns and comparison of findings (Menter et al., 2011).

3.4.5.2 Disadvantages of the Online Surveys

Using the web-based survey may have excluded prospective participants who did not have access to the Internet. Participants completed the survey using an anonymous link. Hence, it was difficult to determine who completed the survey to conduct follow-ups and send reminders to participants for their timely completion. In overcoming this drawback, I used the results from the survey as the questionnaire captured participants' country, job title/role and their area of expertise, to then match it with my participants' database that I created. I then sent participants who had expressed their consent to be included in the study e-mail reminders. Whenever I did not receive a response within three days of sending e-mail reminders, I followed up with telephone calls. In some instances, at least two telephone calls were made to these persons.

After sending the recruitment letters via e-mail, only a handful of the participants responded to my e-mail. Further, some of the e-mails that I sent were returned as they were no longer operational. Accordingly, I found that it was more effective to call each participant within various Caribbean-SIDS to inform them about my study and to solicit their participation. These telephone calls were expensive as in most cases, I did not have a mobile number for these persons, and I had to go through an operator or other administrative personnel to communicate with these persons. My telephone conversations with some of the participants revealed several issues which are instructive for this research as well as future research in the region as outlined subsequently.

3.4.6 Lessons Learned in Communicating with the Research Participants

- There was some level of research fatigue among the participants, as a few of them indicated that they are overwhelmed with requests for participation in research studies and

they never receive feedback from these studies. I informed the participants of my ethical obligations for the research and indicated to them that I would provide them with a summary of my findings.

- Some of the tourism specialists that were contacted expressed concern that they would not be able to provide me with meaningful information on climate change issues and so could not participate in the study. This reflects the disconnect between climate change specialists and those involved in tourism planning. It is also indicative of the extent to which climate change would be covered in the region's tourism plans.
- Some of the agencies in which I sought to obtain their staff members' participation had undergone changes. Consequently, some of the potential participants no longer worked at these organizations or had changed their portfolio. In addition, the contact information on these agencies' websites and databases were outdated. Similarly, the links to some of the governments' websites in the region were not functioning, so I had to use alternative means such as LinkedIn and Facebook to obtain contact information. In some instances, my calls to these agencies assisted in revising the contact list and soliciting additional potential participants.
- My calls to several agencies were unsuccessful. This was because many of the agencies had closed due to COVID-19 restrictions and so persons were working remotely from home. This proved challenging to contact potential participants as in many instances, while they were working from home, their means of communication were not linked with their place of employment as a few persons indicated to me. Therefore, I was not able to contact many of these persons across the region that I deemed to be instrumental to my research.

- Some of the participants indicated their interests and willingness to participate in the study, but they expressed that they had time restrictions as their focus had shifted to dealing with COVID-19. I informed them that I could use an alternative means to administer the survey. However, many of these participants indicated their preference with completing the survey online as they expressed that their responses would be more meaningful via this method. Accordingly, many of them requested that I give them additional time to complete the survey. This was understandable given the nature of the global pandemic, and so I had to extend the period for the survey administration for an additional two weeks. Even after the two-weeks extension, and sending follow up reminders and telephone calls, some of the participants who had initially agreed to participate, did not complete the online survey.

3.5 Triangulation

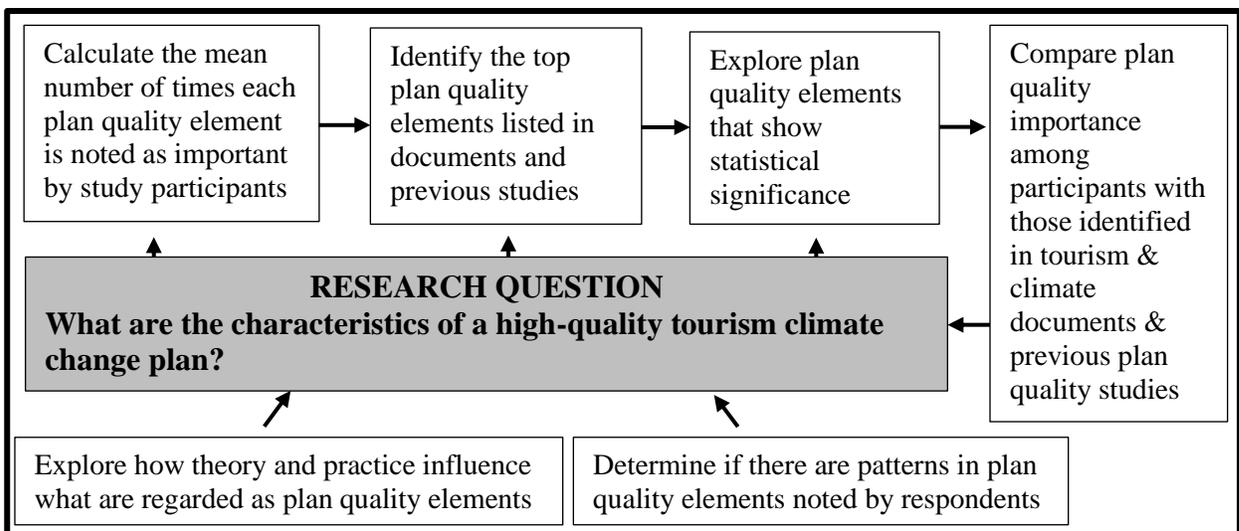
Triangulation was an integral part of this research process because I was able to compare and integrate selected research methods and techniques, and authenticate and confirm the findings of the research. These enhanced the depth and rigour of the research and reduced potential biases of the results (Denzin, 2017a; Hastings & Salkind, 2013; Stoffelen, 2018). Data and methodological triangulations, which are the most common forms (Joslin & Müller, 2016; Hastings & Salkind, 2013), were used for this study. These forms of triangulations were used to cross-check information obtained from the document analysis, content analysis and the survey (Denzin, 2017a; Frey, 2018).

3.6 Data Analysis

An analytical framework was developed to aid in structuring the findings of the data and to highlight the sequence of the activities involved. I used a framework for the data analysis because I collected a large set of qualitative data from the surveys, and the contents of the documents reviewed. This qualitative data set was very exploratory since it covered a wide scope of the research problem and was challenging to analyse as the results were intangible, highly contextual, and in some instances not well structured in their original form (Bazeley, 2013; Pearce, 2012). The analytical framework included several sub-components in the form of matrices, flow diagrams, among others. Figure 3-2 is a sample of the data analysis flow diagram. The qualitative data from the assessment of the plans were coded and analyzed via themes. Descriptive statistics generated by Microsoft Excel were primarily used to analyze the data obtained from assessing the plans and the results from the survey. The data sets were corroborated with the findings of the literature review and were linked to theory, paradigmatic principles, and the research questions.

Figure 3-2

Sample of Data Analysis Flow Diagram



3.7 Ethical Issues Considerations

One of my first obligations in conducting the study, was to obtain ethical clearance from the University of Waterloo's Research Ethics Committee. I completed the requisite documentation and followed through with the procedures. This ensured that I was committed to treat my research participants respectfully and fairly while I engaged in scientific inquiry. There was no harm to participants by way of their inclusion in the study. All participants were treated fairly and were not subjected to discrimination. I included a variety of demographic mix among the potential research population. Informed consent was sought from each participant as they were not forced to participate in the study. Participants were briefed about the study via the use of an information letter (see Appendix 3-5), which cited the overall objectives and purpose of the study. They were informed that they had the right to withdraw their participation from the study.

Gaining the trust of my research participants was essential, so I assured them of the confidentiality of their communication with me and their anonymity in reporting my findings. I took the necessary steps to encrypt files and ensure the secure storage of the instruments used to collect data so that they could not be tracked to a specific participant. For transparency purposes, participants were informed that they will receive a summary of my research findings. I declared that the information collected from them would be for academic purposes and not for any economic gain.

3.8 Modifications to my Research Design

My research design was modified due to the COVID-19 pandemic. I had intended to use Jamaica as a case study for developing the guidelines for improving the quality of the tourism plans in the context of climate change. Among the reasons for initially selecting

Jamaica as the case study included: (a) access to information on tourism and climate change, (b) it is one of few Caribbean-SIDS nations that have a climate change policy framework and has identified tourism as a priority area (GOJ, 2015), (c) it is the largest English-speaking Caribbean-SIDS nation, and (d) the Inter-American Development Bank (IDB) had issued a call in July 2019 for developing a Tourism Strategy and Action Plan for Jamaica entitled, “Promoting Resilience Sustainability, Innovation and Entrepreneurship.”

As outlined in the call for proposal, one of the aims of the IDB project is to, “build the resilience of the Jamaican tourism industry to climate change and other natural and Anthropocene disruptions” (IDB, 2020, p. 5). However, it proved challenging to solicit participants to be included in a focus group discussion during the pandemic. In addition, I had targeted key tourism personnel from respective countries to be included in interview sessions to obtain deeper insights on the plans which were reviewed. Only one person agreed to participate in the interview session. This person requested certain conditions with regard to the use of the data that I collected from them. The requested conditions were counterproductive to my research objectives and so this method was abandoned. Fortunately, I was able to gather information using other methods to develop the guidelines for improving the quality of the tourism plans.

3.9 Chapter Summary and Concluding Remarks

This Chapter has provided an overview of the research design. A discussion was provided on the factors that have influenced the research design, primarily my research philosophy and the purposes of the research. A description of the research design process adopted was given along with the rationale for selecting a qualitative approach, citing reasons such as the purposes of the research, the nature of the problem, and the flexibility of this

approach. I then proceeded to describe the methods of choice in undertaking this research approach. An explanation of the importance of triangulation in ensuring the reliability and validity of the research was then stated. This was followed by a discussion regarding how the data sets were analyzed using a data analysis framework. The Chapter then closed with a brief highlight of potential ethical issues that arose during the research and the strategies that I used to address these issues. Lastly, I have noted the modifications that I made to my research design due to the COVID-19 pandemic as well as the lessons learned in completing the research design.

Chapter Four

4 Plans and Plan Quality Framework

This Chapter lays the foundation for integrating climate change in tourism plans. The Chapter begins with a discussion about plans, a key output of the planning process. An overview of plan quality evaluation is provided - a methodology that has gained popularity in the planning discipline to assess the quality of plans (Berke & Godschalk, 2009; Foster et al., 2016; Lyles & Stevens, 2014; Mansfield & Hartell, 2012; Ramsey-Musolf, 2018).

Dimensions of plan quality evaluation are highlighted as well as the principles and criteria used in determining plan quality. Some of the findings in previous plan quality studies are uncovered, which offer insights into the research design as stated in Chapter Three for formulating the Tourism Climate Change Plan Quality Framework (TCCPQ), the foundation on which this dissertation is built. The Chapter ends with a summary of the key points.

4.1 Plans and Plan Making

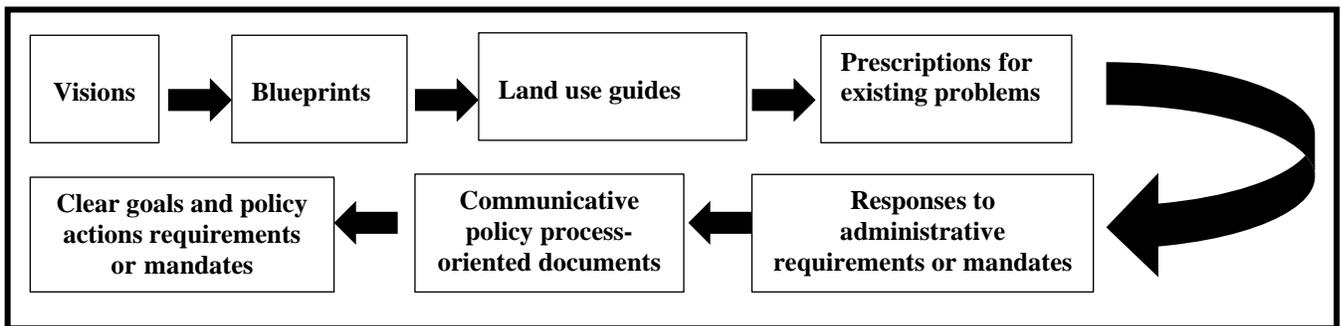
One or more compositional orientations are adopted in the preparation of plans, namely precedent, protocol, policy, and prototype (Hoch, 2009). These orientations mirror a pragmatic approach and regard plans as products of practical reasoning that reflect the contexts in which they were prepared. Plans are instruments that contain visual and/or textual elements to guide future growth and development (Baer, 1997; Berke & Godschalk, 2009; Lyles & Stevens, 2014; Ryan, 2011). As communicative instruments, plans can bring about change (Berke et al., 2015) by influencing and engaging citizens in support of actions and strategies (Bunnell & Jepson, 2011; Connell & Daoust-Filiatrault, 2018; Lyles & Stevens, 2014). They reflect the currency and intellect of the planning profession, and are symbolic of

the integrated approach used to implement strategic goals and policies (Baker et al., 2012; Ryan, 2011). Ideally, plans should facilitate the integration of stakeholders' values through visioning and public engagement.

Plans range along a spectrum from visionary to pragmatic (Figure 4-1). Visionary plans outline the aspirations of a place. Pragmatic plans express clear goals and policy actions aimed at improving legal or statutory procedural frameworks (Baer, 1997; Berke & Godschalk, 2009; Bunnell & Jepson, 2011; Connell & Daoust-Filiatrault, 2018; Faludi, 2000; Guyadeen & Seasons, 2016; Rudolf & Grădinaru, 2019). Most plans are visionary as it is difficult to articulate the entirety of land use changes in a single plan (Hersperger et al., 2018). As discussed in the latter section of this dissertation, the sample of Caribbean-SIDS tourism plans reviewed reflect this typology.

Figure 4-1

Typology of Plans



Sources: (Baer, 1997; Berke & Godschalk, 2009; Bunnell & Jepson, 2011; Connell & Daoust-Filiatrault, 2018; Faludi, 2000; Guyadeen & Seasons, 2016; Rudolf & Grădinaru, 2019)

4.1.1 Plan Making and Plans in Caribbean-SIDS

Regional planning laws make provision for the preparation, implementation and revision of development plans and orders, and permit public participation in the plan making process (see Government of Jamaica, 1999; Government of Trinidad and Tobago, 2014). Despite the provision for the public's input, the plan making process in the region is expert driven and reflects the top-down technical approach (Mycoo, 2017). In many Eastern Caribbean-SIDS, general plans were developed by foreign consultants during the 1980s under the UN's "Assistance in Physical Planning Programme" (Pugh, 2006). Although these plans were perceived to be technically sound and provided opportunities for public participation, some were never implemented as they were viewed as undermining the socio-political culture within the nations. Some of the plans were adopted without adequate review (Mycoo, 2017).

4.2 Tourism Plans

Like general plans, tourism plans differ in their type, geographic coverage, purpose, and time span (Figure 4-2). Among the types of tourism plans are master plans, strategic plans, and tourism management/operational plans. Tourism master plans are detailed documents containing maps and supporting evidence for land use activities to guide growth and development over the long-term (Baer, 1997; Hack, 2018; Kelly, 2010; World Bank, 2015; Veal, 2017). These tourism plans contain specific objectives for tourism including land use patterns, conservation policies, and infrastructure development (Epler Wood, 2017; Williams, 2009). Tourism master plans reflect the rational comprehensive approach in planning. Strategic tourism plans contain broad principles and issues covering several years (Veal, 2017; Vukotic & Vojnović, 2019). Tourism management/operational plans are

statutory documents covering visitor access and site facilities and management (Veal, 2017). These plans have a strong orientation towards short-term market planning, portfolio planning, and destination branding (Andriotis et al., 2019; Hsu & Gartner, 2012).

As discussed in Chapter Two, early manifestations of tourism planning were market-oriented in their focus. This has influenced the nature of existing tourism plans (Hsu & Gartner, 2012). In addition, the disconnect between tourism planning scholars who often take a normative view and tourism planning practitioners, has affected the production and contents of current tourism plans (Andriotis et al., 2019).

It was previously acknowledged that tourism plays a significant role in the economy of Caribbean-SIDS. The tourism plans are fundamental to the tourism sector and the region. Therefore, it is important that national tourism plans within the region are done properly and are of a high quality. Chapter Five further explores the extent of the quality of the region's tourism plans.

Figure 4-2

General Characteristics of Tourism Plans

GEOGRAPHIC COVERAGE	SCOPE	TYPE	TIME SPAN
<ul style="list-style-type: none"> • Regional (<i>multi-countries</i>) • National • State/Province/Parish • Local – (<i>destination, community</i>) 	<ul style="list-style-type: none"> • Sector-focused • Subsector focused- (<i>workforce development, product development, marketing/branding</i>) • Sub-plan of a larger plan- (<i>National Development Plan, Regional Plan, Recreational/Park Management Plan</i>) 	<ul style="list-style-type: none"> • Master plan • Management • Strategic- (<i>contingency planning, economic development, conservation, energy transportation, climate change etc. action plan</i>) 	<ul style="list-style-type: none"> • Long-term (<i>10-15 years</i>) • Medium-Term (<i>4-9 years</i>) • Short-Term (<i>1-3 years</i>)

Sources: (Epler Wood, 2017; Hack, 2018; Kelly, 2010; Pearce, 2000; Veal, 2017; Vukotic & Vojnović, 2019; World Bank, 2015)

4.3 Climate Action Plans

Climate action plans (CAPs), also referred to as climate change plans or climate plans (Tang et al., 2010), are policy documents that address climate change issues and provide guidance on decisions relating to mitigation and adaptation efforts (Boswell et al., 2019; Guyadeen et al., 2019; Reckien et al., 2018). CAPs may be visionary, outlining broad future policy development and coordination, or detailed with specific goals, clear objectives, and robust methods for implementation (Bassett & Shandas, 2010; Boswell et al., 2012).

The strategies outlined in CAPs address climate change challenges through land use and transportation solutions such as enhanced public transit, compact community, and green building codes (Bassett & Shandas, 2010). From a theoretical perspective, policies on climate action can be integrated in any type of plan (Baynham & Stevens, 2014). Hence, CAPs may be stand-alone plans (e.g., Community Climate Action Plan, Alameda, California) or may be

integrated in other plans (e.g., PlaNYC: A Greener, Greater New York). They vary in role and content and may cover specific sectors (Boswell et al., 2012; Bingham, 2018). Canada, Australia, and New Zealand are among the few jurisdictions that produce CAPs specific for the tourism sector (see Becken et al., 2018; RMOW, 2016). Climate actions for the tourism sector are often covered in national climate plans or policy documents.

The production of CAPs is strongly associated with political will which influences the climate planning process adopted, the type of plan, and the strategies contained within the plan (Bassett & Shandas, 2010). Awareness levels, institutional and legislative arrangements, level of local expertise, political influence, funding, and size of jurisdiction can also affect the production of CAPs (Reckien et al., 2018). In most countries, the development of CAPs is at the discretion of the local authorities. However, Denmark, France, Slovakia, and United Kingdom have made the adoption of CAPs compulsory and have provided guidance for their development and contents (Reckien et al., 2018). Globally, CAPs contain seven key components (Table 4-1).

Table 4-1*Contents of Climate Action Plans*

Section	Contents
1	Background information on climate change – including potential impacts and climate vulnerability assessment
2	Local GHG emissions inventory and forecast
3	Goals and objectives – including emissions reduction targets
4	Emission reduction policies and actions – quantified, based on the best available science and appropriate for the jurisdiction that cover energy, transportation, solid waste, and land use
5	Adaptation strategies and policies – based on the best available science and appropriate for the jurisdiction
6	Implementation programme – including assignment of responsibility, timelines, cost, and financing mechanisms
7	Plan for monitoring and evaluation

Sources: (Baynham & Stevens, 2014; Boswell et al., 2019; Tang et al., 2010)

4.3.1 Climate Action Plans in Caribbean-SIDS Region

Only Grenada, St. Lucia, and St. Vincent and the Grenadines have made a National Adaptation Plan (NAP) submission to the UNFCCC. These three countries received support to complete their NAPs from the UNDP’s Japan-Caribbean Climate Change Partnership (J-CCCP). St. Lucia developed a National Adaptation Strategy for its tourism sector in 2015 (Environmental Solutions Limited, 2015). This tourism-specific strategy was a joint initiative between St. Lucia’s government and the CCCCC and covers a five-year period (2016-2021) (Government of St. Lucia, 2018). While Grenada and St. Vincent and the Grenadines have completed their NAPs, these do not explicitly include strategies related to tourism which is critical to the region’s economy. Hence, there is a need to improve the quality of the region’s tourism plans in addressing climate change responses.

4.4 Plan Quality

An experienced planner might be able to distinguish high quality plans from low quality plans, but the definition of a “quality” plan is elusive in the planning literature (Baer, 1997; Bunnell & Jepson, 2011). In some instances, a high quality plan is associated with subjective terms such as, “good plan” (Berke & Godschalk, 2009; Bunnell & Jepson, 2011; Eagles et al., 2014; Norton, 2008), “better plan,” (Baer, 1997; Lyles & Stevens, 2014) or “strong plan” (Jun, 2017; Stevens, 2013). Baker et al. (2012) defined quality as, “the plan’s ability to convey clearly, and to provide sufficient evidence and analysis of each ... criteria within each of the structural elements of the plan” (p. 131). This definition by Baker et al. (2012) is similar to Norton’s (2008) interpretation of quality as, “its ability to convey those goals and policies clearly and to provide evidence and analysis sufficient to justify them” (p. 433). This definition of quality by Norton, provides no additional insight and the use of the term “sufficient evidence” is subjective. Recently Jun (2017) defined quality as “analyzing planning documents based on certain criteria” (p. 251), while Ramsey-Musolf (2018) interpreted plan quality as “method with which scholars assess a plan’s content against an organized and subjective criteria that epitomizes planning theory or implements best practices” (p. 2).

4.4.1 Core Plan Quality Principles

Despite the lack of consensus among planners in defining the elements of a “high quality plan,” there is consensus on certain basic criteria that should be applied to assess the quality of plans, and from which plans can be compared to assist in making improvements in the plan making process. These criteria represent the outcome of a measured process of enhancing and refining what are the characteristics of a good plan based on a set of

publications on plan quality evaluation studies during the late 1990s and early 2000s (as depicted in Table 4-2).

These criteria are normative in their orientation and are grounded in the rational comprehensive view of planning. Initially, the criteria reflect an interpretation of plans as blueprints (Connell & Daoust-Filiatrault, 2018; Lyles & Stevens, 2014). Since then, scholars have categorized these initial plan quality criteria and have proposed additional dimensions of plan quality. Newer versions of plan quality criteria now include a policy focus (strength) (Connell & Daoust-Filiatrault, 2018); discursive / communication (persuasive) (Bunnell & Jepson, 2011; Connell & Daoust-Filiatrault, 2018; Rudolf & Grădinaru, 2019) and action (Rudolf & Grădinaru, 2019) elements.

Table 4-2

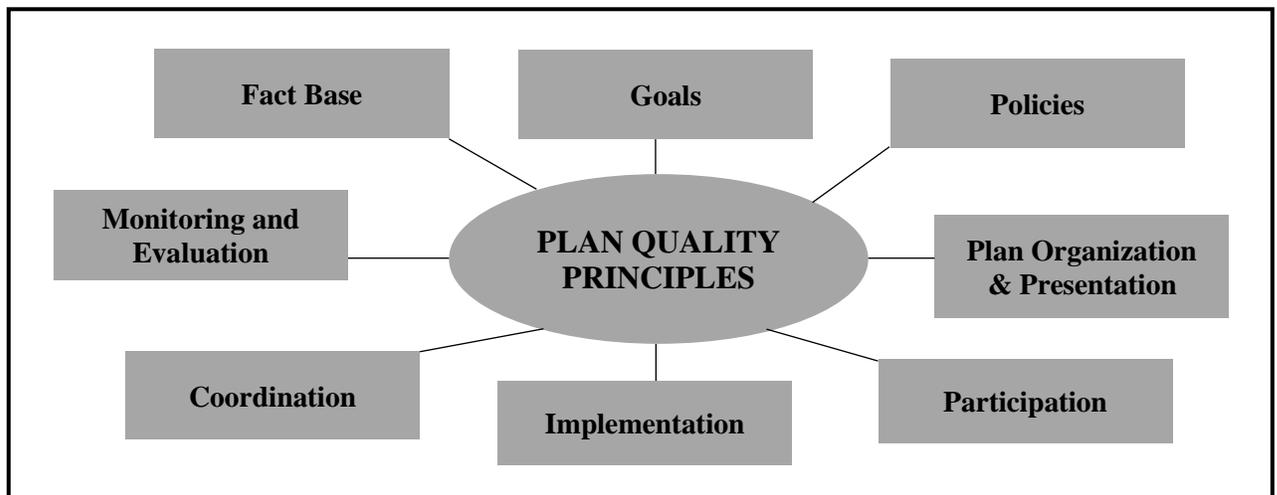
Seminal Works that Have Influenced Plan Quality Evaluation Scholarship

Author and Year	Major Plan Quality Criteria	Component Criteria	Additional Notes
(Kaiser et al., 1995)	i) A Strong Factual Basis ii) Clearly Articulated Goals iii) Appropriately directed policies		
(Baer, 1997)	i) Adequacy of content ii) “Rational Model” considerations iii) Procedural validity iv) Adequacy of scope v) Guidance for implementation vi) Approach, data, and methodology vii) Quality of communication viii) Plan format		Provided a comprehensive list of 60 criteria under eight categories
(Norton, 2008)	<p>Analytical Quality</p> <p>i) Fact base ii) Infrastructure analysis iii) Land suitability analysis iv) Public participation v) Plan presentation vi) Implementation program</p> <p>Consistency</p> <p>vii) Vertical mandate/ coordination viii) Horizontal ix) Internal x) Implementation</p>	<p>Accuracy</p> <p>Legitimacy</p> <p>Comprehensibility / Legibility</p> <p>Sincerity</p>	Recommended the linkage between plan quality and communicative action theory
(Berke & Godschalk, 2009)	<p>Internal Characteristics</p> <p>i) Issue identification and vision ii) Goals iii) Fact base iv) Policies v) Implementation vi) Monitoring and evaluation vii) Internal consistency</p> <p>External Characteristics</p> <p>viii) Organisation and presentation ix) Interorganizational coordination x) Compliance</p>		Recommended two key conceptual dimensions of plan quality: a) Internal and b) External based on ten characteristics. Items i-vi reflected the sequence of tasks in making plan elements that comprise a comprehensive plan

There are eight commonly adopted core plan quality principles which focus on both the content and communicative aspects of plans as highlighted in Figure 4-3. These core principles provide a standard for which to distinguish good plans from bad ones (Guyadeen et al., 2019; Horney et al., 2017; Lyles & Stevens, 2014). My research adopts these eight core plan quality principles. The rationale for adopting these principles is that they permit cross comparisons and multiple plan type assessments which can be useful in improving the effectiveness of the planning profession (Horney et al., 2017; Lyles et al., 2014).

Increasing consensus among plan quality researchers has led to the expansion of knowledge across various temporal and spatial domains of planning. The plan quality domain now includes: (a) disaster recovery and hazard mitigation (Horney et al., 2017; Lyles et al., 2014; Jacobs, 2014); (b) climate change (Baker et al., 2012; Baynham & Stevens, 2014; Guyadeen et al., 2019; Horney et al., 2017; Stevens, 2013; Tang et al., 2010; Woodruff & Regan, 2019); (c) housing (Ramsey-Musolf, 2018); (d) natural resource conservation (Foster et al., 2016; Tang et al., 2011) and transportation (Mansfield & Hartell, 2012).

Figure 4-3
Commonly Used Core Plan Quality Principles



4.4.2 Factors that can Affect Plan Quality

Scholars have concluded that jurisdictions with state mandates produce better plan quality documents and so this increases the prospects of accomplishing the desired planning outcome (Baynham & Stevens, 2014; Tang et al., 2010). Some research has concluded that mandates influence plan quality via encouraging planning authorities to develop better information bases, and to be more comprehensive in their articulation of goals and policies that strongly influence development (Bassett & Shandas, 2010; Berke & Godschalk, 2009). However, other researchers maintain that state mandate alone is not a good predictor of plan quality (see Bunnell & Jepson, 2011; Hoch, 2009; Pendall, 2001; Woodruff & Regan, 2019).

Although Bunnell & Jepson (2011) focused on the persuasive and communicative qualities of plans, they found that mandated plans are too rigid and standardized, and as such, constrain or undermine the communicative and persuasive characteristics of plans. Their study also found that the inclusion of private consultants in the plan making process enhances the communicative and persuasive qualities of the plans probable because these consultants have greater experience and expertise in plan writing. Others agreed that the inclusion of consultants enhances plan quality (Loh & Norton, 2015; Rydningen & Salbu, 2019).

Pendall (2001) advised that providing incentives and assistance as well as enhancing the capacity of technical professional staff would result in better plan quality than unfunded state mandates. Woodruff & Regan (2019) claimed that multiple agency team authorship improves the quality of plans and concluded that resources, organizational skill, perception, and understanding are essential to produce high quality plans. In another study, Tang et al. (2010) disclosed that stakeholder consultation and information sharing enhance plan quality.

4.4.3 Plan Quality Evaluation Research

Plan evaluation entails the acquisition and use of information to provide feedback on the significance or state of planning interventions (Connell & Daoust-Filiatrault, 2018). It involves converting qualitative texts contained in plans into quantitative measures (Lyles & Stevens, 2014; Woodruff & Regan, 2019). The evaluation can be conducted during and/or after the plan making process and includes: (a) plan alternative assessment (a priori, or ex ante which guides the selection of planning alternative by comparing their expected impacts), (b) plan testing and evaluation (ongoing monitoring or formative evaluation which measures progress during the planning process to redirect their course if necessary), (c) plan critique, (d) comparative research and professional evaluation, (e) post hoc evaluation of plan outcomes (ex post facto, or retrospective - evaluation, and (f) visual interpretation of plans (Baer, 1997; Connell & Daoust-Filiatrault, 2018; Laurian et al., 2010; Lyles & Stevens, 2014; Ryan, 2011).

Plan quality evaluation is an approach that has become popular among planning scholars due to its objectivity, practicality, straightforwardness, and its accessibility to researchers (Guyadeen & Seasons, 2016). This approach to evaluation involves, “researchers using systematic methodology to conduct comparative research and professional evaluation of plans after they have been developed” (Lyles & Stevens, 2014, p. 433). The approach applies a set of established criteria to highlight the strengths and weaknesses of a plan (Berke & Godschalk, 2009; Lyles & Stevens, 2014; Woodruff & Stults, 2016). For this dissertation, I submit that plan quality evaluation is a methodical procedure whereby both the internal and external characteristics of a plan are assessed quantitatively and qualitatively using a set of established standards via the use of a protocol, to highlight the strengths and weaknesses of a

plan with the aim of improving and informing the plan making process. Most research on plan quality studies has used content analysis methods to determine the presence or absence of certain plan characteristics (Berke & Godschalk, 2009; Lyles & Stevens, 2014). I have adopted this approach in my research program (as explained in Chapter Three).

4.4.3.1 Significance of Plan Quality Evaluation Research

An optimal plan should reflect the meaningful principles and advanced practices. The achievement of plan optimality can only be facilitated through a process of systematic evaluation which provides a benchmark for ensuring that plans attain a desirable standard of content (Berke & Godschalk, 2009). Plan quality evaluation is premised on the idea that high-quality plans are more inclined to advance a communal vision than lesser quality plans (Lyles & Stevens, 2014; Woodruff & Regan, 2019). The results of plan evaluation research can help foster a dynamic planning process by tracking planning initiatives and informing the requisite changes needed (Guyadeen & Seasons, 2016; Oliveira & Pinho, 2010). Evaluation gives legitimacy to the field of planning because it provides opportunities to assess the value and effectiveness of the planning process, apprise key stakeholders of planning outcomes and processes, and guide future processes (Berke et al., 2015; Connell & Daoust-Filiatrault, 2018; Eagles et al., 2014; Horney et al., 2017; Jacobs, 2014).

Plan quality evaluation provides planners and politicians with insights about current planning practices via cross-comparisons of plans (Lyles & Stevens, 2014; Woodruff & Regan, 2019). Cross-comparisons allow for detailed analysis and can help to develop a better understanding of how to improve plans in different contexts (Baer, 1997; Ryan, 2011). Through these new insights, planning theories can be refined which leads to the expansion of practical knowledge (Woodruff & Regan, 2019). Therefore, plan quality evaluation

engenders continuous learning in planning (Berke & Godschalk, 2009; Lyles & Stevens, 2014; Oliveira & Pinho, 2010).

4.4.3.2 Challenges in Plan Quality Evaluation Studies

A customary practice in plan quality evaluation studies is to assign an equal weight to each plan quality characteristic to allow for cross comparison. By assigning equal weights, a researcher may inadvertently undermine or overvalue certain plan characteristics, or may not reflect the role that a particular item in the plan plays in fulfilling the plan's purpose (Guyadeen et al., 2019; Stevens, 2013). Since each plan is unique, the context that surrounds the various facets of the plan must be taken into consideration. The criteria used to assess plans must reflect its purpose (Baer, 1997). However, most existing plan quality evaluation studies provide no guidelines regarding how to rank the various plan quality components based on a plan's purpose. A possible approach to this challenge is proposed in Chapter Seven.

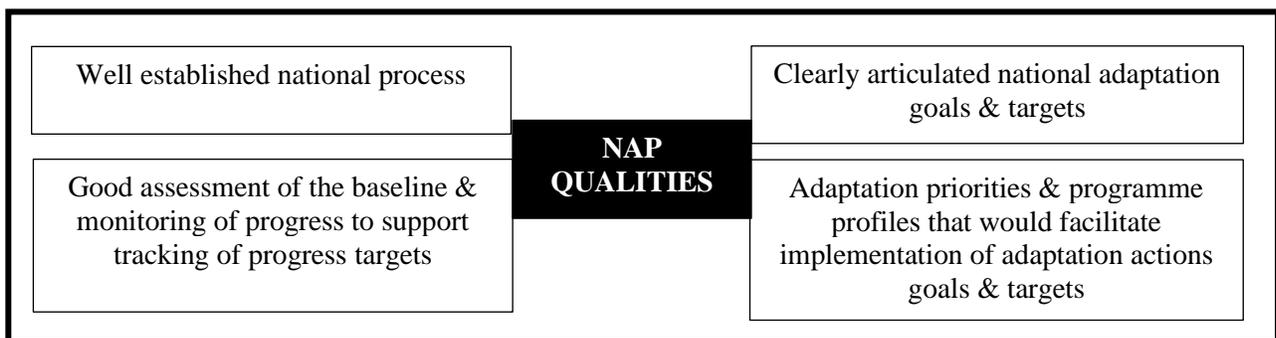
Different applications and conceptual framing are adopted in plan quality studies as there is no standard plan evaluation method (Berke & Godschalk, 2009; Padeiro, 2016). Studies adopt various scoring schemes to assess the criteria for each core plan quality principle. For example, some studies use binary scoring (see Fu et al., 2017; Guyadeen et al., 2019; Horney et al., 2017), a few uses step scoring (see Baynham & Stevens, 2014; Lyles et al., 2014), while others use an ordinal scoring scheme (see Li & Song, 2016). In addition, the number of criteria used in a plan quality protocol varies. To compound matters, an evaluation can take place at various stages of the planning process (Connell & Daoust-Filiatrault, 2018). These challenges raise concerns with regard to the reliability and validity of cross comparisons among plan quality studies. As explained further in Section 4.6, I used an

ordinal scoring scheme for this research to assess existing tourism plans in the Caribbean-SIDS region.

4.4.4 Plan Quality in the Climate Change Domain

There are no core plan quality principles in the climate change domain (Bassett & Shandas, 2010). Climate plan quality studies often adopt principles used in general plan evaluation research. Some climate change plan quality studies use a combination of the UNFCCC’s recommended four key characteristics of a high quality and effective NAP (Figure 4-4), the ICLEI’s guidelines for the contents of a climate plan as summarized in Table 4-1, and the UN Habitat’s guidelines for city level CAPs (UN Habitat, 2015), to develop protocols to assess plans (see Baynham & Stevens, 2014; Boswell et al., 2019; Tang et al., 2010). In developing the TCCPQ framework, I was guided by these conventions as explained further in the latter sections of this Chapter.

Figure 4-4
NAP’s Quality Characteristics



Source: (UNFCCC, 2020b)

4.4.4.1 Factors that Affect Climate Plan Quality

Few studies have quantitatively explored the factors that can affect the quality of climate plans. Tang et al. (2010) developed a model to explore how three main contextual variables influenced the quality of local climate plans in the United States: (a) capacity, which included political will, state mandates and community; (b) climate risk which included coastal distance, population density, and hazard damage; and (c) emission stress, which included energy consumption, light transportation, average commuting time and vehicular emission.

In terms of variables relating to capacity, Tan et al.'s (2010) research confirmed that state mandates for effective plans and planning, can increase plan quality significantly. Tang et al. (2010) reasoned that while local jurisdictions may not feel that climate change is their responsibility, the mandates provide the motivation for adopting strong climate change plans. Their research also disclosed that political will and community wealth did not significantly affect the quality of the climate action plans. Analysis of the climate risk variables demonstrated that only hazard damage adversely affected plan quality. The assumption was made that those jurisdictions with prior experience of climate damage would be more prepared to address climate change risk. In contrast, their research revealed that the hazard damage reduced the respective jurisdictions' ability to plan for climate change. Within the emission stress variables, increased commuting times was found to reduce the quality of climate plans.

Other studies that adopted a qualitative approach, found that climate plan quality may be affected by the capacity of the local authority, degree of commitment to the planning enterprise, and the presence (or absence) of existing communication channels within

planning systems (Lindell, 2019). Similarly, Baker et al. (2012) noted that the lack of political support affects the quality of climate plans as some politicians are climate change deniers and are interested in short-term gains. Hence, these politicians view climate change as an overwhelming phenomenon (i.e., why bother to act in the face of such a monumental trend?) which results in a lack of support given to the plans, consequently affecting plan quality. Another study found that climate plans written by planners contained stronger goals than conventional land use plans (Woodruff & Stults, 2016). This same study also found that plan quality improved with plan-making and implementation experience.

Interestingly, the longitudinal study of British Columbia's Municipal land use climate plans conducted by Stevens and Senbel (2017), disclosed that there was no significant improvement in the quality of newly updated plans when compared with their previous counter parts. A newer study by Woodruff and Regan (2019), which examined NAPs globally found that financial resources, vulnerability governance, and the planning process contributed to the quality of climate plans. Chapter Five explores the extent to which these factors has affected the quality of the region's tourism plans.

4.5 The Case for Integrating Climate Planning in Tourism Plans

Integrating climate change responses in the tourism sector can be challenging for key decision-makers since there can be conflicts with established goals such as sustainability and economic growth (Becken et al., 2020). However, given the heavy reliance on tourism in Caribbean-SIDS and the vulnerability of its tourism sector to climate change as noted previously by scholars, the inclusion of climate actions in tourism plans is essential. The challenge (and opportunity) is to integrate climate change policies and strategies in regional

tourism plans as a way to ensure that future decisions about tourism development are aligned with climate change goals and objectives (see Table 4-3).

Table 4-3

Rationale for Integrating Climate Planning in Caribbean-SIDS Tourism Plans

Thematic Area	Rationale
Major influence	Significant private sector presence can help develop opportunities for private investments in climate action (Government of Grenada, 2018).
Leadership	Tourism contributes to climate change and so can play a leading role by reducing its emissions across its business and supply chains, manage its climate-related risks, develop business models that focus on low-carbon economy, and contribute to the global 1.5°C limit (WEF, 2020b).
Image	The sector thrives off its image and so can market itself as sustainable.
Reduce operating cost	Operating costs can be reduced by pursuing climate actions that are geared towards energy and water efficiency strategies.
Access to funding	With a tourism plan that integrates climate actions, regional governments can access climate funds to support climate action initiatives in the sector.
Increase climate change awareness	The sector can be a forerunner of sustainable consumption, production, and climate change awareness and garner support for more ambitious climate actions regionally (Scott et al., 2019; World Bank, 2017).
Increase resiliency of the sector	The sector has experience in contributing economically to improving resilience in the aftermath of different crises (Boswell et al., 2012; UNWTO, 2020).
Give legitimacy to climate actions in the sector	Integrating climate actions in national tourism plans will give legitimacy to the region’s climate planning processes and actions. Climate change is a cross-cutting issue and tourism affects various aspects of the society - the integrative approach can reduce gaps and overlaps (Baynham & Stevens, 2014).

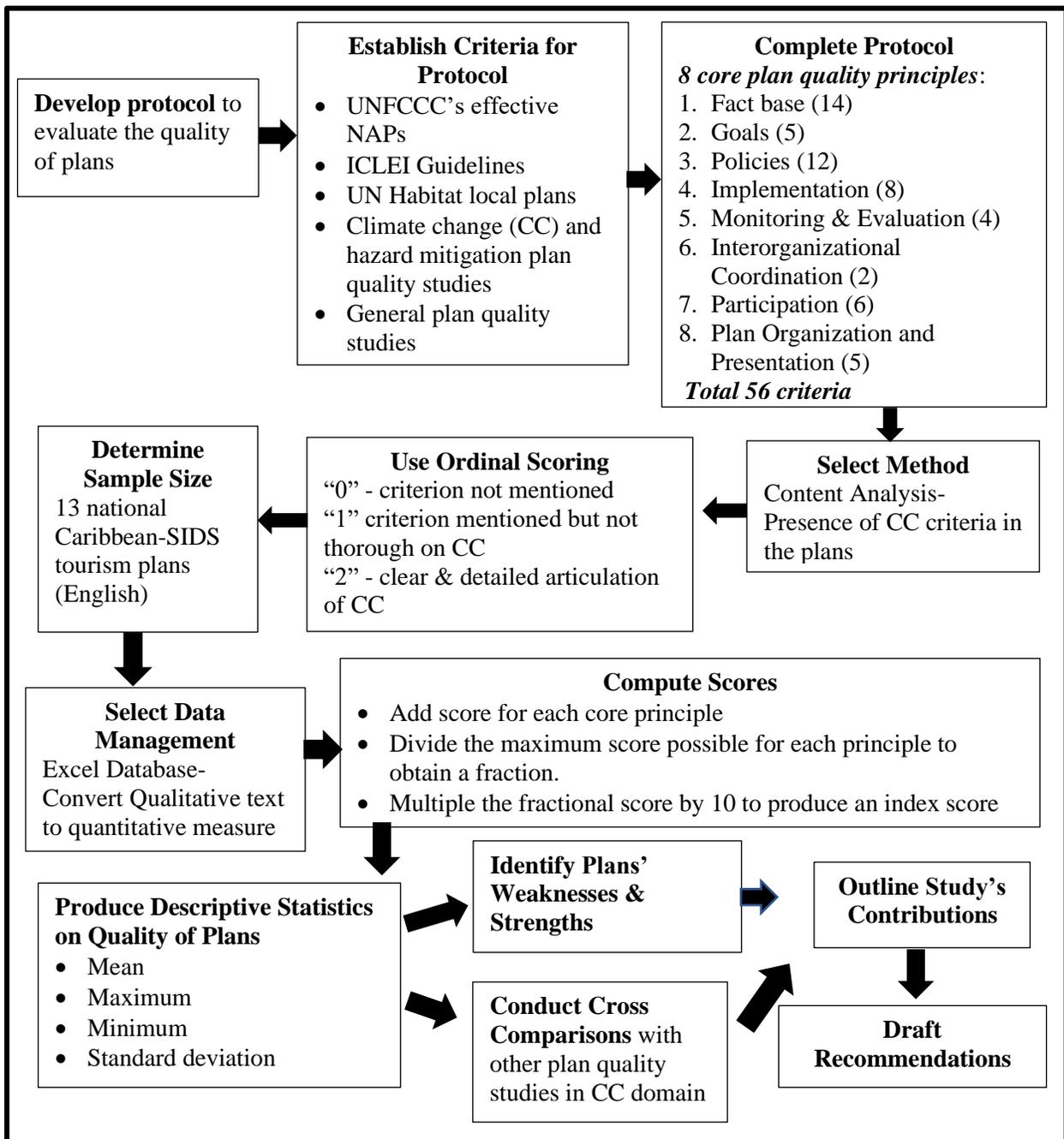
4.6 Tourism-Climate Change Plan Quality (TCCPQ) Analytical Framework

The previous section has explored plan quality and plan studies and laid the foundation for the framework that I developed. I developed the Tourism Climate Change Plan Quality

(TCCPQ) analytical framework to assess the content of the region’s tourism plans in the context of climate change (Figure 4-5). The framework consisted of several steps as depicted in the illustration.

Figure 4-5

The TCCPQ Analytical Framework



The TCCPQ framework comprised a protocol based on eight core plan quality principles and fifty-six criteria (see Appendix 4-1). The eight core plan quality principles included: (a) fact base, (b) goals, (c) policies, (d) implementation, (e) monitoring and evaluation, (f) interorganizational coordination, (g) participation, and h) plan organization and presentation (Table 4-4).

The core plan quality principles were modeled from previous plan quality conceptualizations, in particular, the hazard mitigation (Berke & Godschalk, 2009; Berke et al., 2012; Horney et al., 2017; Jacobs, 2014; Lyles et al., 2012; Lyles et al., 2014) and climate change domains (Baker et al., 2012; Baynham & Stevens, 2014; Guyadeen et al., 2019; Fu et al., 2017; Li & Song, 2016; Stevens & Senbel, 2017; Tang et al., 2010; Woodruff & Stults, 2016). The criteria used to operationalize each core plan quality principle that is reflected in the TCCPQ framework were based on the work of these scholars, global best practices on climate change plans, recommendations from the ICLEI, the guidelines for UNFCCC’s NAPs and those for UN-Habitat’s local climate plans. My study has combined and expanded the methodology used in previous plan quality studies.

Table 4-4

Core Plan Quality Principles and the Number of Criteria Used

Core Plan Quality Principles	Description of the Core Plan Quality	Number of Criteria Used	Guiding Plan Quality Studies used to Assist in Developing the Criteria
1. Fact /Information Base	Current and future conditions of the tourism sector as well as the empirical foundation to ensure that the key	14	(Baker et al., 2012) (Baynham & Stevens, 2014) (Berke et al., 2015) (Berke & Godschalk, 2009) (Fu et al., 2017) (Guyadeen et al., 2019) (Horney et al., 2017)

Core Plan Quality Principles	Description of the Core Plan Quality	Number of Criteria Used	Guiding Plan Quality Studies used to Assist in Developing the Criteria
	problems including climate change are identified and prioritized, and the policies are well-informed.		(Jacobs, 2014) (Kaiser et al., 1995) (Kumar & Geneletti, 2015) (Li & Song, 2016) (Lyles et al., 2014) (Norton, 2008) (Stevens & Senbel, 2017) (Woodruff & Stults, 2016) (Woodruff & Regan, 2019)
2. Goals	Broad statements of the desired future conditions that reflect the values of major tourism stakeholders in responding to climate change.	5	(Baker et al., 2012) (Baynham & Stevens, 2014) (Berke et al., 2015) (Berke & Godschalk, 2009) (Fu et al., 2017) (Guyadeen et al., 2019) (Horney et al., 2017) (Jacobs, 2014) (Kaiser et al., 1995) (Kumar & Geneletti, 2015) (Li & Song, 2016) (Lyles et al., 2014) (Stevens & Senbel, 2017) (Woodruff & Stults, 2016) (Woodruff & Regan, 2019)
3. Policies	Guidelines to be followed to ensure that the plan's climate change targets are met.	12	(Baynham & Stevens, 2014) (Berke et al., 2015) (Berke & Godschalk, 2009) (Fu et al., 2017) (Guyadeen et al., 2019) (Horney et al., 2017) (Kaiser et al., 1995) (Kumar & Geneletti, 2015) (Li & Song, 2016) (Lyles et al., 2014) (Stevens & Senbel, 2017) (Woodruff & Stults, 2016) (Woodruff & Regan, 2019)
4. Implementation	Provisions regarding how the plan's climate change or climate	8	(Baer, 1997) (Baker et al., 2012) (Baynham & Stevens, 2014) (Berke et al., 2015)

Core Plan Quality Principles	Description of the Core Plan Quality	Number of Criteria Used	Guiding Plan Quality Studies used to Assist in Developing the Criteria
	change-related policies should be carried out once it is adopted, such as organizational responsibilities, timelines, and funding.		(Berke & Godschalk, 2009) (Fu et al., 2017) (Guyadeen et al., 2019) (Horney et al., 2017) (Li & Song, 2016) (Jacobs, 2014) (Lyles et al., 2014) (Norton, 2008) (Stevens & Senbel, 2017) (Woodruff & Stults, 2016) (Woodruff & Regan, 2019)
5. Monitoring and Evaluation	Guidelines on how the plan's policies should be evaluated to ensure that actual development meets stated goals for tracking the performance of climate change policies contained in the plan.	4	(Baker et al., 2012) (Berke et al., 2015) (Berke & Godschalk, 2009) (Guyadeen et al., 2019) (Jacobs, 2014) (Li & Song, 2016) (Lyles et al., 2014) (Woodruff & Stults, 2016) (Woodruff & Regan, 2019)
6. Interorganizational Coordination	Outline of the interdependent nature of tourism plan making and implementation processes for climate change (e.g., coordination with other governments agencies etc.)	2	(Berke et al., 2015) (Berke & Godschalk, 2009) (Fu et al., 2017) (Guyadeen et al., 2019) (Horney et al., 2017) (Jacobs, 2014) (Lyles et al., 2014) (Norton, 2008) (Woodruff & Stults, 2016) (Woodruff & Regan, 2019)
7. Participation	Identification of the formal and informal actors engaged in the tourism plan making process and climate change response initiatives	6	(Berke et al., 2015) (Berke & Godschalk, 2009) (Guyadeen et al., 2019) (Horney et al., 2017) (Jacobs, 2014) (Lyles et al., 2014) (Norton, 2008) (Woodruff & Stults, 2016)

Core Plan Quality Principles	Description of the Core Plan Quality	Number of Criteria Used	Guiding Plan Quality Studies used to Assist in Developing the Criteria
			(Woodruff & Regan, 2019)
8. Plan Organization and Presentation	User friendliness and attractiveness of the plan, such as the inclusion of an executive summary; cross-referencing; table of contents; glossary of terms; illustrations etc.	5	(Baer, 1997) (Guyadeen et al., 2019) (Jacobs, 2014) (Norton, 2008)
TOTAL		56	

Using content analysis, the TCCPQ protocol assisted in systematically assessing the quality of the contents of the plans. This involved analysing the textual contents of the plans and converting them to numeric values by using an ordinal scoring scheme as explained further. I then created an Excel database which was developed based on the protocol. The ordinal scores obtained for each criterion were entered in Microsoft Excel, after which an index score was computed based on the eight core plan quality principles that covered the criteria that comprised the protocol. Using Microsoft Excel, descriptive statistics that comprised the mean, maximum, minimum, and standard deviation were generated. This information assisted in identifying the plans' weaknesses and strengths. With this analytical approach, a plan that received an index score of 8.0 and above is considered strong, an index score of 6.0 -7.9 is fair, while an index score that is less than 6.0 is regarded as weak.

The research mirrored the method of assessment and the quantitative measurement of previous plan quality studies. This assessment method enabled cross comparisons among plans and the findings of other studies (Berke et al., 2015; Berke et al., 2012; Woodruff & Stults, 2016). However, previous plan quality studies have adopted different scoring schemes

as noted previously. Therefore, this research used an ordinal scoring scheme similar to the approach adopted by Li & Song (2016), whereby each criterion of the TCCPQ framework scored 0-2. In this case, “0” denoted that the criterion was not mentioned in the plan, “1” denoted that the criterion is mentioned but not thorough in its articulation of climate change and “2” denoted a clear and detailed articulation of the climate change criterion.

Using the ordinal scoring system permitted standardization of the various criteria among each core plan quality principle. Also, rather than only assessing whether a criterion was absent or present in the plan as is the case with binary scoring, I was able to determine if each criterion was thorough in its articulation. The ordinal scoring provided insight on the extent to which climate change responses for the tourism sector are being seriously considered by regional governments and policymakers.

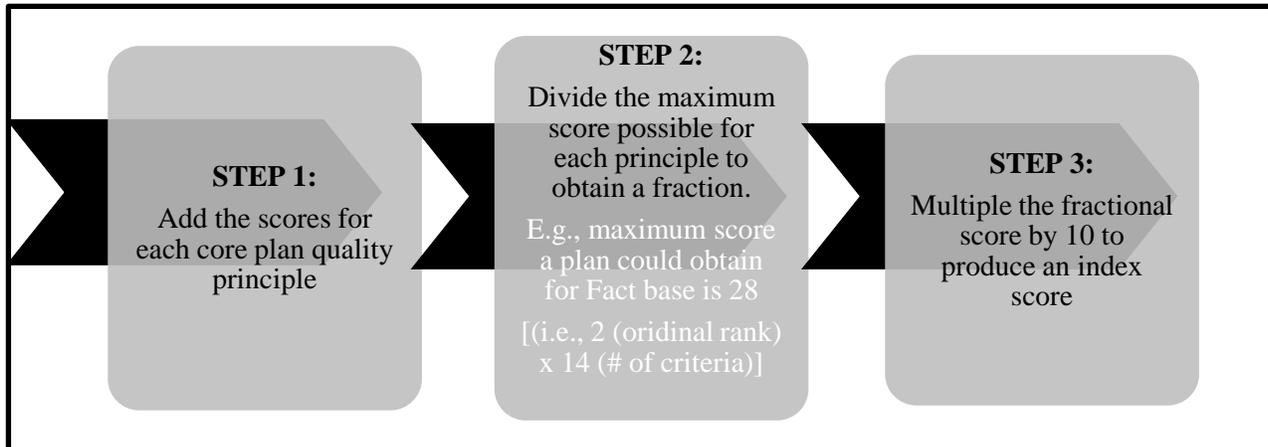
4.6.1 Computing the Scores for the Content Analysis Using the TCCPQ Framework

Using the ordinal scoring scheme, an index score was computed which comprised three steps (Figure 4-6). This index score was based on the convention used in previous plan quality studies (see Berke & Godschalk, 2009; Horney et al., 2017; Stevens, 2013; Tang et al., 2010). The index score enabled cross-comparison among the core plan quality principles since they varied in their number of criteria, ranging from a low of two (interorganizational coordination) to a high of fourteen (fact base) (see Appendix 4-1). For each core plan quality principle, the scores obtained from the respective plan criteria were added. This was then divided by the maximum score possible for each core plan quality principle to obtain a fraction. The fractional score was multiplied by 10, to produce an index score of 0-10. For example, the maximum score that a plan could obtain for its fact base was 28, since there

were 14 criteria (i.e., 2 x 14). Therefore, each plan was scored out of 28 for its fact base and then the figure obtained was multiplied by 10.

Figure 4-6

Steps in Computing the Index Score Using the TCCPQ Framework



4.7 Chapter Summary and Concluding Remarks

This Chapter has focused on plans, a key output of the planning process. It was established that plans should be of the highest quality to achieve the communal visions of society and ought to be responsive to the contextual issues which gave rise to their production. Accordingly, there is consensus among scholars regarding core principles of plan quality and from which plans should reflect these desirable standards. From a normative planning perspective, it can be deduced that a high-quality climate change plan should incorporate available scientific information and knowledge of key interest groups who are closely aligned to policies and programs that are developed to enhance the resilience of the jurisdiction for which it covers (Baer, 1997; Berke & Godschalk, 2009; Horney et al., 2017).

While the production of high-quality climate change plans may present certain challenges for Caribbean-SIDS and other developing nations that are vulnerable to climate

change and are resource-challenged, a climate plan quality evaluation can provide a framework for strategic action to guide policy and decision-makers.

The findings of the evaluation can be used as a fact base to inform and educate key stakeholders of potential risks, and to explain the rationale for proposed climate actions. This can aid to support decision-making in climate planning and policy development and build consensus. With a climate plan quality evaluation, potential opportunities can be identified and exploited to achieve positive outcomes as policy guidance can be tracked with the aim of reducing vulnerability. In this way, plan evaluation permits adaptive management to determine the most effective, efficient, and equitable outcomes for climate planning in the region as well as learning opportunities. The Chapter has also explained the TCCPQ analytical framework that I developed, which was complemented by a graphical illustration. Chapter Five presents the findings of the assessment of the plans using the TCCPQ framework.

Chapter Five

5 Results and Discussion of the Content Analysis of the Region's Tourism Plans

This Chapter presents the findings of the content analysis of thirteen of the Caribbean-SIDS region's national tourism plans using the TCCPQ analytical framework that I developed. It provides descriptive statistics and lays the foundation for Chapter Six which provides a more comprehensive discussion of how climate change is integrated in tourism planning and plan making practices in the region. The information contained in Chapter Five provides responses for one of the study's research questions: *What is the quality of the tourism plans in the Caribbean-SIDS region in addressing climate change?* The Chapter concludes with a summary of the key findings.

5.1 Overview of the Tourism Plans in Caribbean-SIDS

All the plans reviewed were sector-focused in scope (Table 5-1). Eight (62%) plans were entitled master tourism plans. Apart from Aruba's and Curaçao's plans which were void of maps and diagrams, and Barbados's and Curaçao's which were medium term (4-9 years), the other tourism master plans reflected the common traits of this form of tourism plan.

Table 5-1*List of National Tourism Plans in Caribbean-SIDS Reviewed*

Country	Tourism Plan Title	Type	Time Span
Anguilla	Anguilla Sustainable Tourism Master Plan 2010-2020	Master	Long-term
Aruba	Sustainable Tourism Aruba 2025 Draft Master Plan	Master	Long-term
Barbados	Barbados Tourism Master Plan: Report 1	Master	Medium-term
Belize	National Sustainable Master Plan for Belize 2030	Master	Long-term
Bermuda	Bermuda National Tourism Plan	Strategic	Medium-term
Bonaire	Tourism: Synergising People and Nature for a Better Tomorrow: The Caribbean's First Blue Destination	Strategic	Long-term
Cayman	Cayman Islands National Tourism Plan	Strategic	Medium-term
Curaçao	Curaçao: Building on the Power of the Past Tourism Master Plan	Master	Medium-term
Dominica	Commonwealth of Dominica Tourism and Master Plan 2012-2022	Master	Long-term
Guyana	Living Guyana Tourism Strategic Action Plan: 2018-2025	Strategic	Medium-term
Jamaica	Master Plan for Sustainable Tourism Development	Master	Long-term
Montserrat	Montserrat Tourism Master Plan (2000-2010)	Master	Long-term
Sint Eustatius	Tourism Vision Plan for Sustainable Tourism development on Sint Eustatius	Strategic	Undetermined

5.1.1 Plan Authors

Ten (77%) plans were prepared by external tourism and environmental consultants. The Dick Pope Institute for Tourism Studies at the University of Central Florida, and Halcrow and CHL Consulting authored two plans each. These consultants did not adequately address the implications of climate change in the plans they authored. My findings suggest that private consultants' involvement can affect the persuasive and communicative qualities of plans, as these persons have experience and expertise in the plan making process. I also found that consultants working in this area sometimes followed a "cookie cutter"

approach to plan design and structure (Loh & Norton, 2015). For example, Anguilla's and Dominica's tourism plans were authored by the same consultants and were similar in format and structure. Scholars claim that plans produced by external consultants are of higher quality than those produced internally (Bunnell & Jepson, 2011; Loh & Norton, 2015; Rydningen & Salbu, 2019). However, I found that this was not the case; only one of the internally produced plans received a lower score (1.3) – (i.e., Bermuda) than the overall average of the plans (3.7).

5.1.2 Publication Year of Plans

Average publication year of the region's tourism plans was 2015. Cayman's tourism plan was the most recent (2020) while Jamaica's was the most dated (2002). Scholars assert that more recent plans are of a higher quality as they incorporate lessons learned from prior planning experiences and processes (Schrock et al., 2015; Woodruff & Stults, 2016). Accordingly, it was assumed that newer tourism plans would be of a higher quality in terms of their coverage of climate change since there is more awareness of climate change and an increase in climate change-tourism scholarship (Becken, 2013; Fang et al., 2018; Nickerson et al., 2011). However, I found that there was no significant difference in the quality of the plans' climate change coverage and their publication date. Indeed, some of the newer plans (e.g., Bermuda) received lower scores than older plans (e.g., Belize) (Table 5-2).

Table 5-2*Quality of the Region's Tourism Plans and their Year of Publication*

Country	Mean Plan Quality Score	Publication Year of the Tourism Plan
Cayman Islands	5.6	2020
Belize	5.3	2011
Barbados	4.3	2014
Aruba	4.2	2009
Jamaica	4.0	2002
Bonaire	3.8	2017
Guyana	3.7	2019
Anguilla	3.5	2011
Dominica	3.5	2013
Montserrat	3.2	2016
Sint Eustatius	3.0	2019
Curaçao	2.1	2015
Bermuda	1.1	2019

5.1.3 Plan Period

The average plan period (i.e., horizon) was ten years, which is aligned with global practices. Given the dynamic nature of the region's tourism sector and its vulnerability to external shocks, the plan period may need to be reduced or provisions made for periodic plan updates and revision. Aruba's and Belize's plans did not indicate a plan period but an expiry year. No plan period or expiry date was provided for Sint Eustatius's plan. Three (23%) plans have expired (Anguilla, Jamaica, and Montserrat), which presents an opportunity for future plan authors to enhance the coverage of climate change responses in these plans.

5.1.4 Plan Versions

Stevens & Senbel's (2017) longitudinal study of 39 municipal plans in British Columbia, Canada concluded that revised plans did not improve much on their quality of climate change coverage when compared with their previous versions. While my research is a cross-sectional study of the region's tourism plans, I was able to obtain a draft version of the tourism plans for Cayman and Guyana as these were publicly available.

A comparison of the draft and final document of these plans revealed that their contents have been greatly enhanced. For example, the 2018 draft tourism plan for Cayman Islands had limited coverage of climate change, as the term appeared in the document only twice. Although the final plan kept the original format, the coverage of climate change was broadened, and this resulted in an increase in the number of citations of the term from two to thirty-seven times as well as the overall quality of the plan.

A series of public consultations were held before the draft version of Cayman's plan was approved and finalized which determined its climate change coverage. The consultation also involved members of the Cabinet and the opposition party members as well as an online survey. Guyana's draft tourism plan did not mention climate change, however, the final plan referred to climate change twice. No additional insight could be obtained to determine whether public participation, input from technocrats or other factors influenced the increase in climate change coverage of Guyana's tourism plan.

5.1.5 Plan Focus

The term "sustainable" was included in the title of five (38%) of the plans, hence the frequent reference to sustainable tenets throughout these plans. While the other plans did not include the term sustainable in their title, their contents reflected several sustainable

principles derived from the traditional three pillars of sustainability (economic, social, and environmental). The prominence of sustainable principles in the plans may have been influenced by the UNWTO's drive in promoting sustainable tourism and its sustainable tourism publication (see UNWTO, 2013). I found however, that while the plans referred to sustainability, they focused more on the economic rather than the social and environmental aspects of sustainability.

5.1.6 Plan Vision

The literature recommends the involvement of a wide range of stakeholders in drafting the vision statement of a plan (Buultjens et al., 2012; Edgell et al., 2018; Pröbstl-Haider, 2017). Eight (85%) plans noted that the vision statements were developed from feedback received from a wide cross section of stakeholders during the various stages of the plan making process. In formulating the region's tourism vision statements, five (38%) plans disclosed that stakeholders were asked the following questions: "Where do we want to be?" and "Where are we now?" The visioning process in some nations in the region facilitated the formulation of the goals, objectives, strategic actions, and targets for these nation's tourism sector.

I developed a word cloud of the vision statements of the plans, to provide an indication of the common themes and priority areas (Ng et al., 2017). Among the most used terms in the vision statements were: (a) tourism, (b) sustainable, (c) balanced (d) destination, (e) friendly, (f) people, (g) natural, (h) island, and (j) better (see Figure 5-1).

Table 5-3*Sample of Vision Statements in the Region's Tourism Plans*

Country	Vision Statement	Comments
<i>Good Vision Statements in the Region's Tourism Plans</i>		
Barbados	“By 2021, the vision is that Barbados will have become a sustainable, competitive, world-class destination with all-year-round tourism, picturesque landscapes, beautiful beaches, pristine waters and protected biodiversity. It will have preserved its heritage, cherished its traditions and proudly showcased them to the world, thus, successfully differentiating its product from the competition. The Barbados Brand will reflect the spirit of the Barbadian people and the memorable and unique experiences they deliver. Barbados would have earned its designation as being an “aspirational” destination, through the alignment of its price point with the high quality of products and services available on the island and lived up to its reputation of being a friendly, safe and clean destination” p.9.	<ul style="list-style-type: none"> • Very lengthy but comprehensive • Reference is made to the economic, social, and environmental aspects of tourism • Timeline provided for the fulfilment of the vision • Tourism planning jurisdiction is identified
Belize	“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 an exotic natural environment can be actively experienced within a conserved world” p.7.	<ul style="list-style-type: none"> • Clear vision • Focus on multiculturalism, sustainability, inclusiveness, and conservativeness
<i>Vague Vision Statements in the Region's Tourism Plans</i>		
Curaçao	“To make the island the most desirable destination within the Caribbean” p.79.	<ul style="list-style-type: none"> • Too generic and lacks specific details • Could be applied to any Caribbean-SIDS
Guyana	“To be recognized internationally, by the year 2025, as a leading sustainable tourism destination” p.2.	<ul style="list-style-type: none"> • While sustainable tourism is emphasized, the vision is too generic and could be applied anywhere

5.1.7 Plan Concept

The plans were mixed in expressing their overall concept. Anguilla's, Dominica's, and Montserrat's plans presented alternative forecasts which provided three growth scenarios - low, medium, and high. The inclusion of different alternatives in a plan is important for stakeholders to understand how decisions were made (Bunnell & Jepson, 2011). Some of the plans (e.g., Anguilla, Dominica, and Montserrat) proposed the establishment of tourism development areas (TDA) which would facilitate integrated planning in the sector. Other plans (e.g., Barbados and Belize) explored the option of developing tourism centres or poles of attraction whereby tourism facilities and services would be concentrated, making it easier for greater public and private investments in these centres.

5.1.8 Integration of Climate Change in the Region's Tourism Plans

Eight (62%) plans mentioned the term "climate change." However, these plans possessed varying degrees of climate change integration as also noted in the study by Baynham and Stevens (2014) which focused on climate change in municipal official community plans in British Columbia, Canada. The average word count rate of climate change in the region's tourism plans was less than 0.01%, which indicates minimal coverage. Cayman's plan contained the most references to the term. It had a word count climate change rate of 0.18 which is regarded as solid (see Becken et al., 2020). The remaining seven (54%) plans that referred to climate change had less than ten citations of the term and were general in their articulation of the issue. Although the coverage of climate change in the region's tourism plan is minimal, this deficiency exists in tourism documents in general (Becken et al., 2020; Santos-Lacueva & Velasco González, 2018). The limited climate change coverage

in the plans impacted on their materiality and alignment of the treatment of the issue, and the respective national policy position on adaptation and mitigation.

Sustainable tourism and climate change responses have close connections (Ruhanen et al., 2019; Scott, 2011). While the region's tourism plans were not explicit in their articulation of climate change, many of them included several sustainable environmental actions and strategies which can produce some of the desired responses for climate change. This was therefore taken into consideration in assessing the quality of the plans.

5.2 The Quality of the Region's Tourism Plans

The plans were assessed with regard to eight core plan quality principles and corresponding fifty-six criteria that comprised the TCCPQ protocol (as explained in Chapter Four). Therefore, a plan that received an index score of 8.0 and above is of a high quality and is considered as strong, a plan that received an index score of 6.0 - 7.9 is fair, while a plan that received an index score less than 6.0 is regarded as low quality and therefore weak.

I found that the quality of the region's tourism plans in the context of climate change was low, as the mean score was 3.7 out of a maximum of 10 (Table 5-4). The scores ranged from a high of 5.6 to a low of 1.3 (Figure 5-2). Plans scored highest in terms of plan organization and presentation with a mean score of 6.4. However, this was for general plan quality and not explicitly related to climate change. Plans were found to be extremely weak in their expression of fact base (1.6), goals (1.9) and implementation (2.8) particularly for climate change (see Appendix 5-1). Other areas in which the plans were weak included monitoring and evaluation, interorganizational coordination, policies, and participation. The results of the evaluation are further discussed and corroborated some of the findings from previous plan quality studies.

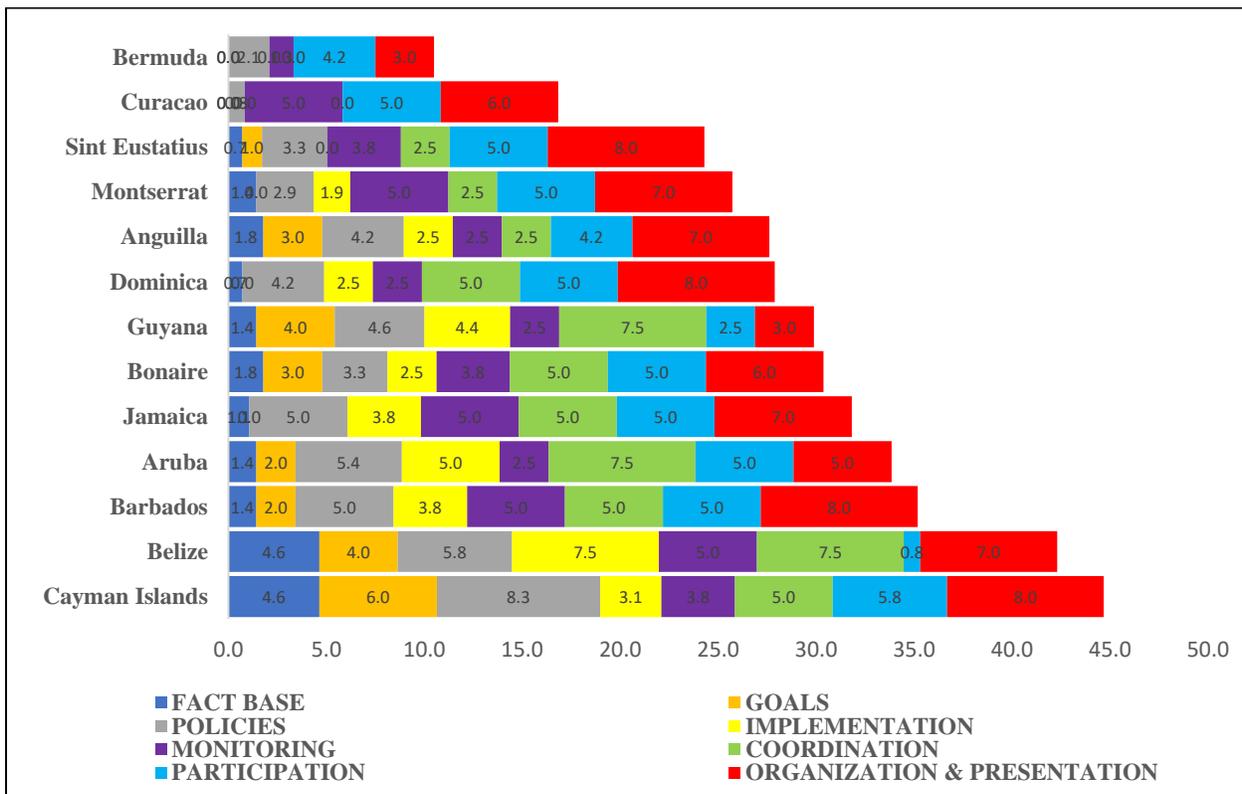
Table 5-4

Plan Quality Scores for The Region's Tourism Plans (N =13)

Core Plan Quality Principles	Mean	Standard Deviation	Minimum	Maximum
Plan Organization and Presentation	6.4	1.8	3.0	8.0
Participation	4.4	1.4	0.8	5.8
Policies	4.2	1.9	0.8	8.3
Interorganizational Coordination	4.2	2.6	0.0	7.5
Monitoring and Evaluation	3.7	1.3	1.3	5.0
Implementation	2.8	2.2	0.0	7.5
Goals	1.9	2.0	0.0	6.0
Fact Base	1.6	1.5	0.0	4.6
<i>Mean Score</i>	<i>3.7</i>			

Figure 5-2

Plan Quality Principle by Sample of Countries Included in the Research



5.2.1 Fact Base

The fact base provides the rationale for policies and actions included in plans (Guyadeen et al., 2019). National tourism performance indicators including tourist arrivals, employment statistics, and contribution of the sector to GDP provided the foundation fact base for the region's plans. This was not surprising since tourism plans in general are economic in focus (Hsu & Gartner, 2012). Therefore, the plans were weak in articulating their climate change fact base, and so they received a mean score of 1.6 with a standard deviation of 1.5 (see Appendix 5-1). The weak fact base of the plans impeded rigorous analysis of climate change issues and the formulation of concrete climate actions and policies in the plans. Comparable results were obtained for the fact base of community climate plans (Baynham & Stevens, 2014) and municipal climate action plans in Canada (Guyadeen et al., 2019).

Among the reasons for the low fact base score were that only four (31%) plans contained a reference list, and these in general contained economic sources. Although the omission of a reference list was not unique to the region's tourism plans (see Mitchell & Ashley, 2010), it affected how knowledge and information was derived and presented (Rydningen & Salbu, 2019). The literature review demonstrated that there has been significant growth in the tourism-climate change scholarship. There were important sources of information that were available at the time of some of the plans' publication that were not referred to in the plans (Table 5-5). These sources could have aided in strengthening the plan's climate change fact base.

The lack of reference to these publications and sources suggests that there is a disconnect between practitioners and academics in tourism planning. It also reflects that there

is inadequate engagement between tourism and climate change agencies (Tam, 2019) and limited capacity to address climate change issues in the region’s tourism sector (Becken et al., 2020; Tam, 2019). Scholars will therefore need to produce climate change fact base information in the region’s tourism sector that is understandable and easily accessible by key stakeholders. Alternately, the omission of relevant climate change information may be purposeful. For instance, the plans’ authors may be climate change skeptics or climate change was not explicitly stated in the Terms of Reference (TOR) for the plans’ development.

Table 5-5

Sources of Climate Change Fact Base Information for the Region’s Plans

Scale	Examples of Relevant Climate Change Fact Base Sources
Global	Sustainable Tourism Development Guidebook (UNWTO, 2013) Climate Change and Tourism – Responding to Global Challenges (UNWTO & UNEP, 2008)
Regional	Caribbean Sustainable Tourism Policy Framework (CTO and EU, 2008) The vulnerability of Caribbean Coastal Tourism to Scenarios of Climate Change Related Sea Level Rise (Scott et al., 2012) The Implications of Climate Change Mitigation Policy and Oil Price Volatility for Tourism Arrivals to the Caribbean (Pentelow & Scott, 2011) The Future of Caribbean Tourism: Competition and Climate Change Implications (Mackay & Spencer, 2017) Quantification and Magnitude of Losses and Damages Resulting from the Impacts of Climate Change: Modelling the Transformational Impacts and Costs of Sea Level Rise in the Caribbean (Key Points and Summary for Policy Makers Document) (Simpson et al., 2010)
National	Nationally Determined Contribution Submission to UNFCCC (UNFCCC, 2020b) Climate Change Policies Environmental Policies Energy Policies Subsector Policies that Cover Climate Change

5.2.1.1 Framing of Climate Change as a Sector Issue and its Impacts in the Plans

Only Bonaire's plan acknowledged that climate change was partially anthropogenic. Eight (62%) plans mentioned climate change as a sector issue. Albeit, the framing of climate change as a sector issue in these plans were generic. For example, climate change was only listed as a threat in St. Eustatius's tourism plan with no discussion of the issue. The generic framing of climate change was also noted in the study on local adaptation plans in Queensland, Australia (see Baker et al. 2012).

Four (31%) plans identified any climate change impacts and implications. Of these, none mentioned the full set of six climate change impacts that the CTO outlined in its Sustainable Tourism Policy Framework (CTO & EU, 2008) (Table 5-6). Some of the nations whose plans were reviewed have developed national climate change policies and have submitted their NDCs to the UNFCCC (e.g. Barbados, Belize, Dominica etc.) which demonstrates their national commitment to, and progress on, climate action planning (see UNFCCC, 2020b). It was expected that the plans would have incorporated this information, as seven (53%) of the plans were published within the last five years. Apart from the plans not engaging with the climate change science information available, it was apparent that they did not reflect the region's chief tourism organization's position on climate change. The findings suggest that the region's tourism plans still do not adequately address the challenges presented by climate change to the nations generally, and to their tourism sectors specifically.

Table 5-6*List of Climate Change Impacts and Implications Identified in the Plans*

Climate Change Impacts Listed in CTO's Sustainable Tourism Policy Framework	Anguilla	Aruba	Belize	Cayman Islands
Greater hurricane intensity and possibly frequency, which would result in damage or loss of infrastructure, increased insurance costs or even lost insurability, business disruption and evacuation costs, as well as a negative image of the region as a safe destination;	-	√	√	√
Sea level rise, which would increase the vulnerability of tourism facilities in coastal areas (beaches, yachting marinas and cruise ship piers, a large percentage of accommodations, heritage attractions);	√	√	√	√
Saltwater intrusion into freshwater aquifers, with the Bahamas being identified as the world's most vulnerable nation to sea level rise by percentage of land area lost;	-	-	√	-
Temperature changes, resulting in warmer winters in northern markets and warmer summers in the region, affecting seasonal demand;	-	-	-	-
Changing precipitation patterns, leading to reduced water supply and the potential for drought;	-	√	-	√
Increased sea surface temperatures causing coral reef bleaching and mortality	√	-	√	√

Notes: The climate change impacts listed in the table were taken from the Caribbean Sustainable Policy Framework document p. 36)

5.2.1.2 Legislative Context for Climate Change Actions in the Plans

No reference was made to the WTTC's or the UNWTO's climate change action goals, the Caribbean Sustainable Tourism Policy Framework, or NDC targets in the plans. Four (31%) plans mentioned a national legislation or strategy such as an Environmental Act (Barbados), Green State Development Strategy (Guyana), Blue State Economy (Bonaire) or a Manual for Environmental Conscious Hotel Operations (Jamaica) which have some relevance to climate change. While these few plans referred to climate change related strategies, such as low-carbon resilient development, decarbonizing the economy,

transitioning to resource efficient economies, and creating green jobs, they lacked specific information on how these strategies would be incorporated in the tourism sector. Only Cayman’s plan referred to its National Climate Change Policy, but the actions contained in this policy were aspirational in nature as the policy did not state how the actions will be achieved (Box 5-1). Chapter Eight (see section 8.6) provides a conceptual framework of the possible legislative/policy and institutional arrangements that the region’s tourism plans could incorporate to improve climate change responses.

Box 5-1

An Excerpt of Cayman’s Tourism Plan on the National Climate Change Policy

For the tourism sector, the Policy states the following:

Climate change will likely cause considerable impacts on the Cayman Islands’ tourism sector, through:

- Increased risk to tourism facilities from sea level rise, stronger hurricanes, storm surges and flooding;
- Impact on tourism product from more extensive coastal erosion (e.g. degraded beach amenities), increased damage to local attractions, and more frequent coral bleaching events.

In order to create a more environmentally responsible tourism industry and preserve the quality of natural, historical and cultural attractions, while enhancing the resilience of tourism infrastructure and facilities to climate change impacts, the Government of the Cayman Islands will:

Legislation and Policy Actions

- Amend the Tourism legislation to ensure that applications for new tourism development are submitted to the Department of Tourism, Department of Environment and other relevant agencies for review and a climate change risk assessment, and
- Implement “no regrets” measures.

Source: Cayman Islands National Tourism Plan p.25

None of the plans indicated that they were developed based on any mandate to address the implications of climate change on tourism, so it could not be determined if mandates had an impact on the quality of the plans as suggested by some scholars (see Baynham & Stevens, 2014; Bunnell & Jepson, 2011; Tang et al., 2010). With the absence of any mandate

governing tourism planning in the region, there was no specific requirement regarding the contents of tourism plans. Four (31%) plans noted that their contents were guided by the terms of reference (TOR) provided to the consultants. The level of influence that the TOR had on the contents of these plans could not be determined since only Barbados's plan included a copy of the TOR. Additional probing revealed that climate change was not a deliverable in the TOR for Barbados's plan.

5.2.1.3 Land Use

Like plans in general, a quality climate change-tourism plan should include reference to land use supply and demand, and should identify specific tourism development sites to address climate change (Berke & Godschalk, 2009). Many of the region's tourism plans acknowledged the current state of tourism land use and supply and noted that the projected growth in tourism will place added pressure. Despite this acknowledgement, only six (46%) plans identified specific sites to accommodate future tourism demand. In such instances, these plans provided maps to supplement the narrative. There was no indication in the plans that future tourism land use and supply studies will be carried out with specific reference to climate change.

5.2.1.4 Vulnerability Assessment

Good quality climate action plans should include a vulnerability assessment of climate change impacts to identify certain demographic populations, areas, and sectors that will be disproportionately affected as well as provide some vulnerability indicators (Baker et al., 2012; Baynham & Stevens, 2014; Guyadeen et al., 2019; Tang et al., 2010). Five (38%) plans indicated that a vulnerability assessment was conducted.

However, these five plans were not rigorous in their analysis and assessment. Specific details on key vulnerability indicators and how these will affect the vulnerability of the tourism sector such as access to resources, human and institutional capacity issues, and the resilience of tourism infrastructure to projected climate change impacts were absent in the plans. Cayman's plan mentioned a 2010 study that assessed three climate change scenarios and the potential losses. The Cayman study disclosed that under a high climate change scenario, the losses could be as high as 7% of GDP by 2030 where storm surge-induced flooding would account for 45% of damages. My findings were similar to the findings produced by a study of climate adaptation plans in Australia, United Kingdom, and the United States of America, which found that plans lacked rigorous assessment of vulnerability risks (see Preston et al., 2011).

The absence of vulnerability assessments in some plans could be explained because in practice, tourism's performance is based on its positive images and so any negative or vulnerable portrayal of the sector is often avoided. Additionally, key tourism stakeholders may not want to divulge their strategic approach to reducing risk to their competitors (Scott, 2011). However, there are studies which cover the vulnerability of the region's tourism sector (see Scott et al., 2019; Scott & Verkoeyen, 2018). These studies could have been used to inform the tourism plans to identify priority areas and where to direct limited resources.

5.2.2 Goals

Broad and specific goals relating to climate change adaptation or reducing vulnerability should be included in a good quality climate change plan (Baynham & Stevens, 2014; Berke et al., 2012). At least one goal should be included that is aimed at reducing emission in the sector with long and short-term targets (Baynham & Stevens, 2014; Guyadeen et al., 2019).

Goals on climate change were weak overall in the region's tourism plans. The plans received a mean score of 1.9 for their goals (see Appendix 5-1), like the scores obtained in other plan quality studies on Australia (Baker et al., 2012) and the USA (Woodruff & Stults, 2016) in the climate change domain. In general, the region's plans failed to incorporate key attributes of a goal, which are universally recognized as specific, measurable, achievable/action oriented, realistic, and time based (SMART) (Seasons, 2021; Vision, 2020). While St. Eustatius's and Guyana's tourism plans acknowledged the need to develop SMART goals, their goals were weak. The weak climate change goals in the region's tourism plans contributed to the lack of clarity on policy formulation, which can make it difficult to monitor progress (Stevens, 2013).

5.2.2.1 Adaptation Goals in the Plans

Goals specific to climate change adaptation were found in three (23%) plans. These were vaguely expressed, aspirational, and were generally not linked to any specific climate change risks, which was also noted in a similar study (Baker et al., 2012). For example, Table 5-7 is an excerpt from Guyana's tourism plan which outlines the goal, objective, and specific actions. Based on my comments in the table, it was apparent that the fundamentals of mitigation and adaptation were not clearly understood in the plan.

Table 5-7

An Excerpt from Guyana’s Tourism Plan Outlining a Strategic Goal

Strategic Goal 1: Optimize Nationwide Socio-Economic and Conservation Outcomes from Tourism	Comments
<p>1.1 Increase Alignment and Strengthen the Enabling Environment for Tourism</p> <p>1.1.9 Support Climate Adaptation and Mitigation measures in the Tourism Sector</p> <ul style="list-style-type: none"> • Promote energy efficiency, renewable energy and sustainable policy and management initiatives in the tourism sector in collaboration with CARICOM, Guyana Energy Agency, the Office of Climate Change, and the Department of Energy. • Advocate for and foster innovative energy efficient and renewable energy investments and self-financing mechanisms. • Secure buy-in for renewable energy and energy efficiency within the accommodations sector. Work with CARICOM to secure buy-in and support from GPL, Department of Energy, Department of Environment, and Guyana Energy Agency to empower sustainable energy production and use through the tourism value chain and implement a pilot program in one municipality, one protected area and two receptive indigenous communities. • Reduce demand for fossil fuels for transport and for electricity generation from the tourism industry to generate substantive foreign exchange savings in fuel investments. 	<ul style="list-style-type: none"> • Very generic. • Use of non-measurable terms to express goals and objective e.g., “support,” “optimize,” “secure,” “promote.” • These are mitigation oriented.
<i>Key Measures</i>	
<ul style="list-style-type: none"> • The level of inter-departmental ministerial collaboration and number of multi-stakeholder partnerships increases • Visitor arrivals increase an average of at least 8% annually over the next eight years and there is a marked increase in lodging demand over the same timeframe, resulting in attracting 500,000 visitors by 2025 • Hinterland visitor arrivals from overseas increase from 10% in 2018 to 20% from 2019 (currently 90% coastal) • There is an average annual 20% increase in leisure and business visitation and a measurable year-on-year increase in visitor spend • A baseline for national and regional destination management and development needs is fully established and maintained • At a global level, Guyana is recognized annually as a leading sustainable destination 	<ul style="list-style-type: none"> • This is the only measure that is adaptation related. • The measures focus on increasing visitor arrivals and do not provide any specific indication on how support for climate change adaptation and mitigation could be measured. • The climate change risk that is being targeted is not identified.

Source: Living Guyana Tourism Strategic Action Plan pp. 3-5, 15

5.2.2.2 Sector Emission Goals in the Plans

National tourism emissions inventories (NTEI) are the foundation for effective mitigation goals and policies (Li & Song, 2016; Stevens & Senbel, 2017; Ya-Yen et al., 2019; Yona et al., 2020). Only Belize's tourism plan mentioned a national emission inventory that was conducted in 2006, but the contribution of its tourism sector's emission is unknown. None of the plans provided any evidence that an emissions forecast has been or will be conducted for its respective tourism sector, or did the plans outline what were the climate change drivers within the sector as suggested by scholars (Baynham & Stevens, 2014). A national tourism emissions inventory was done for fourteen of the nations within the study area (see Gössling, 2013), and so this study could have been utilized to inform the drafting of goals on mitigation within the plans. Also, the Caribbean Community Climate Change Centre's (CCCCC) website has a web-based Carbon Footprinting Tool which can calculate tourism sector emissions.

Goals that targeted the reduction of emissions in the sector were found only in Belize's and Cayman's tourism plans, but no base year for GHG emissions reduction was noted (Table 5-8). The absence of long and short-term goals for GHG emissions with a base year in climate action plans is not uncommon. One of the principal reasons for this absence is that emission reduction projection is highly technical to conduct and requires huge financial investments (Baynham & Stevens, 2014).

Table 5-8*Examples of Emission Goals in the Region’s Tourism Plans*

Country	Goals	Comments
Belize	“To reduce the national carbon emission and research on supplementary revenue possibilities from the generation and sale of bioenergy to assure the principle of the 3Rs (Reduce, Reuse, Recycle)” p.6	Very generic, does not state how reduction will be achieved No base year mentioned No quantitative measure for reduction noted
Cayman Islands	“Reduce Greenhouse Gas Emissions, in line with agreed national targets, through promoting energy conservation, reducing energy use and encouraging greater use of renewable energy” (p.25) “Develop scheme for tourists to offset greenhouse gas emissions” (p26)	Very generic, does not state how reduction will be achieved No base year mentioned No quantitative measure for reduction noted Included the participation of tourists (main stakeholders) Linked to national targets

5.2.3 Policies

The policy context determines how institutions frame their responses for climate change actions (Baker et al., 2012). Therefore, policies on climate change from various levels and sectors can influence the response of the region’s tourism sector. Although the plans received a higher mean score (4.2) for their policies than their goals (1.9) (see Appendix 5-1), the score was still low, and coincided with the findings of other plan quality studies on municipal climate change and hazard mitigation plans in North America (see Guyadeen et al., 2019; Horney et al., 2017).

5.2.3.1 Policy Language

Plans that use mandatory language such as “shall,” “will,” “require,” or “must” are of a higher quality and exert greater control over the planning agenda than those that utilize

suggestive or motivational policy language such as “like,” “consider,” “support,” “encourage,” “should,” or “may” (Baynham & Stevens, 2014; Stevens, 2013). The extent to which policy language in the region’s tourism plans impacted on the achievement of the stated goals due to the nature of the study could not be determined. However, future studies could examine this subject.

Nine (69%) of the region’s plans used mostly motivational language. Box 5-2 provides an excerpt of Anguilla’s and Cayman Islands’ tourism plan which demonstrates differences in the policy language used. The frequency of motivational policy language used in the region’s plans suggests that these policies play advisory roles rather than being mechanisms to achieve the desired results for tourism generally, and climate change responses.

Box 5-2

Differences in Policy Language in the Plans

ANGUILLA

The emerging and developing principles of ‘energy conservation’, **SHOULD** be incorporated in all new developments p. 177.

CAYMAN ISLANDS

In order to create a more environmentally responsible tourism industry and preserve the quality of natural, historical and cultural attractions, while enhancing the resilience of tourism infrastructure. and facilities to climate change impacts, the Government of the Cayman Islands **WILL**:

Legislation and Policy Actions

- Amend the Tourism legislation to ensure that applications for new tourism development are submitted to the Department of Tourism, Department of Environment and other relevant agencies for review and a climate change risk assessment and implement “no regrets” measures p. 25.

5.2.3.2 Communication Policies

Communication policies in climate action plans can foster greater commitment to the plan making process, encourage greater mobilization of resources, and increase the utility of plans (Bunnell & Jepson, 2011). Only Belize's plan contained any communication policy actions specific to climate change. This communication policy proposed training and awareness on technology transfer, national communication, and funding. Although Barbados's communication policy was not climate change specific, it proposed the creation of a public environmental hotline to enhance greater communication, increase performance in responding to infractions and encourage the involvement of the public. A similar communication policy could be adopted for climate change related issues in the region's tourism plans.

5.2.3.3 Integrating Sustainable Tourism and Climate Change Policies

Responding to climate change is imperative for the sector in addressing sustainable tourism. This is because climate change is more than an environmental issue; it has social and economic implications for the sustainability of the sector (Scott, 2011). Many of the plans referred to sustainable tourism principles such as greening of the sector, which could result in reducing the potential impacts of climate change. Yet, none of the plans clearly established a link between sustainable tourism and climate change.

5.2.3.4 Policies on Financing

Policies on financing and possible sources of funding were provided in eleven (85%) plans (Table 5-9). However, these policies were broadly stated and were not specific to climate change with the exception of Aruba's plan. Aruba's policy proposed that guests

contribute to a fund to reduce their carbon footprint which would be invested in sustainable projects across the island. No information was provided on how this action would be implemented, or how the fund would be calculated.

No plan outlined any budgetary commitments for climate change activities or mentioned the Adaptation Fund, the Green Climate Funds, or any other climate change funds which their respective nations can access. My findings suggest that climate change financing information is not being filtered down in the sector to inform policy initiatives. Barbados's plan expressed the need for policies and legislation to improve communication on available funding and incentives. Guyana's plan proposed the creation of a donor and development agency's database that would store information on donor agencies' changing funding priorities and interests. A climate change database such as this could be adopted by the various Caribbean-SIDS and expanded to include the timelines for the call for proposals and the amount of potential funds available for access.

Table 5-9*Sources of Financing Identified in the Plans*

Country	Government	Private Sector	UK and EU funds	CBD and other Banks	International Donor	Tourism	Climate Change Funds	Diaspora	NGOs	Investors	Room Taxes/levies/F	Utility Companies
Anguilla	√	√	√	√	√	-	-	-	-	-	-	-
Aruba	√	√	-	-	-	√	√	-	-	-	√	-
Barbados	√	√	-	√	√	√	-	√	√	√	√	-
Belize	√	-	-	-	√	-	-	-	√	-	√	-
Bermuda	-	-	-	-	-	-	-	-	-	-	-	-
Bonaire	√	-	√	√	-	-	-	-	-	-	√	√
Cayman Islands	√	√	-	-	-	-	-	-	-	-	-	-
Curaçao	-	-	-	-	-	-	-	-	-	-	√	-
Dominica	√	√	√	√	√	-	-	-	-	√	-	-
Guyana	-	√	√	√	√	-	-	-	-	-	√	√
Jamaica	√	√	√	-	√	√	-	-	-	-	√	-
Montserrat	-	-	√	-	-	√	-	-	-	-	-	-
Sint Eustatius	-	-	-	-	-	-	-	-	-	-	-	-

5.2.3.5 Hazard Reduction Policies

Five (38%) plans outlined policies related to hazard reduction through the built environment. These plans expressed the need to enhance the resilience of existing critical tourism infrastructure and therefore promoted green tourist buildings. Some plans stated that new constructions will be encouraged to use hazard-prone material. Policies on hazard reduction through land use were present in seven (54%) plans. These plans noted that new tourism development will not be permitted in vulnerable areas. Of these seven, only Cayman's plan made specific reference to climate change. Cayman's policy stated that climate change risks management plans would be required to develop facilities in designated vulnerable areas.

5.2.3.6 Subsector Policy Actions

Subsector policies were scattered throughout the plans with many of them making no specific reference to climate change (Table 5-10). All policies on resource management were found to be generic to sustainability. Although eleven (85%) plans contained policies on energy, four (31%) were climate change specific (Table 5-10). The other seven plans had policies that focused on the use of alternative forms of energy to reduce cost instead of reducing consumption and emission in the sector.

Policies on food security were found in seven (54%) plans. While most of these policies promoted the production of local food production and agri-tourism, only Cayman's plan was climate change specific (Table 5-10). Nine (69%) plans contained policies on transportation which centred on sustainable transport and reducing the demand for fossil fuel transport. No insight was included about how this would be achieved, nor did any plan make any reference to climate change in this regard. In addition, none of the plans stated any policies on carbon taxes for fleet, aviation, or road transportation (electrification).

Waste reduction policies were cited in eight (62%) plans; these were geared towards recycling, waste management programs, and relocating existing waste management sites. One plan had a waste policy targeting climate change. The absence of waste reduction policies in the plans that are climate change specific is concerning, as the region's tourism sector is a driver of waste production particularly from cruise ships, packaging waste and resort construction (UNEP, 2014). Seven (54%) plans included a policy on water conservation and management which targeted rainwater harvesting, water storage and curbing water consumption. Interestingly (and somewhat concerning) water policies specific

to climate change were found only in two (15%) plans (Table 5-10), despite the CTO identifying climate change as a threat to the region’s tourism sector’s water supply.

Table 5-10

Summary of Subsector Policies Included in the Plans

Subsector	No. of Plans with Climate Change Related Policies	No. of Plans with Climate Change Specific Policies	Examples
Resource Management	11	0 (not climate change specific)	Promote green tourism Develop guidelines and management plans to enhance the preservation, presentation, and management of natural assets
Energy	11	4—Belize, Aruba, Guyana, Cayman	Reduce Greenhouse Gas Emissions, in line with agreed national targets, through promoting energy conservation, reducing energy use, and encouraging greater use of renewable energy
Water		2—Cayman, Belize	Promote water conservation and improved rainwater harvesting while reducing impacts from flooding and enhancing the resilience of natural water resources;
Waste	8	1—Belize	...Mechanical Biological Treatments (MBT-green technologies) and Clean Development Mechanism initiatives (CDM – to reduce the national carbon emission) and research on supplementary revenue possibilities from the generation and sale of bio-energy to assure the principle of the 3Rs (Reduce, Reuse, Recycle).
Transportation	9	0 (not climate change specific)	Promote sustainable transportation – electric driving
Food Security	7	1—Cayman	To facilitate the transition to a climate-resilient...strengthen food

Subsector	No. of Plans with Climate Change Related Policies	No. of Plans with Climate Change Specific Policies	Examples
			security by promoting increased use of locally produced food products and appropriate technologies

5.2.4 Implementation

The implementation section of a plan is critical, as it reflects a commitment to follow through on the policy actions contained therein (Baker et al., 2012; Baynham & Stevens, 2014; Fu et al., 2017; Guyadeen et al., 2019; Stevens, 2013). Quality climate action plans should have a section that addresses what is required to implement actions, including priority areas, organizational responsibilities, timelines, and resource allocation (Guyadeen et al., 2019; Horney et al., 2017; Tang et al., 2011).

A higher mean score for policies (4.2) was calculated for the plans overall than for their implementation section (2.8) (see Appendix 5-1). When plans score higher on their policies than their implementation section, they have the propensity to become “paper” documents that are not executed (Berke et al., 2015). It is uncertain whether the visions and goals that are outlined in the region’s tourism plans will be achieved or the extent to which they will be achieved. Low scores for implementation were obtained in other climate change plan quality studies (see Baker et al., 2012; Baynham & Stevens, 2014).

5.2.4.1 Designated Implementation Section in the Plans

Eight (62%) plans contained a designated section for implementation of actions. Most of these plans did not provide any operational implementation details. A few of the plans cited some implementation imperatives including: (a) championing the implementation of the

plan by a senior figure in authority, (b) establishing an implementation steering committee, and (c) determining the sequence of the recommended program of action. Three (23%) plans (Aruba, Belize, and Guyana) included actions on climate change in their implementation section. None of these plans included a ranking of the climate change specific actions. A study on local adaptation plans in the USA also found this deficiency in ranking climate change priorities (see Woodruff & Stults, 2016).

The state, tourism departments, and environmental agencies were identified as organizations responsible for the climate change actions in the plans, since many of these nations do not have a designated climate change agency. None of the plans mentioned the CCCCC which is the region's principal organization for the coordination of all climate change efforts.

No timelines were provided for climate actions in Guyana's plan. The absence of timelines reflects the lack of commitment in bringing the goals to fruition. Short-term targets were proposed for climate action in Belize's and Aruba's plan. Only Belize's plan provided a budget for their climate action which was mainly for climate change awareness and training at an estimated cost of US\$4,000,000. Allocation of other resources needed to implement the plans, was not covered in any plan.

The five (39%) plans that did not contain an implementation section may be fulfilling a planning ritual of producing plans, rather than undertaking plan making as a critical output of the planning process. This omission increases the likelihood of the plans not being adopted or shelved (Burby, 2003; Stevens, 2013). I found that the absence of an implementation section in plans was common among the smaller countries (Aruba, Bermuda, Bonaire, Cayman Islands, and St. Eustatius). Resource constraints and capacity issues may have contributed to

the absence of an implementation section in Aruba's and Bermuda's plans as these were internally authored (i.e., by state officials). However, the omission of this information in Bonaire's, Cayman's, and St. Eustatius's plans may be due to other reasons as these were authored by external consultants.

5.2.5 Monitoring and Evaluation

Scholars have recognized that the dynamic nature of tourism necessitates that planning and policy making for tourism should be a continuous process, and as such, requires a monitoring system which facilitates periodic review of tourism plans (Lawson & Baud-Bovy, 1977; Pearce, 2000). Monitoring and evaluation are important to ensure the appropriate use of resources and the credibility and relevance of plans (Seasons, 2021). The plans were therefore assessed with regard to whether they contained a separate section on what needs to be done to monitor and evaluate the plan, identified departments for monitoring the plan, presented a timeline for updating and monitoring the plan as well as outlined measurable targets (Baker et al., 2012; Li & Song, 2016; Stevens, 2013). The plans received a mean score of 3.7 with a standard deviation of 1.3 for monitoring and evaluation (see Appendix 5-1). Eleven (85%) plans included a section pertaining to monitoring and evaluation but not in specific reference to climate change.

Eight (62%) plans proposed the establishment of a task force/ steering committee to oversee the review and monitoring of the plans. According to these plans, this committee/task force should comprise representatives from various public ministries, departments, and agencies of government (MDAs) that have responsibility for specific macro programs. Some of these institutions identified in the plans have responsibility for climate change even though the plans did not make this association. Timelines for plan updates were

only mentioned in five (38%) plans. Quantifiable goals and policies were found in nine (69%) plans but these were sustainable focused and not climate change specific. The absence of quantifiable goals and objective linked to climate change risks was also found in the study on local adaptation plans in Queensland, Australia (see Baker et al., 2012). In a few instances, some of the targets and indicators did not match the goals and policies that were included in the region's tourism plans.

5.2.6 Interorganizational Coordination

Policy actions on climate change are complex, multiscale, dynamic, and have broad implications for the tourism sector. Interorganizational coordination is important to ensure that these policies and actions for the tourism sector are consistent and coherent across all levels (Scott & Marzano, 2015). The region's tourism plans were assessed as to whether they identified any horizontal and vertical connections among tourism and climate change stakeholders (Berke et al., 2012; Guyadeen et al., 2019; Horney et al., 2017).

Overall, the plans were found to be weak on coordination, recording a mean score of 4.2 (see Appendix 5-1). Nine (69%) plans identified vertical and horizontal coordination, of which, three (23%) were climate change specific (Table 5-11). Horizontal coordination identified within the plans generally included the tourism ministries, tourism boards/ authorities, and environmental departments/ agencies. Some of the vertical coordination identified were with the (a) Caribbean Community (CARICOM), (b) international donor agencies (Department for International Development (DFID), European Development Fund (EDF) (c) Caribbean Development Bank (CDB)), (d) Caribbean Tourism Organization (CTO), (e) World Travel and Tourism Council (WTTC), and (f) United Nations World Tourism Organization (UNWTO). While the plans identified opportunities for inter-

organizational coordination, they did not specify the roles and responsibilities of personnel for the proposed actions/tasks.

Table 5-11

Examples of Coordination on Climate Change Actions in the Plans

Country	Climate Action/Project in the Plan	Interorganizational Coordination Identified
Aruba	Erase your Carbon Footprint	Aruba Hotel and Tourist Association (AHATA), Aruba Tourism Authority (ATA), Parke Arikok
Belize	Climate Change Awareness and Training	Ministry of Work, Belize Tourism Board (BTB)- Private sector, NGOs, Municipal governments, Ministry of Natural Resources and the Environment, National Sustainable Tourism Trust Fund (NSTTF), Beltraide
Guyana	Energy Efficiency, Renewable Energy and Sustainable Policy and Management Initiatives	CARICOM, Guyana Energy Agency, the Office of Climate Change, the Department of Energy

None of the plans indicated any coordination with the CCCCC. This situation highlights that greater effort is needed on the part of the CCCCC to inform the region’s largest economic sector on climate change issues. Other studies have found that climate action efforts in general are difficult to coordinate (Esty & Moffa, 2012; Li & Song, 2016). This difficulty in coordinating arises because policies are developed in various sectors that sometimes have conflicting priorities, and policy actors may have responsibilities that span various ministries (Schmidt & Fleig, 2018).

5.2.7 Participation

One of the qualities of a good plan is that it can elicit the participation of the public (Bunnell & Jepson, 2011; Horney et al., 2017; Stevens, 2013). Participation can assist in framing climate change issues in the tourism sector from a local perspective to obtain additional “buy in” which can influence implementation (Baker et al., 2012; Guyadeen et al., 2019). Accordingly, planning scholars recommend the use of a variety of participatory approaches that target a wide cross section of stakeholders to obtain meaningful results in the plan making process (Brody et al., 2003; Bunnell & Jepson, 2011; Stevens, 2013).

Plan quality studies across various domains have produced different results for participation. For example, participation is found to be weak in hazard mitigation (Berke et al., 2012; Jacobs, 2014; Lyles et al., 2014) and climate change domains (Guyadeen et al., 2019; Woodruff & Regan, 2019; Woodruff & Stults, 2016). Contrastingly, participation is among the strongest in the transportation (Mansfield & Hartell, 2012) and watershed domains (Spurlock, 2018).

The region’s plans received a score of 4.4 for participation (see Appendix 5-1). Although the region’s plans were more detailed in their discussion of participation than any other plan quality principle, none of them discussed their participation engagement on climate change issues. This was surprising particularly for Cayman’s plan, since it was revealed that participation significantly influenced its coverage of climate change.

5.2.7.1 Stakeholders’ Engagement and Input

In general, the plans provided a detailed discussion on the participation process, with some supplementing the discussions with graphical illustrations (Figure 5-3). All plans acknowledged the public as an integral part of the planning and plan making process. Eleven

(85%) plans noted that input and collaboration were sought from a variety of tourism stakeholders and the wider community and provided a list of stakeholders. Only Barbados’s plan noted the engagement of persons from the Caribbean Tourism Organization (CTO). No plan mentioned that any input was sought from international tourism organizations.

Several methods were used to obtain the input of stakeholders and so, the tourism plan making approach employed in the Caribbean can be described as participatory. Among the commonly cited stakeholder input methods were: (a) visioning, (b) focus group discussions and workshops, (c) interviews, (d) summits, (e) public consultations, (f) Delphi, (g) field missions to hotel properties, and (h) exit surveys for tourists and online public surveys. Three (23%) plans noted the number of participants that were included in the participatory process. These plans did not indicate what percentage of the population this represented which would have provided additional insight on engagement coverage.

Figure 5-3

An Excerpt from Bonaire’s Tourism Plan Illustrating the Participation Process



Source: Bonaire: Tourism Synergising People and Nature for a Better Tomorrow p.5

5.2.8 Plan Organization and Presentation

The plans were assessed on five general plan criteria as suggested by the literature: (a) executive summary, (b) table of contents, (c) glossary of terms, (d) illustration, and (e)

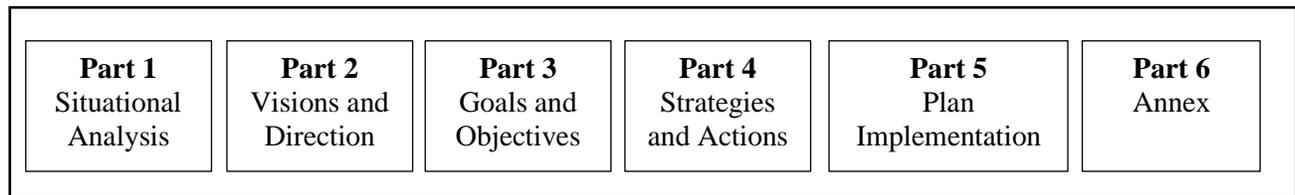
compactness (see Baer, 1997; Baker et al., 2012; Bassett & Shandas, 2010; Bunnell & Jepson, 2011; Guyadeen et al., 2019; Norton, 2008). The communicative qualities of plans are crucial factors in determining whether the plans would be shelved or used in the future by key stakeholders and if used, the extent to which they are used (Rydningen & Salbu, 2019). Generally, the plans were fairly user friendly and attractive, hence they received a mean score of 6.4 for their organization and presentation (see Appendix 5-1). This score though, was for general plan quality and not climate change specifically.

5.2.8.1 Plan Structure and Layout

The information contained in the plans were presented in six main parts (Figure 5-4). All the plans, except for Bermuda's, which used a brochure format, included an executive summary or an introduction. These provided a brief overview of the plans' contents, organization, and main proposals. Belize's executive summary was comprehensive, but lengthy, with 29 pages. Eleven (85%) plans included a table of contents, which were not faulty in their page numbering or cross referencing of illustrations. A glossary of terms was found in seven (54%) plans, which aided in enhancing the clarity of key principles. Four (31%) plans (Anguilla, Dominica, Jamaica, and St. Eustatius) included a glossary of terms as a subheading, yet their contents under this subheading was a list of acronyms used in the plans. There are therefore misinterpretations in the use of certain terminologies in the plans across the region.

Figure 5-4

General Structure of the Region's Tourism Plans

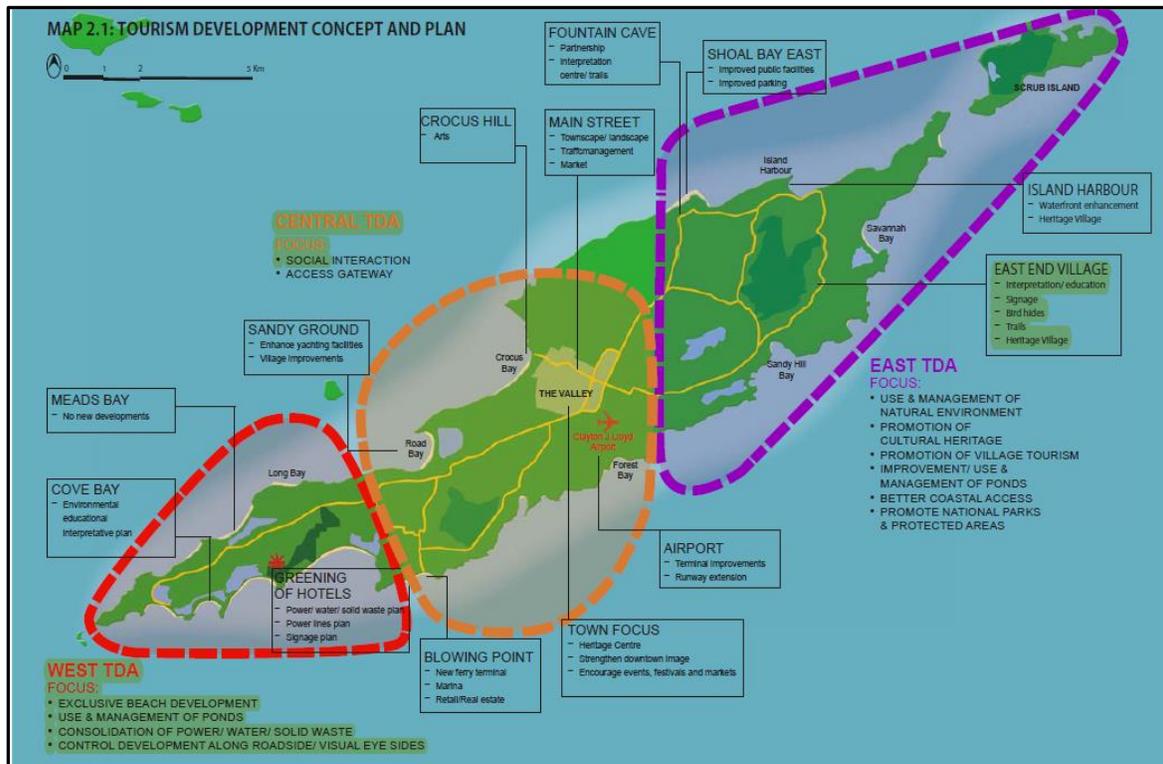


5.2.8.2 Illustrations and Layout

All the plans contained some form of graphical content to support the narrative, with some being more visually interesting than others (e.g., Anguilla, Belize, Dominica, and Montserrat). These tourism plans contained maps that depicted the spatial distribution of tourism facilities and proposed areas for tourism development (Figure 5-5). The illustrations allowed the plans to be viewed as change agents rather than static documents (Bunnell & Jepson, 2011). While Bermuda's plan was "attention grabbing" in terms of its graphical layout, it was more suitable for a marketing plan for tourists. Its format and presentation were unique compared with the other plans, but it lacked guidance on tourism development. Interestingly, the plan noted that its preparation was an election manifesto commitment.

Figure 5-5

An Excerpt of Anguilla's Tourism Plan Illustrating its Tourism Concept



Source: Anguilla Sustainable Master Tourism Plan p.7

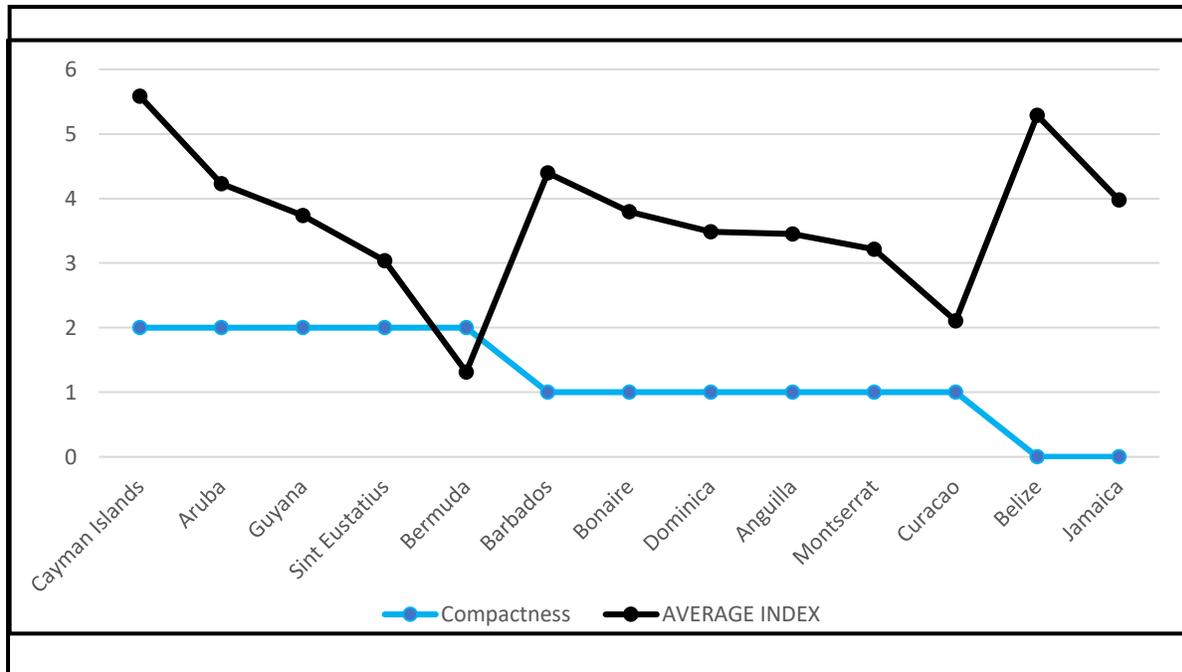
5.2.8.3 Compactness

Seven (54%) of the plans had more than 100 pages. Barbados's tourism plan comprised six separate documents, with each exceeding 100 pages. The production of separate detailed plan documents makes it easier to check that critical components are covered. However, this resulted in the lack of a “unified narrative storyline” among the documents, as it was challenging to understand the overall tourism plan concept. Further, the existence of discrete documents resulted in the duplication of information among each (Bunnell & Jepson, 2011).

While Preston et al. (2011) concluded that brevity among plans provided fewer options and hence scored lower, this was not the case for the region's tourism plans. I found

that there was no significant difference in the overall quality of the plans and their compactness as depicted in Figure 5-6.

Figure 5-6
Plan Quality and Compactness



5.3 Chapter Summary and Concluding Remarks

Prior to this study, the region’s tourism plans have not been assessed using standard plan quality protocols. By conducting this study, my research has been able to fulfill several knowledge gaps in the plan quality literature. First, I have presented a systematic evaluation of thirteen of the publicly available Caribbean-SIDS tourism plans in the context of climate change. In doing this evaluation, I was able to determine the quality of these tourism plans regarding their coverage, scope, and materiality of climate change, and highlight their weaknesses and areas for improvement. Further, I have contributed to the limited scholarship

on tourism plan quality as well as the wider plan quality scholarship, since no studies to date, have integrated the tourism and climate change domains. Moreover, my research has added to the dearth of plan studies on the Caribbean-SIDS region and have provided a better understanding of the tourism plan making practices and processes from a Caribbean perspective.

Among the key points that the content analysis has uncovered is that plan preparation in the region is dominated by external tourism and environmental consultants from North America and Europe. Although there was no significant difference in the mean scores, it was found that the plans that were produced in-house obtained lower mean scores for their quality than those that were prepared by private consultants as noted in other plan quality studies. In addition, the use of consultants in the region affected the communicative quality of the plans since there were instances in which plans produced by the same consultants were similar in design and format.

In responding to the research question, *“What is the quality of the tourism plans in the Caribbean-SIDS region in addressing climate change?”* my research has found that while the region’s tourism plans reflected the characteristics of quality plans in general, they were weak in addressing climate change as they received a mean score of 3.7 on this criterion. They were mostly deficient in articulating fact base information on climate change. No reference was made to any international or regional accords, legislative frameworks, or goals such as the Paris Climate Agreement decarbonization goals, Caribbean Regional Framework goals or the UNWTO’s or WTTC’s goals on climate change.

While many of the plans acknowledged that projected growth in tourism will place added pressure on land demand for tourism activities, none articulated the implications of

climate change on future demand and supply for tourism land use. With recent and significant expansion in climate change-tourism scholarship, it was expected that the region's tourism planning decision-makers, technocrats and plan authors would tap into this knowledge base to inform the crafting of responsive climate change policies and goals for the tourism sector. These stakeholders will have to be cognizant of how climate change is framed as an issue in the sector, as this will determine the approaches and strategies that will be adopted (Guyadeen et al., 2019; Koski & Siulagi, 2016). For instance, the plans' weak climate change fact base information impacted on their expression of climate change goals which resulted in a mean score of 1.9.

Policy targets for emission reduction were absent in the plans. Similarly, only a handful of plans cited any adaptation goals which were found to be very vague and aspirational. This is concerning especially since the region is acknowledged as the most tourism dependent and among the most vulnerable to climate change. Policy actions were scattered throughout the plans with no specific reference to climate change in most cases. Likewise, the plans did not clearly establish the link between sustainable tourism and climate change.

The plans also need strengthening in terms of implementation, interorganizational coordination, and monitoring and evaluation to achieve the desired results for climate change responses in the sector. Although some of the plans included a section on monitoring and evaluation, specific details were lacking and were not climate change specific. None of the plans indicated any coordination with the CCCCC, the region's central organization for climate change responses or any international climate change organizations. This suggests that climate change efforts in the sector are not being fully informed and coordinated. If adequate provisions are not made for implementation and monitoring and evaluation in the

plans, then the tourism plan making process in the region will become a futile exercise, rather than an important output of the planning process. Similarly, without effective interorganizational coordination, this reduces the prospects of obtaining the general “buy in” on climate change responses and achieving policy coherence across various scales and subsectors of tourism.

Although participation received the second highest score (4.4) among the eight plan quality principles, it is nonetheless low. This low score reiterates that more efforts are needed to actively engage stakeholders in climate change responses in the tourism sector.

Chapter Six

6 Results and Discussion of the Survey

This Chapter presents the findings from the survey completed by twenty-two respondents. It highlights the similarities and differences with my research results and the literature reviewed. The Chapter builds on Chapter Five, by explaining some of the findings of the content analysis of the region's tourism plans. The results of the survey provide responses for the study's three research question. Hence, the information is organized based on these questions.

6.1 Contextualizing the Responses to Research Question One

Respondents were asked to indicate what they perceive as the top three challenges facing their nation's tourism sector. They were also required to state if climate change presented any opportunities for their respective nation's tourism sector. The responses to these questions offered additional insights and aided in contextualising the issues.

6.1.1 Respondents' View of Challenges Presented by Climate Change

While the challenges cited by respondents fell into the four broad categories of climate change impacts on the tourism sector (see Scott et al., 2012; UNWTO et al., 2008), most of these challenges were direct impacts from changing climate regimes and indirect environmental change and cultural heritage impacts. Sea level rise, increased intensity and frequency of hurricanes/storms, and flooding were the top three challenges cited by respondents (Table 6-1). These responses were in keeping with the IPCC's findings of SIDS in general (see Hoegh-Guldberg et al., 2018 and Table 2-3) and the impacts cited in some of the region's tourism plans.

Other challenges identified were coastal erosion, rising insurance premiums for the sector, location of the tourism infrastructure along the coast making them vulnerable to climate change impacts, absence of beach nourishment programs, damages to reefs, among others. Only one respondent referred to the reduction in GDP as a challenge, which is classified as an indirect societal change impact. It was expected that more respondents would have articulated that climate change poses a serious challenge for their countries' GDP, given the region's dependence on tourism. None of the respondents identified carbon pricing or low carbon transition as challenges, which have implications for the region's tourism sector.

Table 6-1

Top Three Challenges Confronting Respondents' Tourism Sector

Respondents' Code	Challenge 1	Challenge 2	Challenge 3
1	(Sea level rise (SLR)	Natural disasters	Warming of the oceans
2	Increased coastal degradation and loss of beaches	Increased risk of droughts	GHG emissions
3	SLR and disruption of hydrologic cycle and drought	Sustainable agriculture	Saltwater intrusion
4	Adverse weather	Drought	SLR
5	SLR	Coastal / beach erosion	The quantity & frequency of sargassum washing up on coastal areas
6	Hurricanes	Tropical storms	SLR
7	Increased hurricanes	SLR/ tidal waves	Beach erosion
8	Resilience to natural disasters. Damage to hotel infrastructure	Extended periods of drought	Reduction in GDP
9	Extreme weather events	SLR	Lack of water in the dry season

Respondents' Code	Challenge 1	Challenge 2	Challenge 3
10	Disasters	Environmental problems	Damage to our reefs and coastlines
11	Increased frequency of major storm events	Rising temperatures from GHG emissions from larger countries	Lack of access to sufficient money to support recovery efforts and rising cost of premiums for catastrophic risk insurance
12	More intense tropical cyclones	SLR and coastal erosion	Warmer and more acidic oceans
13	Flooding and erosion in coastal areas	Declining freshwater resources	Sustainable use of coastal resources
14	Drought - fresh water availability	Coastal erosion	Increased number and intensity of tropical systems
15	Hurricanes	Drought	SLR
16	Pollution in the more urban areas	Flooding	Lack of awareness by the public that climate change is real
17	Extreme weather events specifically hurricane	Extreme drought and so lack of freshwater	SLR and shoreline erosion
18	Greater number of storms	Greater damage by storms to infrastructure	More dry weather
19	SLR	Erosion of coastline	Intense weather
20	Severe weather	-	-
21	SLR and erosion	Increasing temperature/health spell	Flooding
22	Increased hazards, hurricane	Increased storm surge, reef degradation	Increased periods of drought and flood events

6.1.1.1 Top Climate Change Challenge that Respondents Felt their Nation's

Tourism Sector was Least Prepared For

Of the climate change challenges respondents identified, they were asked to indicate which they thought their nation's tourism sector was least prepared for. Eight (36%)

respondents noted sea level rise, which was also recognized in the literature as one of the most serious threats to Caribbean-SIDS. When pressed for a rationale, many of the respondents indicated that their countries were low-lying, and that the majority of the tourism infrastructure was located in these areas. This response was consistent with the findings of a study on the region which revealed that as much as 29% of major tourist resorts in the Caribbean could become partially or fully inundated with a one-metre level sea rise (see Scott et al., 2012). This study on Caribbean resorts also disclosed that 49% to 60% of properties would be damaged due to beach erosion.

The respondents were also concerned about the impacts of sea level rise on the availability of freshwater resources. One respondent further explained that:

It negatively impacts freshwater resources and potable /domestic water supply [*sic*] is essential to the sector. Water companies are finding it difficult to provide water to competing sectors hence hotels have to be drilling for it's [*sic*] own water supply (Respondent 19, 2020).

Water was one of the top six challenges of climate change impacts that the CTO cited (see CTO and EU, 2008). Other respondents expressed that there was a lack of proactive long-term resiliency planning to deal with the projected impacts. Few respondents articulated that while there exist policies to achieve the desired results, there is no implementation of actions and therefore, the loss of tourism infrastructure particularly along the coast is eminent. Among these respondents, one of them expressed that:

Majority of development (tourism) happens along the coast and some in the marine environment. Although there are policies stipulating setbacks, very little

implementation is done. Hence, loss of coastal infrastructure is eminent and there are no current mechanisms to combat this (Respondent 17, 2020).

6.1.2 Opportunities Presented by Climate Change in Caribbean-SIDS

Not all impacts of climate change are negative, and so respondents were asked to indicate if they thought that climate change presented any opportunities for their country's tourism sector. Twelve (55%) respondents noted that climate change presented some opportunities while four (18%) expressed that it provided no opportunity. Among the most cited opportunities was diversifying the tourism sector in the areas of eco-tourism, agri-tourism, and art and heritage tourism. These respondents alluded to exploring ways to engage in the green economy in the tourism sector and relying on more renewable sources of energy. These forms of tourism would reduce reliance on fossil fuel compared with the traditional sun, sand, and sea tourism offerings in the region. One of these respondents stated that, "moving away to some extent to tourism activities on the terrestrial side which would surely diversify the existing product offerings" (Respondent 22, 2020). Diversification of tourism product can amplify the need for climate change adaptation, especially for coastal tourism.

Some respondents expressed that since spatial planning policies focus on promoting sustainable tourism practices, climate change therefore presents an opportunity for their country to adopt to shifting philosophies geared at resource protection and enhancing resilience. As such, one of these respondents stated:

Exploring ways to green the economy to reduce our own reliance on fossil fuel and increase sources of renewable energy. Also, spatial planning policies have become increasingly focused on preservation of natural heritage assets, which promotes sustainable tourism best practices. Basically adapting our country to how the world is

changing and implementing measures to protect our resources to enhance our resilience (Respondent 11, 2020).

Similarly, other respondents indicated that climate change presents a window of opportunity to improve their country's infrastructure and to build resilience to extreme weather events. One of these respondents stated:

An opportunity to explore more sustainable and climate resistant tourism. The islands are known for sand, sun, and beach and the feel-good lifestyle. However due to these coastal area [*sic*] being impacted by climate change there is opportunity to explore and develop other areas such as eco-tourism, agri-tourism and art & heritage. During this global pandemic the health consciousness is trending as such health, rehabilitation & therapeutic tourism can also be developed along with usual tourism being marketed for tourism destinations. There is very much a need to diversify the type of tourism being offered by the various Caribbean [*sic*] (Respondent 8, 2020).

It was established in the literature review that a negative effect of climate change in one locality may produce a positive outcome elsewhere (Scott & Gössling, 2018). The IPCC also noted that the aggregate impacts on specific destinations will vary and will depend on the level of exposure, sensitivity, the existing adaptive capacity, and temporal factors (Allen et al., 2018). Some respondents noted that their country could gain market share over time from their regional competitors. One of the respondents expressed that, "We lay at the edge of the hurricane belt. While other islands may suffer during the hurricane season, we can benefit from this by accommodating yachts and other cruisers in the Caribbean" (Respondent 21, 2020). Although some nations in the region may have lower climate risks (see Scott et al., 2019), it is important that these respondents and decision-makers understand that the process

does not only involve accommodating visitors from their competitors. Rather, it requires proactive planning on their part to address the impacts of climate change on the sector and to exploit any opportunity that the phenomenon may present.

“Finance for mitigation projects” was cited as an opportunity (Respondent 20, 2020). It could not be established from this respondent whether this entailed mitigation financing for emission reduction or renewables. SIDS in general do not possess adequate resources to address climate change responses. Climate change responses in the region are externally linked (Kelman, 2010), which limit the capacity of these nations to make informed decisions and have greater control in this regard. Therefore, given the opportunity cost, it is questionable whether climate change presents an opportunity for financing mitigation projects as noted by some respondents.

Interestingly, six (27%) respondents were unsure whether climate change presented any opportunities for their country’s tourism sector. Typically, other than being able to access funding for low carbon energy transition, climate change does not present many opportunities for the region’s tourism sector. It could also be argued that many of the opportunities that climate change presents are temporary in nature (Chin et al., 2019; K C, 2017) and that some positive impacts could result in negative repercussions in the future (Demiroglu & Hall, 2020). Given these factors and weighing the opportunity costs, the position taken by these respondents is understandable. From another point of view, the uncertainty among some of the respondents with regard to the opportunities that climate change presents for their tourism sector could also be due to a genuine lack of knowledge in this regard. Their inability to identify climate change risks will restrict their comprehension of opportunities.

6.2 Research Question 1: What Are the Characteristics of a High-Quality Climate Change Tourism Plan?

As discussed in Chapter Four, there is convergence of thought in the literature about certain basic characteristics of a quality plan. Eight common core plan quality principles were used to evaluate the quality of the tourism plans as discussed in Chapter Five. While these eight core plan quality principles are internationally recognized, I wanted to ascertain the respondents' perspectives on these standards for a Caribbean-SIDS context. Accordingly, the respondents were asked to indicate how important each of these core plan quality principles were for a climate change-tourism plan.

6.2.1 Respondents' View of the Core Plan Quality Principles

Respondents thought that each of the eight commonly agreed upon core plan quality principles was important (Table 6-2). As mentioned previously, one of the drawbacks in plan quality evaluation studies is the practice of applying equal weighting to each core plan quality principle, based on the assumption that each principle is accorded the same level of importance (Guyadeen et al., 2019; Stevens, 2013). While my study was not statistically significant, it nonetheless offered an initial attempt to highlight that there was greater consensus among respondents around the importance of some of the core plan quality principles more than others. For example, implementation was considered as the most important plan quality characteristics by 21 (96%) of the respondents. This was followed by monitoring and evaluation and participation. Although 16 (72%) participants thought that plan organization and presentation were important, this was nonetheless regarded as the least important among the eight plan quality principles.

Table 6-2*Respondents' View of Core Tourism Climate Change Plan Quality Principles*

Core Plan Quality Principles	Number of Respondents		
	Unimportant	Neutral	Important
Plan Organisation and Presentation	1	5	16
Fact base	0	3	19
Goals	0	3	19
Policies	0	3	19
Interorganizational Coordination	0	3	19
Monitoring and Evaluation	0	2	20
Participation	0	2	20
Implementation	0	1	21

While implementation as well as monitoring and evaluation are noted as critical in the literature, plans in general fail to satisfy these plan quality principles (see Baker et al., 2012; Baynham & Stevens, 2014; Berke et al., 2015; Jacobs, 2014). Similarly, my assessment of the region's plans found that the plans were weak in terms of implementation (2.8) and monitoring and evaluation (3.7). Future plan quality studies could examine the extent to which these two core plan quality principles impact on the success of plans in achieving their stated objectives.

Despite nine (43%) participants expressing that there are other principles that should be included, it was found that the recommendations they provided would fall into one of the eight core plan quality principles. Among these recommendations were: “Monetary figure to ensure timeline and milestones are kept within budget for transparency,” (Respondent 19, 2020) “Active education and outreach after development of the plan to ensure widespread understanding and use,” (Respondent 12, 2020) and “Collaboration with other countries

regionally and internationally” (Respondent 6, 2020). These recommendations provided by the respondents would fall under the core plan quality principles of implementation, participation, and coordination, respectively.

6.3 Research Question 2: What is the Quality of the Tourism Plans in the Caribbean-SIDS Region in Addressing Climate Change?

Participants were asked their perception of the purpose(s) of a tourism plan in general and the purpose of their country’s tourism plan. It was envisioned that their view of a tourism plan would influence how they perceive the quality of their nation’s tourism plan.

6.3.1 Participants’ Perception of the Purpose of Tourism Plans

The literature suggests that tourism plans serve several purposes since there are several types of tourism plans (Hack, 2018; Kelly, 2010; World Bank, 2015; Veal, 2017; Vukotic & Vojnović, 2019). Among the purposes that these scholars have highlighted are: (a) environmental, (b) economic, (c) spatial planning, (d) social /cultural integration, (e) business and marketing, and (f) contingency planning. Similarly, respondents believed that a tourism plan should serve several purposes. Among the top four purposes of a tourism plan identified by respondents were environmental (21), spatial, economic, and social/cultural (20 each) (Table 6-3). Fewer participants (16) were evenly split in their perception that the purpose of a tourism plan should be for economic and contingency planning, respectively.

Among the other purposes that some of the respondents offered were, “Disaster Risk Reduction Management: provide all hazards plans and policies for prevention, mitigation, readiness, response and recovery” (Respondent 13, 2020) and “Marine planning –

appropriate infrastructure and routes for cruise ships” (Respondent 6, 2020). These other purposes that the respondents have indicated can be considered environmental.

Table 6-3

Purposes of a Tourism Plan vs Purposes of Respondents’ Country Tourism Plan

Purpose	Respondents’ Perception of a Tourism Plan	Respondents’ Perception of their Country’s Tourism Plan
Environmental	21	12
Spatial Planning	20	10
Economic	20	17
Social/Cultural Integration	20	11
Business and Marketing	16	14
Contingency	16	5
Other	3	1
Unsure	0	0

Having obtained respondents’ views of the purpose(s) of a tourism plan in general, they were then pressed on what they thought was the purpose(s) of their respective nation’s tourism plan. Seventeen (77%) of them indicated that their national tourism plan served an economic purpose which entails shaping the sectoral and spatial patterns of tourism development, creating employment and labour training as well as redistributing wealth (Table 6-3). This finding was in keeping with my assessment of the sample of tourism plans that were included in the study as well as tourism plans internationally (see Murphy & Murphy, 2004). Fourteen (64%) respondents thought that their country’s tourism plan was for business and marketing, covering advertising, promoting, sponsoring, and guiding tourism business development plans to increase visitor arrivals and enhancing visitor

satisfaction. These business and market purposes as cited by the respondents are linked to an economic focus.

Twenty-one (96%) respondents had indicated that a tourism plan should serve an environmental purpose, however, only twelve (55%) of them indicated that their country's tourism plan served this purpose. My sense is that through an environmental purpose that the tourism sector can strive to be sustainable and begin to craft policies and actions that target climate change. Hence, future tourism plans in the region will need to better articulate their environmental purpose.

6.3.2 Respondents' Perception of the Quality of their Country's Tourism Plan

Only two (10%) respondents thought that their country's tourism plan adequately addressed climate change, while twelve (55%) stated that they were inadequate. Seven respondents (32%) were unsure of whether their country's tourism plan adequately addressed climate change and one respondent stated that no tourism plan existed for their country. The findings of the survey produced comparable results with my evaluation of the plans. I found that tourism plan quality in the context of climate change in the study area was low with a mean score of 3.7. The region's plans missed certain key elements and were not comprehensive in their articulation of key climate change issues and responses. Similarly, scholars have concluded that climate change is not a priority for policy makers, as the integration of climate change in tourism documents in general, is minimal in terms of scope, materiality, and coverage (see Becken et al., 2020; Santos-Lacueva & Velasco González, 2018).

Among the chief reasons respondents gave for stating that their country's tourism plan was inadequate in terms of climate change coverage were: (a) "plan is outdated ... created

before climate change became an issue” (Respondent 15, 2020); (b) “no contingency or programs in place for climate change” (Respondent 19, 2020); (c) the focus of the ...plan is not on climate change” (Respondent 5, 2020) and (d) “it needs to be incorporated in the planning legislation” (Respondent 22, 2020). Another respondent provided additional insights about the quality of their country’s tourism plan and the factors affecting plan quality, noting that:

While the agency responsible for writing and developing this plan is still working to strengthen it based on plans for more immediate pockets of sustainable development and marketing are being executed, some aspects do not immediately address in a more forceful manner the major challenges we face and how to address them in a timely manner. It should also be noted that many of these initiatives are not being able to be done because of lack of full funding (Respondent 16, 2020).

Subsequent follow ups with a few respondents who expressed uncertainty about the adequacy of climate change coverage in their country’s tourism plan, revealed that their uncertainty is linked to their unfamiliarity with the plan. This situation reflects that not enough communication takes place between the different stakeholders who should be part of the process in developing effective climate change responses in the region’s tourism sector. It also reiterates the need for tourism and climate change policy makers and researchers to collaborate more to facilitate policy integration and develop rigorous policy and monitoring outcomes among the two domains (Becken et al., 2020).

Some nations had a tourism plan, but it was not available to the public - for example Grenada and Suriname. Contrastingly, Cayman Islands and Barbados encouraged their citizens to review and share the plans. Since plans are the principal tools to influence growth

and development (Baer, 1997; Lyles & Stevens, 2014) and are symbolic of the approach to implement strategic goals and policies (Baker et al., 2012; Ryan, 2011), it is important that they should be in the public's domain. The practice of withholding a tourism plan from the public can stifle communication and citizens' engagement in the planning process. If plans should aid in informing our practical judgements by integrating causes and reasons and providing the rationale for certain actions (Hoch, 2009; Lyles & Stevens, 2014), then these plans should be publicly available to ensure transparency and accountability in the tourism planning process, and to inform and educate stakeholders.

6.3.3 Impacts of the Quality of the Tourism Plans to Effectively Contribute to Climate Change Responses in the Tourism Sector

Fourteen (61%) respondents noted that the quality of their country's tourism plan affected their organization's response to contribute effectively to climate change albeit, nine (41%) of them stated that the impacts were negative. Three (14%) respondents noted that it had no impact, while the remainder were unsure.

Among the negative impacts cited by respondents was the admission that improper planning leads to mediocre performance. Consequently, without a plan, it has made it difficult to respond to the climate change challenges adequately and effectively within the tourism sector. One of these respondents stated that, "it impacts the ability of my department to formulate effective planning policies to respond to climate change challenges" (Respondent 6, 2020).

Another respondent expressed that, "Much scarce resources have to be mobilized and used to respond to adverse impacts that could have been avoided were considerations given,

prior to construction of climate change impacts and environmental sustainability”
(Respondent 13, 2020).

Some respondents noted that the lack of a tourism plan that addresses the climate change challenges has made it difficult for local and tourists to understand the plight that climate change presents for the sector and efforts to address these challenges. One respondent stated, “I believe the lack of a plan ... has made it for some travellers and many locals to not see climate change and the threat it poses to us all in an equal light” (Respondent 16, 2020).

Similarly, it was noted that the tourism entities do not prioritize the issue of climate change, which makes it difficult for organizations to offer aid. One respondent lamented the practice of tourism planning in their country:

Tourism is centered on erecting building in swamps and on white sand beaches.
Tourism related activities are high carbon users. Facilities use a disproportionate amount of the country's water resources. It generates much pollution including solid wastes (Respondent 13, 2020).

Others noted that because the current plan does not give much attention to climate change, their organization has made a minimal contribution in this regard. Accordingly, some of these respondents indicated that, “climate change [*sic*] not included in the plan and so no attention paid to the need for climate change responses (Respondent 12, 2020) and “Because it [*sic*] not given much attention no contribution is made” (Respondent 10, 2020).

A respondent expressed:

It is not the legislative component (planning and development laws) that is the priority in my opinion and no changes are going to happen in that area until the climate change scientists provide hard, localised evidence to support general, globalised theories about

climate change. These elements would then drive the changes in the tourism sector (Respondent 5, 2020).

This respondent also expressed that a climate change-tourism plan sounds like “another non-starter (a proverbial dust collector) and that unfortunately it will end up being completely ignored.” While this respondent did not provide a reason for their stance, it is nonetheless worth noting that there is dissonance among some professionals in the region in support of a climate-informed tourism plan. This dissonance could probably be because of the approach(es) taken in the past or the lack of seriousness which is being afforded to climate change in the sector.

Among those respondents who expressed that the plans had a positive impact, one of them noted that it, “allows for impacts to be considered at the local and national levels and identifies vulnerable areas” (Respondent 9, 2020). Another stated that, “it assists with supporting recommendations to be made to different agencies such as physical planning for coastal development” (Respondent 14, 2020). Alternately, one respondent explained that, “our country’s tourism plan provides clear strategies and measures that generally provide some guidance on how site-specific recommendations align best with the policy goal or target for specific resources or tourism assets” (Respondent 11, 2020).

6.4 Research Question 3: How Can the Quality of Tourism Plans in the Region Be Improved to Address Climate Change?

Questions were posed to respondents to aid in developing recommendations to improve the quality of the region’s tourism plans and future tourism plans in the context of climate change. These questions covered elements such as the best options and approaches for climate change responses, factors that should determine how climate issues are prioritized in

the plan, appropriate scale for a climate change-tourism plan, time coverage of the plan, among others. Most of the responses from the survey were consistent with the conclusions and recommendations offered in the literature. The results that deviated from previous studies, provided a base for which to assess whether existing theories and practices in planning are relevant and applicable to a Caribbean-SIDS context (as explored further in Chapter Seven).

6.4.1 Best Option for Climate Change Responses in the Plans

The literature suggests that adaptation should be a priority for the region, given that impacts are already being felt, the collective GHG emissions of the nations are relatively marginal and there are resource constraints (see Betzold, 2015; Mycoo, 2018; Robinson, 2019; Taylor et al., 2012; Thomas et al., 2019). Globally though, there is recognition of the urgent need for the sector to reduce its emission while adapting its businesses and destinations to the impending changes (Michailidou et al., 2016). Respondents sided with the trends in global efforts, as 19 (86%) of them thought that the plans should focus on both mitigation and adaptation. In crafting future tourism plans and revising the current tourism plans in the region, there will be need to incorporate policies and goals on mitigation, and consider the implications of mitigation policies of other nations on the region's tourism sector, as based on my assessment, these are absent in existing plans.

6.4.2 Principal Factor to Prioritize Climate Change Issues in the Plans

Prioritizing climate change issues can enhance climate change planning since it is generally understood that resources are finite. Different approaches can be used to prioritize climate change issues in the tourism sector. Multi-criteria decision analysis using

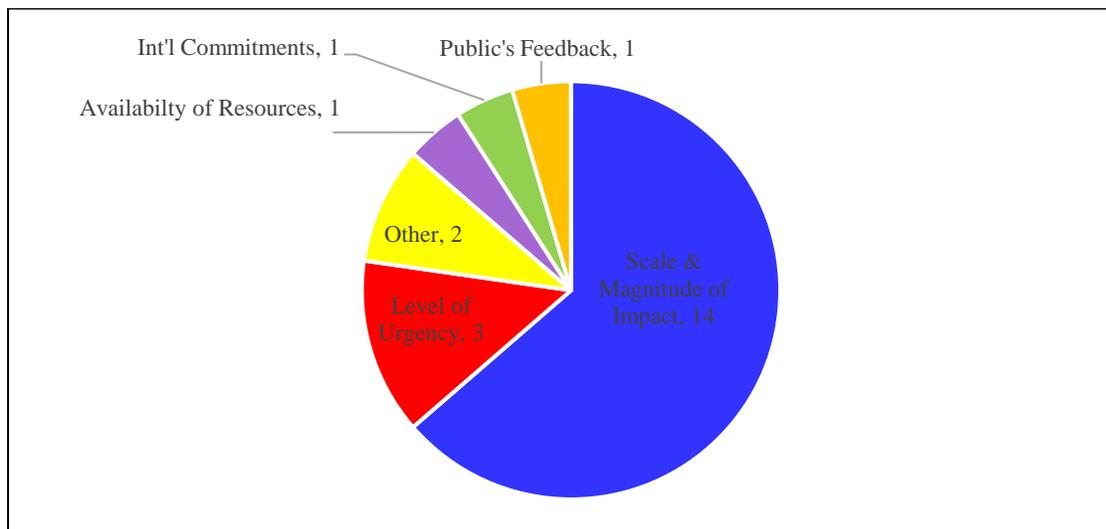
environmental benefit, applicability, cost, and social acceptance was recommended to prioritize climate change issues in Greece’s tourism sector (Michailidou et al., 2016). Vulnerability indices have been used to assess priority areas for adaptation particularly regarding climate financing (Scott et al., 2019).

Fourteen (64%) respondents expressed that the scale and magnitude of projected impacts should be the principal factor when determining how climate change issues are prioritized in a tourism-climate change plan (Figure 6-1). Three (14%) respondents believed that the level of urgency should be a deciding factor in the prioritization of issues. Surprisingly, only one respondent noted that the availability of resources should be used, given that the literature often highlights the lack of resources (and divisibility of costs) in Caribbean-SIDS (see Bishop & Payne, 2012; Thomas et al., 2020).

Two (9%) respondents added that, “socio-economic impacts” should be used as the principal factor to determine how climate change issues are prioritized in the tourism plan. These two respondents offered no further insight on what specifically this would include or how this should be conducted.

Figure 6-1

Respondents' View of Principal Factor to Prioritise Issues in the Plan



6.4.3 Most Appropriate Geographic Scale for the Plans

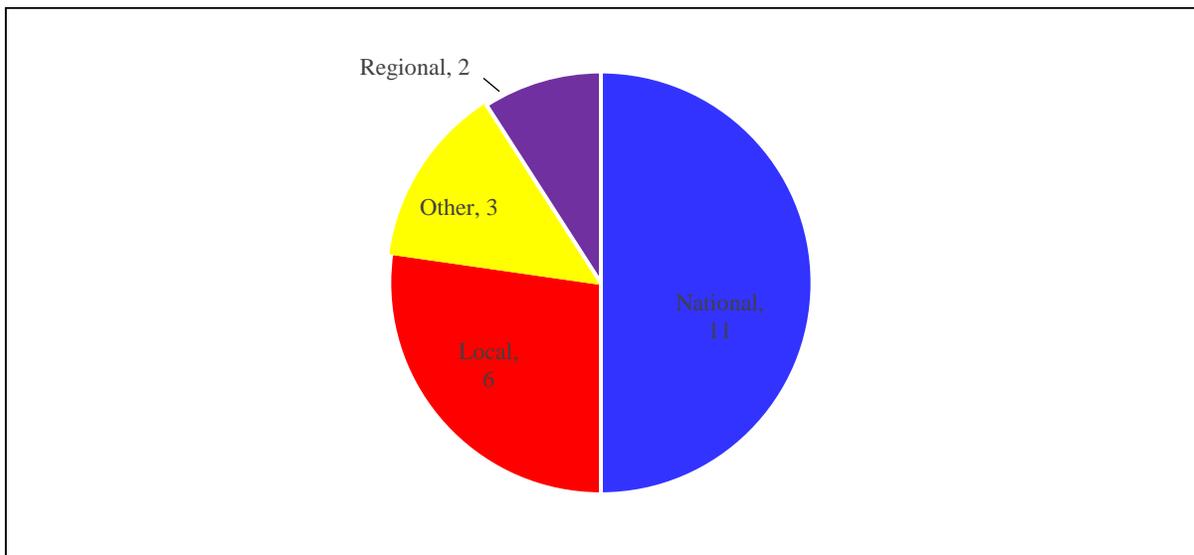
Although climate change is a global issue, the impacts felt vary across jurisdictions (Boswell et al., 2019; Filho & Keenan, 2017; WEF, 2020b). Some scholars argue that policy formulation and implementation for climate change responses should be dealt with at different scales (Kumar & Geneletti, 2015; Landauer et al., 2019; Preston et al., 2011). The responses from the study's participants reflected differences in opinion with regard to the most appropriate scale for a climate change-tourism plan.

Eleven (50%) participants felt that a national scale was the most appropriate (Figure 6-2). These respondents noted that since there is a high dependence on tourism nationally, then any form of tourism planning should be administered at this level. Some of them further expressed that policies on climate change and disasters are implemented at the national scale, so it is fitting that tourism plans be done at this scale and be integrated with these existing policies. Few of them stated that it would be more cost effective to produce a plan of this

nature at the national level, given the general small scale of the countries in the region. Of note, one respondent stated that while the plan should be produced at the national scale, it “should be made up of smaller plans/feedback forms based on the country's geographical locations and needs of those locations” (Respondent 16, 2020).

Figure 6-2

Respondents' View of the Most Appropriate Scale for the Plan



Six (27%) respondents felt that the local scale was more appropriate which would cover municipalities, resort towns, zones, and corridors. One of them expressed that the local scale, “can more greatly incorporate the participatory function of community” (Respondent 22, 2020). The others contended that the local scale allows for more precise expression of managing the activities involved, and so it will require the consolidation of the capacity of the local authorities and organizations. One respondent noted that since tourism activities are mainly concentrated along the beach, then a tourism plan of this nature should be done at the local scale. In planning at the local level however, consideration will have to be given for

capacity, access to funding and the incorporation of existing national policies on tourism and climate change.

Two (18%) respondents thought that the regional level was more appropriate. One of these respondents noted that, “as SIDS we are pretty close to several other islands and what impacts the others has potential to affect us. It is wise to think I [*sic*] collective to face similar challenges” (Respondent 20, 2020). It was noted in the literature review that one of the key lessons learned from climate action planning in the region, is that while regional countries share some similarities, they are unique (Mycoo & Donovan, 2017). This could explain why only two respondents thought a regional scale was more appropriate for a climate change-tourism plan.

In view of this revelation however, while a national scale is most favoured, given the lack of resources and capacity issues, it may prove to be ambitious and not feasible in the short run. This is so particularly for the smaller islands that are currently experiencing challenges in developing a traditional tourism plan, let alone a climate change-tourism plan. Regional guidelines may therefore be a viable short-term alternative in this regard. Notwithstanding, consideration will have to be given for inter-regional competitiveness.

6.4.4 Best Approach to be Adopted for the Plans

Based on the procedural theories of planning, there are several approaches that can be adopted for the preparation and implementation of plans. Among the most popularly used approaches are synoptic, incremental (Lindblom, 1959), transactive (Friedmann, 1973), advocacy (Davidoff, 1965) and radical. The synoptic approach, also referred to as the rational comprehensive approach, modified significantly over the years, remains the dominant

approach in plan making today despite the criticisms levied against it and the development of more progressive approaches in planning (Hudson, 1979).

The synoptic approach was most favoured by eight (36%) respondents (Figure 6-3). With this approach, targets could be established in the respective plans, and the public and/or private sector institutions would be encouraged to work towards these targets within a certain time. This end-state approach, as it is also called, is the current tourism planning approach used in most Caribbean-SIDS. Follow-ups with a few tourism authorities in the region that are working on producing a new tourism plan, have indicated that they are moving towards a strategic approach.

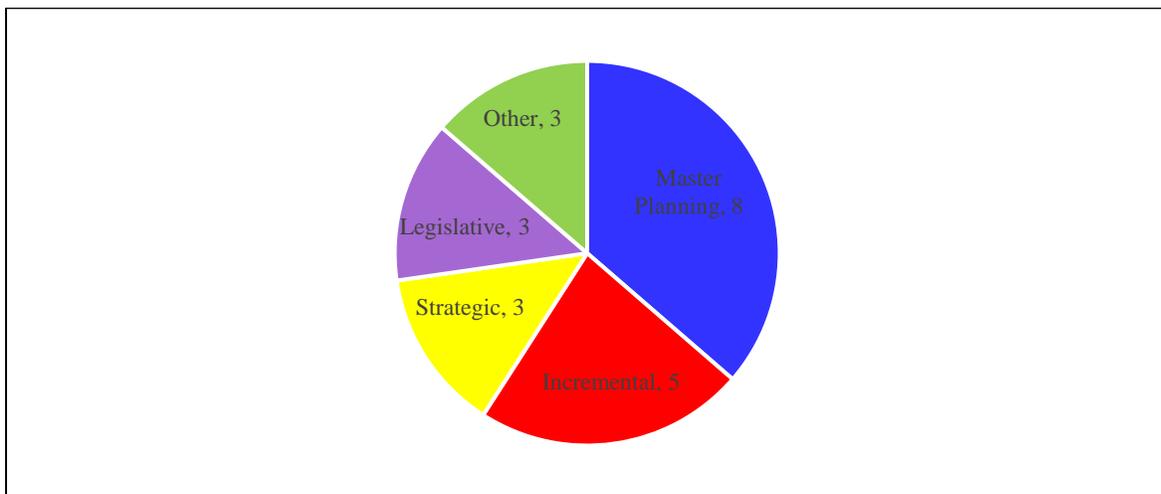
Five (23%) respondents favoured an incremental approach which entails formulating actions and strategies to be implemented at distinct phases of the process to allow for constant adjustments and reflect the changing conditions. There were suggestions for a hybrid approach among respondents - noting that this approach should involve elements of strategic, incremental, and rational planning. Some respondents thought that it would be important to adjust targets as new challenges emerge. Given the uncertainty of climate change, and the myriad of challenges that confront the region, incremental or hybrid approaches may be more appropriate particularly for the smaller nations.

A few respondents expressed that there should be some form of legislative incorporation in the process which would provide justification and guidance for actions taken. One respondent noted that accurate evidence-based data are critical to influence key stakeholders and minimize the vulnerabilities in the region's tourism sector. According to this respondent:

The best approach I would suggest is for each island to establish an empirical, evidence-based measurement of their own sea level and from there provide empirical, evidence-based data showing sea level rise over time. This seems almost impossible to accomplish because of the need to [sic] large, accurate historical data sets which do not exist in most Caribbean Islands. If we can provide evidence of the rate of sea level change over time that is specific to each island - we have a chance of influencing the public, the politicians, the developers and the insurance sector, and also the planning and development laws which could result in changes that minimise the new vulnerabilities we are adding to our economies by building tourism accommodation in areas that are not likely to be sustainable in the long-term (Respondent 5, 2020).

Figure 6-3

Respondents' View of the Best Approach to be Adopted for the Plan



6.4.5 Time Coverage for the Plans

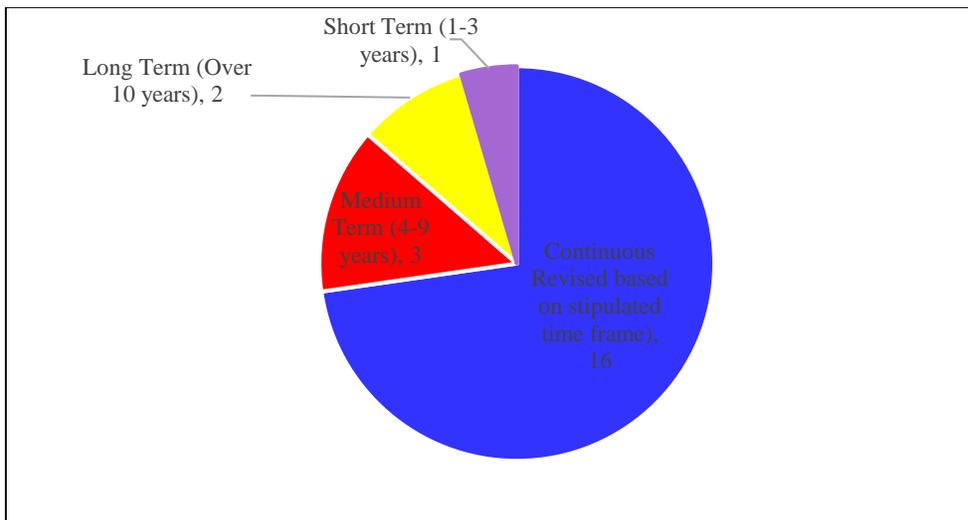
While tourism plans in general have a specific time horizon, my search of various online databases has revealed that in most instances, climate action plans do not include a

time coverage but rather a publication date. The absence of time coverage for climate action plans is understandable given the uncertain nature of climate change. A climate action plan may undergo several revisions as required.

Sixteen (72%) respondents agreed with climate action practices (Figure 6-4). They expressed that a climate change-tourism plan should not have a predetermined time horizon, but should be continuous and revised based on a timeframe mentioned in the plan or enacted by legislation. While the current tourism plans in the region are long-term as they have an average time span of 10 years, there was recognition among the respondents that a tourism plan of this nature requires great flexibility in time coverage. This flexibility can allow for modifications so that the actions and strategies contained therein, can be responsive to the changing situations, and can permit greater administrative authority of the plans.

Figure 6-4

Respondents' View of the Most Appropriate Time Coverage for the Plan



6.4.6 Principal Stakeholder to be Responsible for the Preparation of the Plans

It is argued that planners can help to strengthen climate action planning (Bassett & Shandas, 2010) and produce better quality climate plans (Woodruff & Stults, 2016). In practice however, the production of climate plans is not directed by planners but rather the public works departments, environmental services departments, and sustainability bureaus (Bassett & Shandas, 2010; Meerow & Woodruff, 2019). The participants in the study expressed similar sentiment with what occurs in practice as many of them did not think that the planners should be responsible for the production of a climate change-tourism plan.

Thirteen (59%) respondents thought that tourism ministries/ agencies were the most suitable to oversee the preparation of these plans (Figure 6-5). Of note, is that three of these respondents also expressed that while it should be the responsibility of the tourism authorities to prepare the plans, it should be a collaborative effort with planners, climate change specialists, built environment professionals, NGOs, and other stakeholders. These respondents felt that since the tourism industry crosses many sectors, stakeholders should be an integral part of the process during the planning phases to feel a sense of ownership and accountability to create a robust plan. As such, one of these respondents noted that, “It should be led through option (a) [Tourism MDAs] but created with input from all of the other elements. Tourism is an industry that crosses many sectors and professions” (Respondent 16, 2020).

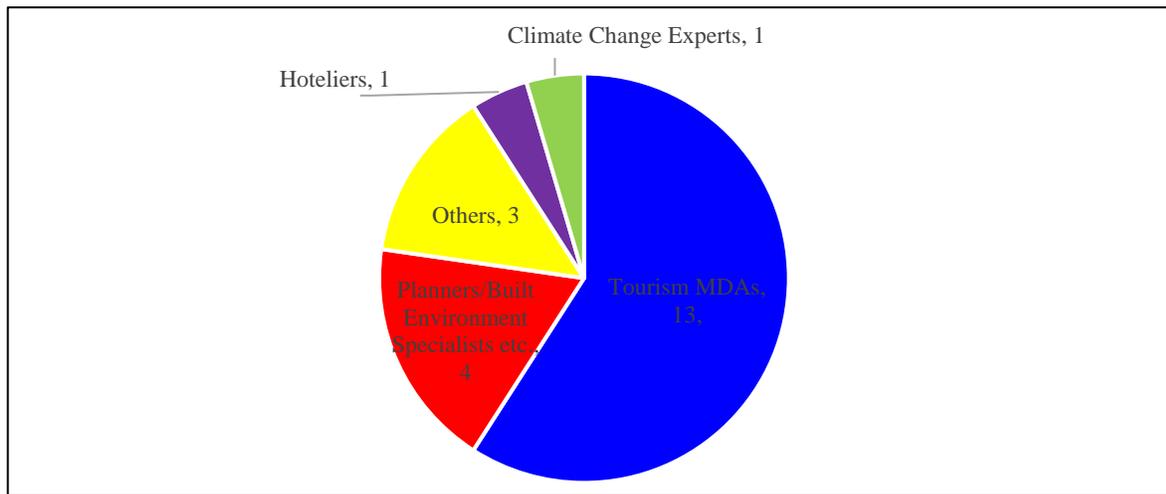
Three (14%) respondents thought that the plans should be led by climate change experts. Interestingly, my findings revealed that five of the respondents who expressed that the plans should be led by personnel from tourism organizations were planners. Their rationale for citing tourism personnel as principal stakeholders for the plan’s production may

be due to their overwhelming daily role and the shortage of trained planners in the region as expressed by some scholars. In addition, their position could be that they feel that they do not have the capacity to take on climate change planning and that it is highly technical as some scholars have noted in the literature review. Nevertheless, as expressed in Chapter Three, some tourism personnel have articulated their limitations in offering recommendations for climate change responses. Hence, it is questionable whether these tourism personnel should lead the process of formulating the plans.

The absence of planners overseeing the production of these plans could lead to a missed opportunity for planners to positively impact on climate action (Bassett & Shandas, 2010). It is argued that the magnitude and pace of climate change will depend on the level of planning engagement and how planners assist in responding to the potential impacts (IPCC, 2014). By balancing the demands that tourism places on land and coastal development, planners can allocate resources rationally to provide the requisite infrastructure and services and can help to minimize the impacts by modifying development patterns, promoting energy efficiency, and enhancing resilience and adaptive capacity (Frojmovic et al., 2013; Hurlimann & March, 2012; OMOECC, 2016).

Figure 6-5

Principal Stakeholder to Spearhead Tourism-Climate Change Plans



6.4.7 Actions Taken by Organizations in Caribbean-SIDS to Address Climate Change

There was evidence that actions are being taken by some organizations in the region to assist the tourism sector with climate change responses. Seventeen (77%) respondents reported that their organizations were involved in capacity development in the form of training and participation in climate change conferences, meetings, and information exchange fora. Similarly, 16 (72%) respondents expressed that their organizations were involved in information dissemination and raising awareness. One of these respondents highlighted that their organization has been focusing on raising awareness on conservation for wildlife and nature since these are the areas that the tourism sector has neglected. Only eight (36%) respondents stated that their organizations conducted research activities. These research activities according to these respondents included the development of an integrated water management plan and vulnerability risk assessments.

6.4.8 Actions Recommended by Respondents to Address Climate Change

Respondents were asked if they thought that more organizations including theirs should be engaged in providing appropriate responses for climate action. Thirteen (59%) of them responded in the affirmative while seven (32%) were unsure. Respondents thought that other organizations could lend their support when developing or revising the building code, engaging in mitigation actions such as revising or developing the energy policy and national energy strategy which should incorporate renewables, alternatives, and energy conservation, as well as enabling legislation to support sustainable resource management. Some respondents felt the need for more organizational support to ensure the enforcement of legislation related to climate change. Other suggestions offered were to assist in relocating settlements from highly vulnerable areas and creating improved standards for new buildings and retrofitting of existing buildings. Resilience planning and introduction of more meaningful planning policies, more public sensitization/ awareness on climate change impacts were also recommended.

It was noted that more research was needed since supporting scientific evidence and facts on climate change in the region was limited. The minimal geographic coverage of the tourism-climate nexus research in the region was highlighted in the literature review. One respondent expressed that, “satellite-based radar altimetry was needed... we need to find a way to establish the sea level baseline and begin measuring change over time... We can then provide evidence-based projections of change over time at high resolution” (Respondent 5, 2020). Interestingly though, this information exists for the region (see Joseph, 2014) and so this respondent’s unawareness of its existence may be an indication of the lack of information sharing among key stakeholders. What is needed is information on the impacts

of SLR on resorts in the region, which can be obtained using Light Detection and Ranging (Lidar⁸).

6.4.9 Factors that Could Enhance the Quality of Climate Change-Tourism Plans

Identifying the factors that could impede or enhance the quality of plans could allow for more informed decisions, and could help to determine the requisite resources. Among the factors that could influence the quality of plans are: (a) state mandates (Baynham & Stevens, 2014; Bunnell & Jepson, 2011; Tang et al., 2010), (b) strong political support (Baker et al., 2012; Bassett & Shandas, 2010; Tang et al., 2010), (c) inclusion of private consultants (Loh & Norton, 2015; Rydningen & Salbu, 2019), (d) provision of incentives and resources, (e) enhanced capacity of technical professional staff (Pendall, 2001; Woodruff & Regan, 2019), and (f) stakeholder consultation and information sharing (Tang et al., 2010).

Similarly, participants felt that several factors could affect the quality of a climate change-tourism plan. However, three factors vied for the top spots and recorded equal weighting among 17 (77%) respondents. These included: (a) legislative factors such as state mandates, by-laws, and policies; (b) political buy-in; and c) institutional factors for example, inter-agency collaboration. Some participants disclosed that opportunities for public participation (16), resource allocation (15) and human capacity (13) in the form of enhancing the technical skills of the professional staff could impact on the quality of the plan.

In addition to these factors that respondents have cited, my evaluation of the region's tourism plans has revealed that the quality of these plans could be significantly enhanced if they had a strong climate change fact base. Two respondents offered additional insights on

⁸ Lidar is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. These light pulses—combined with other data recorded by the airborne system — generate precise, three-dimensional information about the shape of the Earth and its surface characteristics. More information can be obtained from [NOAA's National Ocean Service](https://www.noaa.gov/education/outreach-and-communication/education-program/education-program-overview).

possible factors that could affect the quality of the plans. These include, “prevention of public policy and institutional capture by tourism interest, ensuring that the tourism lobby is not unduly influencing decision regarding tourism” (Respondent 13, 2020) and “public awareness of what needs to be done and the mindset everyone should have in relation to climate change” (Respondent 1, 2020).

6.4.10 Key Resources Required for Improving the Quality of the Plans

Successful implementation of climate plans depends on the resources available and the incentives to support plan production processes (Yalçın et al., 2012). There were no surprise responses from participants regarding the resources required to improve the quality of the plans. All the responses provided were aligned to the resource challenges and requirements noted by scholars for climate action planning in the region (see ECLAC, 2017; Frojmovic et al., 2013; Mycoo & Donovan, 2017; Polar & Mohammed, 2016).

All participants expressed that access to financial resources and available funds would be critical for the plan’s formulation. There was consensus that human resources were required such as designated personnel to deal with climate change responses. Twenty (91%) respondents viewed technological resources as important. These technological resources would include computer hardware and software to conduct forecasting and spatial modelling. Fewer participants (15) indicated that physical resources were required. No other suggestions for key resources were offered by the participants.

6.5 Chapter Summary and Concluding Remarks

The findings from the survey reflected that there was convergence of thought among respondents and scholars on certain issues. For instance, participants identified that the top

three challenges that were affecting their respective nation's tourism sector were sea level rise, increase intensity and frequency of hurricanes/storms, and flooding. Among these challenges, respondents expressed that their nation's tourism sector was least prepared for sea level rise, which will have implications for the sustainability and global competitiveness of the sector. Therefore, a priority area for regional governments would be to develop actions that build the region's tourism sector's resilience against sea level rise.

Various adaptation measures will have to be explored including beach nourishment, flood proofing hotel buildings, and engineering options such as levee construction. An assessment of these adaptation options will be required to ensure that they are conducive to the socio-economic and environmental contexts of these nations. This assessment is important since there are examples whereby previous implementation of adaptations strategies in SIDS have failed because of disregard for context (see Betzold & Mohamed, 2017; Ratter et al., 2016).

Most participants had indicated that climate change presents an opportunity to diversify their nation's tourism sector. Although diversification may not be considered as an opportunity, it nonetheless can accelerate the need for climate change adaptation. In addition, it reflects the shift in thinking among key stakeholders in the region about traditional mass tourism that has pervaded the region's tourism sector.

There was convergence of thought among respondents and scholars on the eight core plan qualities of a climate change-tourism plan. However, respondents believed that implementation, monitoring and evaluation, and participation were most important, while plan organization and presentation were considered as least important. There was agreement among respondents (echoed in the literature) that a tourism plan can serve several purposes,

albeit there was more inclination towards an environmental purpose among respondents. Interestingly, most participants felt that their country's tourism plan served an economic purpose. It was not surprising that most respondents did not think highly of the quality of their country's tourism plan in addressing climate change.

In terms of how the quality of the plans could be improved, most respondents were not in agreement with regional scholars that adaptation should be the focus. Instead, the respondents expressed that the plans should focus on both adaptation and mitigation. Further, while the literature has often highlighted the lack of resources to address climate responses in the region, the respondents did not think that the availability of resources should be used to determine how climate change responses are prioritized. Rather, they felt that the scale and magnitude of the projected impacts should be the determining factor. Although there are resource challenges in the region, it may require the redistribution of resources in the sector to areas in which are most vulnerable. In prioritizing the requisite responses, decision-makers will need to consider multi-criteria analysis to determine the best option.

National scale was viewed as the most appropriate for climate change policy formulation and implementation in the region's tourism sector. Since climate change and disaster responses in the various territories were already being pursued at the national level, it would be more cost effective given the size of the nations. However, assistance will have to be given or regional guidelines will have to be developed in the short-term for some countries. Some of the nations in the region lack the capacity to undertake a technical plan of this nature, especially since some of them are finding it challenging to develop a traditional tourism plan.

Although respondents favoured a synoptic approach for future climate change-tourism plans, an incremental or hybrid approach may be more feasible. This is because of the challenges with existing institutional and legislative arrangements and limited resource capacities for climate and tourism planning in the region. The incremental or hybrid approaches can allow for flexibility in the plan production process. Flexibility is important given the uncertainty of the phenomenon and fragility of the region's tourism sector to external influences and shocks including international carbon pricing or low carbon transition.

Respondents expressed that future climate change-tourism plans should adopt the customs of climate action plans rather than traditional tourism plans which have set plan periods. Given the dynamics of climate change, the absence of a specific plan period will allow for these types of plans to undergo continuous monitoring and revision which may be specified in the plans or enacted by legislation. In this regard, the plans can be more responsive to the prevailing conditions of the time, and progress can be tracked to highlight areas for improvement.

There was divergence of thought among most participants (and in the literature) that a tourism plan of this nature should be led by planners. The participants felt that tourism ministry officials should be the lead authors of the plans, in collaboration with planners and environmentalists. Many of the respondents who shared this view were planners. This finding suggests that there may be technical capacity challenges in developing these types of plans. It also reflects that the climate change experts in the region will need to play a greater role in plan production and disseminating information as based on the information gleaned from the surveys, these are lacking.

Chapter Seven

7 Conclusions

This Chapter highlights the salient findings of the research and my concluding remarks. The highlights are organized based on the study's three research questions. Included in the Chapter are the contributions of this study for theory, practice, and research design.

7.1 Key Highlights and Concluding Remarks

The study has assessed the quality of tourism plans in the Caribbean-SIDS region in the context of climate change. This is in direct response to the increasing acknowledgement that the Caribbean-SIDS basin is a highly dependent region (Clayton & Karagiannis, 2008; Spencer, 2019; WTTC, 2016), and has a tourism sector that is particularly susceptible to the impacts of climate change (Hoegh-Guldberg et al., 2018; Pulwarty et al., 2010). Further, the study took into consideration that there is recognition in the literature that climate change actions and policies are more likely to produce effective responses if they are integrated in sectoral plans (e.g., tourism) (Becken et al., 2020; Schmidt & Fleig, 2018).

My study was able to determine the readiness of the region's tourism sector to climate change by evaluating the publicly available Caribbean-SIDS national tourism plans that have been published since 2000. The plan quality protocol that I developed was informed by the planning, climate change and tourism literature to ensure objectivity in my evaluation of the plans. This plan quality protocol sought to provide the response for research Question One:

What are the characteristics of a high-quality climate change tourism plan?

I established that there are eight core plan quality principles for a climate change-tourism plan. These include: (a) fact base, (b) goals, (c) policies, (d) implementation, (e)

monitoring and evaluation, (f) interorganizational coordination, (g) participation, and (h) plan organization and presentation. The protocol that I developed was based on these eight core plan quality principles and included fifty-six criteria which can be replicated in other applications (see Appendix 4-1).

Participants in the study agreed that these eight plan quality principles are important for a climate change-tourism plan. While other plan quality studies in general have accorded the same importance to each plan quality principle, I was able to glean from the participants their views on the importance of each principle. Accordingly, the participants thought that for a climate change-tourism plan, implementation, monitoring and evaluation, and participation should be accorded the greatest importance among the eight core plan quality principles. I agree with the study participants on these three plan quality principles since these are the foundations upon which the plans can be successful in achieving their stated goals and policies.

The research then addresses research Question Two:

What is the quality of the tourism plans in the Caribbean-SIDS region in addressing climate change?

Overall, thirteen tourism plans were examined, and it was found that there was some evidence of climate change related actions being pursued in the region's tourism sector. In general, the region's tourism plans covered all the eight core plan quality principles. However, the coverage and materiality of climate change varied across the plans ranging from a low of 1.3 to a high of 5.6 out of 10. On average, the plans received a plan quality score of 3.7 for their coverage of climate change (see Appendix 5-1).

The findings suggest that the strategies and actions contained in the plans are inadequate to effectively manage the impending threats that climate change poses for the region's tourism sector. The findings also suggest that the potential threats of climate change in the sector may not be well understood, and this requires immediate intervention by key decision-makers. The plans were extremely weak in articulating their climate change fact base (1.6), goals (1.9) and implementation strategy (2.8). They were moderately weak in expressing climate change monitoring and evaluation (3.7), interorganizational coordination (4.2), policies (4.2) and participation (4.4).

I found that because the plans' climate change fact base was extremely weak, it affected their articulation of other plan quality principles. One of the reasons for the weak fact base was the failure of the plans' authors to include important sources of climate change information. I therefore suggest that there is a disconnect between what the literature prescribes as good practices, and the behaviours and priorities of regional practitioners in communicating relevant climate change data in the region's largest economic sector. Consequently, there is a need for innovative ways for practitioners and tourism plan authors in the region to access these sources of information. In this regard, I have made some recommendations on how this could be facilitated in Chapter Eight.

Due to the plans' inadequate climate change fact base, few plans contained adaptation goals which were vaguely expressed and aspirational in nature. In addition, none of the plans communicated any long or short-term goals with a base year for GHG emission due to the absence of a National Tourism Emission Inventory (NTEI), which is the foundation for the formulation of strategic mitigation goals. There was also a lack of reference to international decarbonization goals and the potential impacts that these goals could have on the region's

tourism sector. These major oversights in existing regional tourism plans indicate an inadequate understanding of the potential impacts of climate change and climate change policies by regional decision-makers and plan authors. In addition, despite the prominence of sustainable tourism tenets in the plans, none of the plans clearly established the link between sustainable tourism and climate change. There is recognition that for tourism to be sustainable in the region and elsewhere, it ought to be grounded in climate change responses (Scott, 2011).

Implementation, interorganizational coordination, and monitoring and evaluation require strengthening in the plans to attain the desired results for climate change related responses in the sector. Few of the plans contained an implementation section and fewer than half of these provided any timelines in this regard. Surprisingly, none of the plans indicated any coordination in the plan's preparation with the CCCCC, the region's central organization for climate change responses or any international tourism or climate change organizations.

Similarly, only one plan noted the participation of personnel from the CTO, the region's principal tourism organization or mentioned any future collaborative initiatives with them. This reflects poorly on the region's key agencies and implies that there is a breakdown of communication among these agencies in the coordination of climate change responses for the tourism sector. Without effective interorganizational coordination, this reduces the prospects of obtaining the general "buy in" on climate change responses and achieving policy coherence across various scales and subsectors of tourism.

The inadequacy of the plans to effectively outline actions related to implementation and monitoring and evaluation suggests that tourism plan-making in the region may be a futile exercise, rather than an important output of the tourism planning process. Although

eight plans had a designated section for implementation, in general, they lacked details on implementation actions. In addition, with the absence of an implementation section in the plans being common among the smaller nations, it exacerbates the resource and capacity challenges that these nations are confronted with.

The plans were reasonable in their presentation and organization of material contained in them. They were fairly user friendly and attractive since nearly majority of them included an executive summary and a table of contents. These communicative qualities aided with how the main ideas were presented and the ease with which information could be found in the plans. Although the plans scored the highest for this plan quality, it was the only criterion without specific reference to climate change. I therefore conclude that there are some weaknesses in the plans in communicating the climate change challenge and possible responses. For instance, six of the plans did not include a glossary of terms which can help enhance how the key principles in the plans are communicated effectively and clearly. Also, there were misinterpretations in the use of the terminology, “glossary of terms” as five of the plans used this term to refer to a list of acronyms. In addition, eight of the plans were lengthy - exceeding one hundred pages. Plans that are not compact can be difficult to read and thereby decrease their utility. They are more likely to be shelved.

The findings of the survey produced comparable results with my assessment of the plans. Over half of the respondents thought that their country’s tourism plan did not adequately address the challenges presented by climate change on their nation’s tourism sector. Among the reasons they provided for their assessment was that the tourism plans were not recognized in national planning legislation, no contingency planning or programs were in place for climate change in the tourism plans, and that the plans were outdated and predated

topical issues on climate change. Of note was that quite a few of the respondents were unsure whether their country's tourism plan adequately addressed climate change.

Subsequent follow ups with these respondents revealed that their uncertainty stems from the fact that they were not conversant with their country's tourism plan. This situation underscores that not enough communication and information exchanges take place between the different stakeholders who should be part of the process in developing effective climate change responses in the region's tourism sector. It also highlights the need for greater collaboration to facilitate policy integration and develop rigorous policy and monitoring outcomes. It was found that some nations had a tourism plan, but it was not available to the public. This practice of withholding a tourism plan from the public can stifle communication and citizens' engagement in the tourism planning process. Therefore, there is need for corrective action in this regard.

Despite the low plan quality scores for the plans' climate change coverage, there were few aspects of the plans and tourism practices in the region that are worth highlighting and which should be encouraged. For instance, there is evidence that some tourism officials in the region recognize the importance of integrating climate action in the tourism plans, although some regional tourism officials lag in this regard. Globally though, the integration of climate action in tourism documents is less than satisfactory as demonstrated in a few studies (see Becken et al., 2020; Santos-Lacueva & Velasco González, 2018). Therefore, while there is much ground to be covered for the Caribbean-SIDS region in integrating climate action in tourism plans, the region's performance is similar to that of the tourism sector worldwide. The challenges that the region faces in integrating climate change responses in their policy agenda for tourism are rooted in capacity shortfalls which includes financial, technical,

human, institutional, and existing archaic legislative and regulative systems as mentioned in the literature review. Policy makers in the region will need to be assertive in addressing these underlying issues through innovative action.

The region's tourism plans should be commended for their comprehensive discussion on the tourism plan making process in general. While none of the plans explicitly indicated how participation for climate change issues was included in the plans, it was found that participation was the chief factor that enhanced the quality of the latest version of Cayman's plan. Further, I found that overall, the plans paid more attention to details of this plan quality criterion than the other criteria. For example, most of the plans included a discussion on the rationale for their preparation, how stakeholders were involved in the process, the evolution of the plans, and the importance of the public's input. The plans disclosed that a variety of techniques were used to solicit the participation of several stakeholders.

Some plan quality studies covering other jurisdictions and domains have revealed that participation is among the lowest scoring plan quality principles (see Berke et al., 2012; Guyadeen et al., 2019; Jacobs, 2014; Lyles et al., 2014; Woodruff & Regan, 2019; Woodruff & Stults, 2016). This multi-stakeholder approach that has been adopted in the tourism plan making process augers well for the Caribbean-SIDS region as it can be assumed that there is mutual learning among stakeholders. The meaningful exchange of ideas among stakeholders can be regarded as a best practice. Since there is compelling evidence of participation in general tourism plan making practices, the region now needs to translate this level of participation for climate change responses in the sector. Assertive collaborative action is needed by regional tourism and climate change agencies to ensure successful climate change actions.

Though the evaluation of the plans provided good insights for research question two, the study moved beyond the descriptive analysis of the quality of the plans and then focused on research Question Three:

How can the quality of tourism plans in the region be improved to address climate change?

In responding to this question, I examined the weaknesses in the plans and reviewed some best practices as well as examined two tourism climate action plans in separate jurisdictions. These tourism climate action plans included the Whistler Community Energy and Climate Plan, Canada (2016) and the Queensland Tourism Climate Change Response Plan, Australia (2018).

While it was important to draw on best practices to aid in improving the quality of the region's tourism plans, I found that these best practices and the two tourism-climate change plans were very generic, focused on mitigation and reflected a developed world reality. Further, as mentioned in the literature review, climate change is characterized as a super wicked problem (Chaudhury et al., 2017; Lazarus, 2010; Levin et al., 2009) as it is complex and its impacts vary across jurisdictions (Boswell et al., 2019; Filho & Keenan, 2017; WEF, 2020b). In developing the recommendations, I was strategic by taking into consideration the vulnerabilities of the region (summarized in Table 2-2) and the region's many resource challenges. I also considered the alternative tourism initiatives that some nations in the region have begun to embark upon (highlighted in Table 2-5). Findings of the qualitative analysis of the survey which solicited the views of several regional stakeholders who are involved in tourism, planning, climate change and other allied disciplines, proved effective in providing

responses for this question. The responses to research question three are further discussed in the recommendations section in Chapter Eight.

Since I used a grounded theory approach, my research offers several contributions to theory, practice, and research design (summarized in Table 7-1). The use of grounded theory facilitated reflective thinking which aided me in explaining and interpreting the findings of my research as well as provided insights that could enhance plan quality methodology. Similarly, I was able to explore how different concepts and frameworks are applicable for the tourism planning and plan making practices in the Caribbean-SIDS region. By extension, I explained how some of these concepts and frameworks can be tweaked to provide guidance for the region's largest economic sector in developing concrete actions for climate change responses.

Table 7-1

Summary of Research Contributions

Contributions to Theory
<i>Rational Comprehensive Planning Theory</i>
<ul style="list-style-type: none">• Technical experts are not neutral, so they need to be politically savvy and engage politicians in developing responsive climate change-tourism plans for the region• Informal planning through the use of local and traditional knowledge should be accommodated in the planning process• Being strategic is more important than being comprehensive in developing climate change-tourism plans as there are time and resource limits• The focus on facts leads to the absence of value judgment and inequity resolution in tourism planning and plan making• Risks must be conceptualized across borders for responsive climate change-tourism plans• Institutional structures and resources of nations need to be accounted for in plan making• Rational approach to tourism plan making results in rigid technical tourism plans

- External consultants apply the same template for tourism plan making which results in similar content and structure of plans, oversight of climate change issues and affects the communicative quality of the plans

Communicative Planning Theory

- Participation throughout the entire planning process can improve implementation plan quality
- Power dynamics in Caribbean-SIDS make it challenging to transplant international best practices for climate change-tourism planning integration
- Engaging women in the collaborative process is challenging as there are limited support systems for them and gender disparities
- The right stakeholders must be engaged in the process from the initial stages. Collaborative planning can increase social capital among key stakeholders and can provide mutual benefit beyond plan preparation
- Striking a balance between economic, social, and environmental commitments in planning for climate change in the tourism sector is important
- By engaging in collaborative planning, planners are more equipped to lead the process in developing climate change-tourism plans

Incrementalism

- Certain actions contained in long-term climate change-tourism plans should be implemented incrementally since failure of large-scale implementation could result in huge losses
- Conceptualizing the future via the use of climate change-tourism scenario modelling could prove effective for tourism planning
- Assistance for climate change responses is externally controlled which limits opportunities for proactive action and capacity building

Contributions to Research Design

- Expanded the dearth in the coverage of tourism plan quality studies
- Increased the coverage of climate change-tourism scholarship from a Caribbean-SIDS context
- Offered a methodological framework for assessing and improving the quality of tourism plans in the context of climate change which can be replicated in other jurisdictions and applied in other domains
- Provided a foundation to assess the importance of each core plan quality principle
- Uncovered that researchers implicitly value some plan quality principles than others
- Expanded on the limited research that captured stakeholders' input in plan quality studies
- Researchers need to be patient and meet potential participants at their level during a pandemic

Contributions to Practice

- Diversified forms of tourism plans and tourism activities are needed
- Cross collaboration and participation can be effective in enhancing the quality of climate change-tourism plans
- Policies are needed to encourage private sector support in the region for climate financing

- SWOT analysis and skills assessment are needed to identify training needs and opportunities for capacity building for climate change-tourism planning
 - Mandates are needed to provide guidance for the plans and influence implementation
 - Planning and tourism agencies across the region need to reassess their roles to engender greater control in climate change decision-making for their respective nations and ensure that external policies do not disadvantage them
 - Integrated Coastal Zone Management (ICZM) should be an integral part of tourism planning
 - National scale is suitable for climate change-tourism plans, but smaller nations will need assistance due to resource and capacity challenges
-

7.1.1 Contributions to Planning, Tourism, and Climate Change Planning Theories

Given the nature of my research, it called for multiple and diverse theories to inform my thinking and provide different perspectives. As noted in Chapter Two, although several theories are applicable, the rational comprehensive planning, communicative planning, and incremental planning theories were apparent in my research findings. As such, I have provided a discussion on these theories based on my findings and have outlined my research contributions to these theories in the proceeding sections.

7.1.1.1 The Application of Rational Comprehensive Planning Theory in My Research

Chapter Two of this research revealed that tourism planning in the region reflected the Western approach to modernization and was influenced by the policy agenda of multi-lateral agencies. This had several implications on the region's tourism sector as these policy agendas were product and development-focused and did not consider the institutional structures and resources of the nations. There is acknowledgement that tourism planning theories were weak in providing guidance up until the 1990s (Rahmafritriaa, 2020; Hall 2008; Inskip 1991). My research indicates that the rational comprehensive planning approach was and

continues to be the approach adopted for tourism planning and plan making in the region. However, the use of the rational planning theory has several shortcomings in providing guidance for the region's tourism sector in responding to the climate change impacts and developing responsive climate change-tourism plans as outlined in the subsequent sections.

Planners Need to be Politically Savvy to Engage Politicians

Rational comprehensive planning is premised on the assumption that the use of “neutral” experts using scientific data reduces the influence of politics and bias from decision-making (Davoudi, 2018). The literature and my experience as a planning practitioner in the region have revealed that politics pervades the planning system. The ministers with responsibility for planning are elected officials, hence they are political. Based on the Town and Country Planning Act in the respective anglophone Caribbean-SIDS nations, the minister may or may not seek the advice of planners on planning decisions even after the planners would have adopted the so-called “objective” rational comprehensive approach to develop plans.

Planning decisions in the region are influenced by lobbying, political concerns, and government agendas. The advice that a planner provides through the form of technical planning reports is only one input in the decision-making process. While we have responsibility as planners to be rational, we cannot account for how decisions are made. In this regard, the rational comprehensive approach fails to acknowledge that planning decisions can be political and therefore offers no guidance on how planners such as those in the region should engage politicians in the planning process.

Davidoff (1965) in his seminal work expressed that planners should be involved in the political process advocating on behalf of the various interest groups. Brooks (2002) shared similar sentiments noting that to be effective, planners must be politically astute. Christensen (1993) noted that while planners need to be technical experts, they need to be politically savvy to be effective. Being politically savvy means that planners need to have the intelligence, shrewdness and understanding of the roles, power dynamics, the decision-making process, and knowing key actors who can influence and can be influenced by the process, as well as possess the ability to grasp a situation and think about the opportune time to convey what should be done, and when, on matters pertaining to governmental decision-making (Christensen, 1993).

Tourism planners in the region will need to draw on elements of advocacy planning to devise ways of engaging politicians in developing responsive climate change-tourism plans. These tourism planners will need to be politically savvy to get the attention of politicians and the community at large. Further, these tourism planners must ensure that the desires of the politicians do not overshadow the needs of other stakeholders.

One of the initial steps would be to build rapport with politicians to gain their trust and to demonstrate how they can benefit mutually through engagement. Another step would be to seek innovative ways to garner sustained commitment from politicians as they tend to think along a five-year term because of the political machinery. Therefore, senior members from both sides of the political divide should be included in the process so that in the event of a change in government, the plans will be implemented. This is important as the practice in the region has been to shelve the plans of the previous administration and create new plans - often a waste of scarce resources.

Local and Traditional Knowledge Should be Integrated in the Planning Process

Rational comprehensive planning makes certain assumptions that the world is predictable and that plan writers are technically adept and highly knowledgeable of the circumstances. Accordingly, this theoretical perspective marginalizes traditional knowledge, experiential learning, and intuitiveness. The rational approach therefore benefits the elites and excludes those who are affected by critical decisions during the process (Fainstein & Defilippis, 2016).

Like other developing countries, local and traditional knowledge in the Caribbean-SIDS region has been underestimated (Córdoba Vargas et al., 2020). Yet, there is recognition that the use of local and traditional knowledge has proven to be effective particularly in enhancing the management of ecosystems, natural resources, and diversity (see Markkula et al., 2019). My research has demonstrated that planners and tourism practitioners in the region lack the skills set required to address climate change issues in the region's tourism sector. However, there is a wealth of knowledge among locals who have had experience in dealing with the environment and adapting to changing circumstances that tourism specialists, planners, and climate change experts can tap into. This local knowledge base can be used to complement existing scientific data and can fill the knowledge gap in the region in developing effective climate change responses.

Further, if the issues of equity and justice are to be resolved in advancing climate change responses, then local stakeholders who have been excluded from the process should play an integral role so that they can have more autonomy in altering their circumstances. My research also reinforces the need for planning theories to provide guidance on how to accommodate informal planning in the process via the integration of traditional and local

knowledge in developing countries to create climate-change tourism plans. In incorporating informal planning via this route, however, consideration will have to be given for the forms of engagement, the circumstances for engagement, and the roles of locals in the process.

Being Strategic is More Important Than Being Comprehensive

Comprehensiveness is one of the key tenets of the rational comprehensive planning theory. Within the Caribbean-SIDS context this is difficult to achieve given time limits and resource challenges. While many of the region's tourism plans referred to conducting cost benefit analyses, these analyses did not cover several external factors which could affect the viability of the sector. For instance, there was no mention of the impacts of climate change on the sector, which is critical, given the high dependency on the sector and its vulnerability to climate change.

Planning theories therefore need to be expanded to provide directives on how, when and what to prioritize given time and resource limits so that the outcomes benefit the masses rather than aim for comprehensiveness, which might only benefit a few and not achieve the desired outcome. Tourism plan authors in the region need to shift from gathering technical economic data aimed at attracting visitors to developing solutions that can enhance the resilience of the sector. Existing sustainability concepts such as green cities, resilient cities and ecocities could provide guidance in this regard.

Given the rapidly evolving landscape and the Caribbean-SIDS context, being comprehensive is not sufficient. There are lessons to be learned from strategic planning when developing the climate change-tourism plans as well as improving the practice of planning in the region in general. Planners and decision-makers in the region need to be strategic and determine what actions to focus on in the short, medium and long-terms and the rationale for

such decisions. Conducting Strengths, Weaknesses Opportunities and Threats (SWOT) analyses as well as establishing Easily Achievable Tasks (EATS) could prove useful in this regard.

Focusing on Facts Leads to the Absence of Value Judgment and Inequity Resolution

Rational comprehensive planning is a procedural approach (Faludi, 1978) which focuses on decisions and principles that are based on logic and scientific facts (de Roo & Hillier, 2016; Weil et al., 2013). This approach provides guidance on the methods to be used when confronted with complex planning problems. Based on my evaluation, there was evidence of rationality, logic, and technicality in the plans' preparation. For instance, many of the plans noted that the inclusion of policies and programs in them were based on cost benefit analyses. The rational steps to plan-making were clearly identifiable in the region's national tourism plans. That is, problems were outlined, goals and objectives were developed, policies and alternatives were evaluated and established, and actions for implementation and monitoring and evaluation were included in the plans. However, the plans failed to account for equity and value judgements as they applied the rational approach.

I mentioned in the literature review that while the plans that were developed by UN consultants in the 1980s for Eastern-Caribbean states were technically sound, they undermined the socio-economic context of these nations and as a result, some of these plans were rejected and shelved (see Mycoo, 2017; Pugh, 2006). External consultants continue to dominate tourism plan making in the region using rational analyses. I found though that the tourism plans produced by some of these consultants were value free and technically rigid, as they applied the same template for plans they authored, which resulted in similarities in

content and structure, oversight of climate change issues, and impacted on the communicative quality of the plans.

The rational comprehensive planning theory can provide guidance in terms of what should be the minimum standard for climate change-tourism plans in the region and elsewhere as it aims for objectivity. Nevertheless, this approach is de facto rational, and so while it is strong on fact base and so-called objectivity, it is not strong on perceptions of feelings, values, and emotions. Accordingly, the region's tourism plans were weak in articulating equity and value judgements.

The plans failed to consider vulnerable groups which are key aspects of climate justice and therefore raise the questions of: "For whom are we planning?" and "What are their needs and values?" If we claim that we are planning for the people, then the rational comprehensive approach is necessary, but not sufficient for this context as these questions are not featured in this approach in its true sense.

Further, the theory does not consider other pertinent questions such as: (a) Whose values should be included in the plan? (b) How are the visions of the various stakeholders reflected in the plan? (c) What guidelines should be included for stakeholders involved in addressing climate change in the tourism sector? (d) Under what circumstances are certain policy actions feasible within a Caribbean-SIDS context? and (e) How are climate justice actions accounted for in the region? I therefore argue that aspects of communicative planning theory should be adopted by the region to improve plan quality, encourage participation in providing responses for climate change in the tourism planning process, and address climate justice issues.

Risks Must be Conceptualized Across Borders in Climate Change-Tourism Plans

While the rational comprehensive model considers possible alternatives, this theory fails to provide directives on how policy responses in other sectors and jurisdictions affect planning decisions within localities such as Caribbean-SIDS. It is also deficient in providing directives on how to account for risks across international borders when planning for sectors such as tourism whose impacts transcend beyond national borders. Although rational comprehensive planning purports to be comprehensive, it tends to be reductionistic and simplistic to deal with the complexity of all these interconnections that surrounds my research.

7.1.1.2 The Application of Communicative Planning Theory in my Research

Due to the innate socio-economic, physiographic, and built environment vulnerabilities of Caribbean-SIDS (summarized in Table 2-2), the climate change challenges that confront the region's tourism sector are similar, although there may be varying degrees of risks across nations. Plan authors in the region have focused on tourism planning at the national level as a unit of analysis. It has been acknowledged that effective climate action planning requires thinking globally (Boswell et al., 2010) and taking into consideration the impacts of international climate policies on the region's tourism sector. This can be achieved by modelling some of the ideas from communicative planning theory to assist the region's tourism sector in developing concrete actions for climate change.

Participation Must be Pursued at all Stages to Enhance Implementation Plan

Quality

Communicative planning theory acknowledges that there are competing interests which should be accounted for in the planning process to ensure mutual benefits. Engaging different stakeholders during the various stages of the process, is more likely to result in greater “buy-in” and the possibility of the plans being implemented. My findings disclosed that five of the plans that were included in the study did not have an implementation section, and for those that did have that section, there was no operational details for plan implementation.

While the plans mentioned public participation in the initial stages of the plans’ production, there was no evidence in the plans to suggest that public participation was used to develop the implementation section. Hence, this might have affected the quality of the plans in their expression of implementation actions. Since plans do not operate in a vacuum, regional organizations should provide guidance on regional and international climate change analysis to inform the tourism plans. In addition, this collaborative approach to plan making is essential in developing robust actions for implementation.

Power Dynamics Make it Challenging to Transplant International Best Practices

One of the criticisms of communicative planning theory is that it fails to acknowledge the importance of context (Healey, 2003). The theory assumes that collaborative planning operates in a liberal western democracy with fully functioning civil society institutions. On the contrary, in jurisdictions such as the Caribbean-SIDS region, power imbalances, inclusiveness, and consensus can impede the planning process (see Calderon & Westin, 2021; Fainstein, 2000; Huxley & Yiftachel, 2000).

Therefore, when regional organizations provide guidance and policy directives, it is important that they do not just transplant best practices and recommendations from international climate change and tourism organizations, but rather consider these recommendations for a Caribbean-SIDS context. Additionally, it is important that collaborative efforts have regard for institutional and agency considerations such as institutional norms, values, resources, and relationships (Calderon & Westin, 2021). In this regard, it may be more pragmatic to develop tailor-made strategies for individual Caribbean-SIDS depending on the circumstances.

Limited Support Systems for Women Create Challenges for Them to Engage

My findings challenge the communicative planning theory as it assumes that collaboration is a seamless process. In the region and elsewhere, women are forced to prioritize to engage. My experience has also been that women have often expressed their willingness to participate but there are no support systems in the planning process for them as they struggle to balance family, household chores, limited resources, and work commitments. Women make up most of the tourism workforce globally but tend to be in the lowest paid and status jobs (UNWTO, 2021). Studies have found that climate change vulnerabilities exacerbate existing gender disparities among women (Abebe, 2014; Eastin, 2018). Given these situations, it is imperative that women should be an integral part of the process in developing strategies in the tourism sector to address climate change. The region's tourism sector must consider how to meaningfully engage them more in the process and provide adequate support systems such as childcare assistance and time off from work.

The Right Stakeholders Must be Engaged in the Process from the Initial Stages

Critically important, is that the right stakeholders are involved in the initial phases of the process, which was one of the challenges that the collaborative approach to planning faced in its early manifestation. While the plans expressed that several stakeholders and a variety of participatory techniques were included in the process, key regional stakeholders such as personnel from the CCCCC, CDEMA, CTO and the region's universities were absent in the plans' production. The planners who were included in my study recommended that tourism practitioners should play the lead role in the production of climate change-tourism plans for the region.

I mentioned previously that several tourism practitioners had indicated that they could not provide me with any valuable input because of their unfamiliarity with climate change issues. Having tourism practitioners lead the production of climate change-tourism plans in the region is a missed opportunity for planners to contribute positively and significantly to the effort to manage impacts of climate change (Bassett & Shandas, 2010). Planners are well equipped to provide insights on balancing the demands that tourism places on land and coastal development and can help to minimize the potential impacts. Incorporating some of the principles of collaborative planning in the region's response to climate change action in the tourism sector could enhance the dynamic interaction of all stakeholders. Further, this could permit the development of increased social capital within the region among key stakeholders which could provide mutual benefits beyond plan preparation.

Strike a Balance Between Economic, Social, and Environmental Commitments

Despite the region's tourism plans noting that they were guided by sustainable tenets, they were economic in their focus and were not comprehensive in their articulation of

environmental and social issues. Nor were the plans able to communicate the integral relationship that exists between sustainable tourism and climate change. Among the reasons for this lack of integration could be that the concept of sustainable tourism is difficult to implement (Rahmafritria et al., 2020). Additionally, regional decision-makers are often forced to deal with more pressing priorities such as the provision of basic infrastructure and services, housing, jobs as well as crime and food security (ECLAC, 2017; Mycoo & Donovan, 2017). Planning theories are needed to guide tourism plan makers about how to strike a balance in achieving sustainability and responding to climate change in developing countries, given that their main economic base is threatened by these said factors. Again, strategic planning could provide guidance in this regard.

7.1.1.3 The Application of Incrementalism in my Research

There were influences of incrementalism in the region's tourism planning and plan making processes. Incrementalism as posited by Lindblom (1959) acknowledges that planners are forced to make decisions despite resource challenges, limited available information, and time limits. Implementing climate change priorities in the region's tourism sector is indeed difficult due to limited climate relevant data and human, financial, institutional, and technology challenges.

Accordingly, assistance for climate change responses in the region are externally controlled (Kelman, 2010) and usually provided when there is a catastrophe. This limits the region in engaging in proactive climate action and reduces opportunities for capacity building and empowerment. Hence, decisions are made incrementally. During a crisis however, incrementalism will be less useful for the region's tourism sector as decision-makers seek to restore conditions to their previous state.

Some Actions in Climate Change-Tourism Plans Should be Implemented

Incrementally

Given that there are aspects of the tourism sector for which climate change information is not available for analysis at the national level, and that climate change presents uncertainties, consideration must be given for incremental action. Under ideal conditions, the rational comprehensive planning theory would advocate certain standards that a climate change-tourism plan should achieve. These standards can only be achieved if they are broken down incrementally and pragmatically. This is because the failure of large-scale project and program implementation could be too costly, as the nations are resource challenged.

Incrementalism can allow for adjustments to be made in response to changing existing conditions. Regardless, policy and decision-makers need to be strategic in their use of incrementalism. For instance, in developing long-term plans and actions, they should be updated and reviewed incrementally with set timelines.

Use Climate Change-Tourism Scenario Modelling to Conceptualize the Future

Another important aspect that my research has exposed is that existing planning theories need to provide guidance on how to conceptualize the future particularly in planning for climate change in SIDS. Admittedly, plans in the region in general have been reactive due to resource and capacity challenges as well as cultural (i.e., political, legislative, and administrative) norms. Addressing climate change responses in Caribbean-SIDS tourism sector cannot continue along a reactive trajectory given the dynamics of the phenomenon and the significant implications it has on the region's largest economic sector. Climate change-tourism scenario models are needed for these nation states to effectively plan and enhance

their adaptive capacities. In developing these climate change-tourism scenario models, scenario planning and contingency planning could provide guidance.

7.1.2 Contributions to Research Design

The study provided a suitable context for tourism planning research in the Caribbean-SIDS region. It laid the foundation for later exploring how current practices and tourism plans can be improved. Through the various research techniques used, the research illuminated the causes and effects that certain activities and their absence, such as planning instruments / mechanisms or government strategies and policies, have on tourism planning and tourism practices in this geographic locality.

7.1.2.1 Novel Research on Climate Change-Tourism Plan Quality in Caribbean-SIDS

This research was the first of its kind to explore the tourism plan making practices from a Caribbean-SIDS context. By extension, the study added to the dearth of plan quality studies covering the Caribbean-SIDS region since apart from Jacobs's (2014) study, which explored hazard mitigation in the region, plan quality studies mainly focus on the United States, Canada, New Zealand, Australia and some European jurisdictions (Berke & Godschalk, 2009; Lyles & Stevens, 2014). In addition, the study contributed to the plan quality studies in the tourism domain. With the exception of Eagles et al. (2014) who examined park management in Ontario, Canada there has been very little prior work in the area of plan quality in the tourism sector. These scholars focused on the policy content of tourism plans. My study, however, was comprehensive in its articulation of eight plan quality principles as discussed in Chapter Four.

This research was also the first of its kind in the plan quality field to simultaneously assess two plan quality domains - tourism and climate change. Through this approach, my research was able to uncover that while the tourism plans in the region adhered to general plan quality principles, they were lacking in their coverage of climate change.

7.1.2.2 Examination of Plan Quality Across Several Countries

Most studies on plan quality in the climate change domain focus on a single country or local jurisdiction as a unit of analysis (see Baker et al., 2012; Baynham & Stevens, 2014; Guyadeen et al., 2019; Tang et al., 2010). My research assessed the quality of national tourism plans across thirteen nations in the Caribbean-SIDS region. This allowed for generalizations of plan quality findings across countries and permitted comparisons among these countries.

7.1.2.3 Methodological Framework for Assessing and Improving the Quality of Plans

This research has offered a methodological framework for assessing and improving the quality of tourism plans in the context of climate change. The TCCPQ framework is a structured approach which can also be used by tourism plan developers and reviewers to track progress made in climate change responses in the region. The protocol that I designed contained several criteria which can be used as guides for the formulation of future tourism plans. These criteria can be modified and can be applied in other contexts to suit other needs in other domains such as transportation, agriculture, ecosystems services, water, and energy sectors that are affected by climate change.

My study found that while it is important to have a set of standards for climate change-tourism plans, context is important. Therefore, theories on plan quality need to factor minimum standards in evaluation methods, rather than recommend a broad array of abstract criteria for plans across different domains.

7.1.2.4 Researchers Implicitly Favour Some Core Plan Quality Principles Than Others

Previous studies often assign each core plan quality principle the same level of importance and have provided no guidance with regard to a departure from this norm. I submit that the level of importance of each plan quality principle varies depending on the purpose of the plan, the purpose of the evaluation exercise, and the researcher. This was made more apparent to me when I examined previous plan quality studies and found that the number of core plan quality principles used, and the number of criteria used for each principle varied across protocols. This suggests that researchers implicitly value some core principles than others in their research design.

7.1.2.5 Stakeholders' Perspective Can Provide Valuable Insights for Plan Quality Studies

With the exception of Guyadeen's (2018) research, plan quality studies have excluded the perspectives of stakeholders in terms of the importance that they accord to various core plan quality principles. My study expanded on Guyadeen's research which captured the views of planning technocrats. By including the perspectives of various stakeholders involved in climate change and tourism planning in the region, I found that they valued implementation, monitoring and evaluation, and participation more than the other plan

quality principles. My finding suggests that stakeholders in the region have moved beyond valuing the mundane initial phases of tourism planning and plan making, and instead, focus on the phases in the process that can provide the desired outcome. More plan quality studies are needed to capture the views of various stakeholders in terms of how they value the core plan quality principles. It also highlights that the eight existing plan quality principles may not be applicable for all contexts.

7.1.2.6 Qualitative Methods can Provide Some Cushioning for Conducting Research During a Pandemic

COVID-19 is undoubtedly unprecedented and tragic, and it has impacted or curtailed research activities worldwide. This has resulted in the shifting of the attention of all stakeholders. Phase One of my research began prior to the COVID-19 pandemic which involved the content analysis of the plans. However, Phase Two of the research was adversely affected by COVID-19 as it involved the participation of various tourism, planning, disaster managers, and climate change specialists in the region. As I explained in Chapter Three, my research design had to be modified. In particular, the focus of tourism specialists, planners and disaster managers in the region had shifted to deal with the COVID-19 pandemic. Many of these potential participants were unavailable to participate in my study even though they had expressed their willingness to do so. This also affected options for data collection techniques as I had initially wanted to engage different participants in interviews, focus group discussions and the Delphi method. It was difficult to solicit the participation of these practitioners in the region for these techniques. Fortunately, my research adopted a qualitative approach which offered some flexibility in the use of other data collection methods and some cushioning to complete the study.

7.1.2.7 Researchers Need to Meet Potential Participants at Their Level During a Pandemic

The COVID-19 pandemic has revealed certain realities with the digital divide in the Caribbean-SIDS region. During my conversations with some potential participants, they expressed that since their organizations were closed due to national COVID-19 restrictions, they were working from home; however, they had limited access to the Internet. In other instances, some of the potential participants expressed that they were apprehensive in participating in an online environment for fear of online security reasons. This is understandable, as while I was able to assure them that the information provided to me would have remained anonymous, there is always a risk that when information is transmitted via the Internet, it could be intercepted by potential hackers.

Some potential participants stated that they could not participate because of the novelty of an online setting for them. Among the main take-aways from doing research during a pandemic is that while we as researchers would have developed certain milestones to ensure the timely completion of our dissertation, we must be patient and meet each potential participant at their level. We must also be more cognizant of our potential participants' circumstances. While some potential participants can adapt easily, others need assistance and additional time to weave through the changes.

7.1.3 Contributions to Practice

There are several contributions to tourism planning and planning in general in responding to climate change impacts as discussed in the subsequent sections. In some instances, these contributions to practice that my research has highlighted are not only applicable for a Caribbean-SIDS context but are also applicable globally.

7.1.3.1 Different Forms of Tourism Plans and Tourism Activities are Needed

Different forms of tourism plans are needed that can capture the spatial distribution of future tourism activities to mitigate against climate change impacts, hence the need for climate change-tourism plans. Strategic spatial planning will be essential to address issues pertinent to the vulnerability of coastal areas and other tourism destinations, and the capacity of these sites to accommodate further expansion and reduce coastal squeeze. The scale and type of tourism for existing and future destination sites should be assessed based on existing vulnerabilities and the pace at which tourism can be accommodated. Included in this approach should be the potential for more diversified forms of tourism activities such as those mentioned in Table 2-5. These alternative forms of tourism should be assessed in terms of type and location to alleviate the pressure on existing sites and reduce their vulnerabilities.

7.1.3.2 Cross Collaboration can Enhance the Quality of Climate Change-Tourism Plans

Cross collaboration is needed between key tourism stakeholders in the development, management, and marketing of tourism sites in the region. The inclusion of multiple stakeholders in addressing climate change in the tourist sector provides a platform for transparency, trust, shared ownership of the process, and can aid in improving adaptive capacities and preventing maladaptation (Bugler & Palin, 2017; Jopp et al., 2010).

Responses to climate change require the integration of different tiers of interconnectivity worldwide (Allen et al., 2018) since it has been established in the literature that climate change is a super wicked planning problem. Employing participatory planning approaches will be necessary to evaluate the problems and opportunities that could arise from climate change impacts within the sector. The tourism sector in the region will need to

develop cross collaboration projects with other sectors and set targets that relate to climate change impacts which are based on the latest IPCC's findings. With the gains made in tourism, planners in the region will have to provide directives on how the tourism sector can remain viable and attractive given the challenges confronted by climate change and the appended COVID-19 pandemic.

Although there was evidence of participation in the tourism planning and plan making processes, it was apparent that participation was not consistent during the various phases which may have impacted on the plans' implementation quality. The literature has often stressed the importance of participation in the planning process in general and have highlighted the benefits it can provide.

This research has demonstrated that participation is essential for the successful integration of climate action in tourism planning as reflected in the final output of the climate change coverage in Cayman's tourism plan. Participation is also important to the tourism planning process given that the policy agenda for tourism planning is subject to change based on the fragility of the sector. Climate change presents various uncertainties, and its impacts vary according to context. While tourism planning has often adopted a rational comprehensive approach, there is need to acknowledge and incorporate values and perceptions in the process in dealing with climate change and it is through participation that this can be achieved.

7.1.3.3 Policies are Needed to Encourage Private Sector Support

There is need for policies that encourage private sector investment in new tourism areas and products as well as innovative ways to support climate change response financing in the sector. These climate financing activities should be geared towards providing incentives for

tourism business owners to engage in retrofitting for climate change and to reduce water consumption and energy use in the sector at all levels of the tourism value chain.

Additionally, climate change response financing should entail obtaining funds to enhance the existing human and institutional deficiencies in addressing climate change in the region.

7.1.3.4 Conduct SWOT Analysis and Skills Assessment to Identify Training Needs

Planners are better able to inform decision-makers on the various modalities and options for climate action planning in the tourism sector and their implications than other practitioners. The research has highlighted that there are capacity deficiencies in the region to develop climate change-tourism plans. Further, planners have not played an active role in assisting the tourism sector to develop effective climate change responses as reflected in the quality of the region's tourism plans. While tourism practitioners can provide statistical forecasts, marketing advice, and economic modelling for tourism, there is a need to balance the competing demands of tourism activities with its supply in the context of climate change. This balance can only be achieved through sound planning practices. Chapter Two of this research has highlighted that there are several challenges confronting the region's central planning system including legislative and institutional arrangements, resource constraints, and political interference which have made it difficult for planners to effectively perform their tasks. An initial step would be to conduct a SWOT analysis and a skills assessment to identify training needs and opportunities for capacity building for climate change-tourism planning.

7.1.3.5 Develop Mandates to Provide Guidance for Plans and Influence

Implementation

Since there are few guidance on the range of strategies in the region, clear mandates are needed to formulate climate change-tourism action plans that are responsive to the Caribbean-SIDS context. The revised Caribbean Sustainable Tourism Policy and Development Framework document (see CTO & NDRM, 2020) can provide guidance in this regard. Similarly, existing land use and related planning policies should be examined with a view to provide guidance for planners in developing climate change responses for the tourism sector.

7.1.3.6 External Climate Change Policies Should Not Disadvantage the Region

Since climate change is global and cross cutting in nature, the implementation of policies and strategies in the region's tourism sector should be linked to the 2030 Agenda, the Paris Agreement and other climate change response mechanisms, to build resilience and adaptive capacity and to avoid possible gaps and overlaps.

These strategies and activities must be aligned with the economic, social, and environmental well-being of Caribbean-SIDS destinations. More lobbying is needed to ensure these international climate change policies do not disadvantage the region and that there is scope for equity in the tourism planning process. In view of this, national planning and tourism agencies across the region will need to reassess their roles to engender greater control in climate change decision-making for their respective nations.

7.1.3.7 ICZM Should be an Integral Part of Tourism Planning

There will be need for Integrated Coastal Zone Management (ICZM) to be an essential part of spatial planning for tourism rather than to be treated as a separate approach for coastal destinations. This will require the establishment of coastal governance systems to monitor and manage tourism operations in these areas to ensure the reduction of potential risks. Further, the approach should focus on deliberate transformations in the sector whereby individual destination communities and key tourism stakeholders are empowered to make decisions to seek alternative pathways (Armitage et al., 2017).

7.1.3.8 National Scale is Suitable for Climate Change-Tourism Plans

The national scale is most favoured for climate change-tourism plans. Existing policies on climate change and disasters are already implemented at the national scale, which can make policy integration more feasible. Given the resource and capacity issues especially for the smaller nations, planning at this scale may not be feasible in the short run and so these nations will have to seek the assistance of regional bodies such as the CTO, CCCCC, CDEMA, and the Caribbean Planners' Association.

7.2 Implications of Key Findings and Conclusions

My research has uncovered several findings and hence, I made several conclusions. These findings and conclusions present various implications for the region in general and its tourism sector (Table 7-2). As depicted in the table, assertive action is required to enhance the region's and its tourism sector's readiness to climate change impacts.

Table 7-2*Summary of Key Findings and Conclusions and their Implications*

Summary of Key Findings/Conclusions	Implications
Climate change efforts not fully informed	More exposure to climate change vulnerability Formulation of strategies and actions that are inadequate to effectively manage threats
Absence of mandates/legislative framework to guide climate change action in the tourism sector	Disjointed approach to planning reduces tourism sector's readiness to climate change impacts Tourism planning will continue in haphazard manner and viewed as separate from town planning Difficult to inform theory development for climate change-tourism planning from SIDS's perspective No specific requirements for contents of plans → production of unresponsive plans to climate change
Lack of rigorous analysis for climate change assessment and vulnerability risks in the sector	Impedes the ability to identify priority areas and where to direct limited resources
Weak climate change goals	Results in the lack of clarity on policy formulation and makes it difficult to monitor progress
Absence of implementation section	Plans' propensity to become "paper" documents that are not executed Fulfillment of a planning ritual versus change agent in the process
Absence of timelines and resource allocation for climate change	Reflects lack of commitment to bring goals to fruition and possibility of plans being shelved
Lack of coordination	Reduces the prospects of "buy-in" on climate change responses Hinders policy coherence across various scales and subsectors of tourism Impedes rigorous monitoring
Use of motivational policy language/ lack of specific climate change subsector policies	Policies play advisory roles versus mechanisms to achieve the desired results

Chapter Eight

8 Recommendations

This Chapter offers recommendations that are intended to improve the quality of tourism plans in the Caribbean-SIDS region. These recommendations are presented with reference to the eight criteria used in the plan quality evaluation. At the end of the Chapter, I provide my reflections on my research experience. I also offer insights for future scholars who might be engaged in research of a similar nature.

8.1 Fact Base

The weak climate change fact base of the region's tourism plans inhibited effective data analysis. This affected how climate change policies and goals were formulated in the plans and by extension, the guidelines for implementation. The following are recommended to improve the fact base of the plans.

There needs to be better knowledge mobilization of climate science information. The CTO and the CCCCC should collaborate and develop a climate change-tourism database that plan authors and decision-makers in the region can access. At a minimum, the region's tourism plans should: (a) express how climate change and policies relating to climate change is relevant and will impact on tourism nationally; (b) state why these are important and what will be done; (c) frame climate change as an issue facing the region's tourism sector; (d) highlight the impacts of climate change on tourism generally and the implications for the region; and (e) specify areas in which climate change will have a direct impact on national tourism such as damage to tourism infrastructure, reduced tourist arrivals, reduction in GDP

among others. To be decision relevant, information is needed on the impacts and implication of climate change to conduct competition analysis for the sector.

A useful approach could be to adopt, where practical, the framework developed by Scott et al. (2012) on climate change impact pathways on the tourism sector. These impacts and implications should be outlined as follows: (a) direct impacts from changing climate regimes, (b) indirect environmental change and cultural heritage impacts, (c) indirect impacts associated with societal change, and (d) impacts induced by climate change mitigation and adaptation in other sectors. The plans could draw on the information cited in several IPCC's reports as well as several scholarly works that have been published on climate change in SIDS.

8.1.1 Legislative Context for Climate Change Issues

At a minimum, the plans should make references to major international, regional, and national legislative frameworks on climate change responses particularly for mitigation and air travel. This is important as a means to inform policy and ensure that the region's tourism responses to climate change are guided by leading practices. An inventory of all the legislation in the region that concern climate change and tourism should be conducted to identify gaps and avoid duplication in developing policy responses for climate change in the region's tourism sector. The CCCCC should lead this initiative; however, this should be a collaborative effort among the various stakeholders in the region. The establishment of the legislative context can assist in ensuring greater commitment among tourism and climate change stakeholders. Policy and decision-makers in the region can use this as a foundation to develop mandates, which some studies have found to be effective in improving the quality of plans (see Baynham & Stevens, 2014; Bunnell & Jepson, 2011; Tang et al., 2010).

8.1.2 Tourism Land Use and Supply

The plans should mention how climate change affects tourism-oriented land use and supply, and how the sector intends to address these issues. Ideally, specific sites for future tourism development should be identified and these should be accompanied by maps and other illustrations in the plans.

8.1.3 Vulnerability Assessments

Vulnerability assessments should be conducted to highlight areas, demographic population or aspects of the tourism sector which will be disproportionately affected. These assessments should include key indicators such as access to resources, human, and institutional capacities in the tourism sector to address climate change, and the extent to which existing tourism infrastructure is resilient to climate change impacts.

8.1.4 Risk Opportunity Framework

The plans should include a risk opportunity framework to examine how the sector will incorporate low-carbon technologies, climate sensitive building designs, and other climate change initiatives. This framework should also include the feasibility for collaboration with regional neighbours.

8.1.5 Designated Funding Source to Enhance Fact Base Research

At a minimum, the plans should identify possible sources of funding to support research activities such as vulnerability assessments, emission inventory, among others to improve the fact base of the plans. The CCCCC, CDEMA, CTO, and regional governments should collaborate to access funding sources such as the Adaptation Fund, the Green Climate

Funds or other climate change funds for training and development of tourism stakeholders to inform climate change-tourism plan production.

8.2 Goals

It was found that the few climate change goals in the region's tourism plans were not clear and practical and therefore would not be effective in achieving real change. Further, the corresponding objectives and actions were not aligned with stated goals. There was a bias towards adaptation goals in the plans. However, these goals were aspirational in nature and did not indicate which climate change risks were being targeted, neither was any indicator identified to conduct future assessment of whether these goals are fulfilled. The following is recommended to improve the goals section of the plans.

8.2.1 Develop SMART Goals

As a basic step, adaptation and mitigation goals outlined in the plans should reflect the universal traits of effective and implementable goals: (a) specific, (b) measurable, (c) action oriented, (d) realistic, and (e) time-based. The plans should clarify the specific climate change risks that each goal addresses and the proposed indicators to measure the success of the goals in the future. The lengthy list of goals in the plans should be reduced as this discourages actions and makes it difficult to determine priority areas.

8.2.2 Outline Specific Adaptation Goals

The plans should contain goals regarding how vulnerability in the sector will be reduced. Since there are several adaptation options for the tourism sector, the adaptation goals in the plans should be categorized as: (a) technical, (b) managerial, (c) policy, (d)

research, (e) educational, and (f) behavioural (see UNWTO et al., 2008). The use of these categories could ensure coverage and avoid overlaps in outlining adaptation goals in the plans.

8.2.3 Mitigation Goals

As an initial step, the plans should include long and short-term mitigation goals with a base year. These goals should be realistic based on available resources and current operations for GHG reduction. The plans should outline the implications of low carbon transitioning for their tourism sector and the policy responses for these. Ideally, mitigation goals should be reported on during the CTO's annual conference to track progress in this regard.

8.2.4 Political Commitments

In the long-term, there will be need for political commitments for climate change goals particularly in respect of GHG emission reduction. Without political commitments, it will be difficult for the region's tourism sector to achieve its reduction targets and successfully implement the actions contained in the plans (Bassett & Shandas, 2010).

8.3 Policies

Policy language in the plans should be strengthened by using assertive language such as “will,” “shall,” “require,” and “must” to encourage commitment for climate change actions. There should at least be a communication policy in the plans that targets behavioural changes, education, or participation for climate issues among tourism stakeholders.

8.3.1 Subsector Policies

Policies on waste management, water consumption, transportation, energy, hazard reduction, and food security that are specific to climate change should be included in the plans. These should be provided as a designated section in the plans rather than being scattered throughout the plans as is current practice.

8.4 Implementation

The plans should have a designated section for plan implementation and should identify areas for priority climate-related action. The plans should specify what approach is used to identify priority areas for implementation such as multi-criteria analysis, available funding, potential benefit, applicability, cost etc. The implementation section of the plans should assign responsibility of specific tasks to key stakeholders and actors, establish major timelines, indicate resource allocation priorities, identify funding sources, and provide operational details for climate action.

8.5 Monitoring and Evaluation

These plans need to be monitored and evaluated on a regular basis. A plan monitoring and evaluation committee should be established which should comprise a wide cross section of tourism and climate change stakeholders, planners, and disaster managers. The plan evaluation committee should monitor the implementation progress of the plans and ensure that the plan is kept current. Indicators that measure progress should be developed. Timelines for the evaluation and revision of the plans should be established as well as major milestones.

8.6 Interorganizational Coordination

The study has uncovered that there is a lack of coordination among key stakeholders who should be involved in climate responses for the region's tourism sector. It is necessary for key stakeholders to collaborate more effectively to develop informed-policies and ensure that policies on climate change and tourism are integrated seamlessly. My follow-up discussions with a few of the participants indicate that while there is some form of collaboration among various stakeholders on general tourism issues, this is not necessarily so on climate change related matters because some tourism sector actors do not think that climate change is within their purview. Further, the quality of existing tourism plans limits opportunities for organizations to contribute effectively to developing climate change responses. Moreover, some of the tourism plans in the region are not publicly available. All the tourism plans in the region should be made public or an executive summary should be available for the public's viewing to enhance coordination among key stakeholders.

As an initial step, the tourism ministry/agency within the respective nations could take the lead and develop a database of all institutions that are linked to tourism and climate change. This database can therefore be used to produce an institutional analysis. Included in the institutional analysis would be an assessment of the research, resource, and development capacities of the institutions identified; how these institutions could contribute to climate change responses in the tourism sector; possible avenues for networking among these institutions on proposed climate actions; as well as the limitations of these institutions. Some useful frameworks that the region's tourism ministries/ agencies could adopt when undertaking the institutional stakeholder analysis include: (a) importance/ influence matrix, (b) conflict/ complementary matrix, and (c) actor linkage matrix (see Matsuert, 2002). Using

the information gathered from the institutional stakeholder analysis, the nation’s tourism ministries can begin to populate the matrix that I have proposed in Table 8-1.

Table 8-1
Matrix for Interorganizational Coordination on Climate Change-Tourism Plans

Institutions/Agency	Roles	Interests	Influence Scale of 1-10)	Resource capacities	Possible contribution (s) for Climate change responses	Possible capacity limitations for climate change responses	Possible avenues for collaboration with other stakeholders
NATIONAL							
Tourism Ministries /Agencies							
Meteorological Office							
National Planning Agency							
Disaster Management Agency							
Environment/Disaster Agency							
National Climate Change Agency							
Professional Planning Association							
National Water Agency							
National Transportation Agency							
Tourism Private Sector							
Tertiary Institutions							
REGIONAL							
CDEMA							
CCCCC							
CTO							
CHTA							
CPA							
INTERNATIONAL							
WTTC							

Institutions/Agency	Roles	Interests	Influence Scale of 1-10)	Resource capacities	Possible contribution (s) for Climate change responses	Possible capacity limitations for climate change responses	Possible avenues for collaboration with other stakeholders
UNWTO							
UNFCCC							
International Professional Planning Bodies							

8.7 Participation

Despite the region’s tourism plans paying more attention to details to participation than other plan quality principles, it was not adequately documented. Accordingly, the following recommendations are offered to improve the participation element in these plans.

8.7.1 Establishment of Formal Public Participation Program

At a minimum, the plans should outline a formal program of action for public participation. This should include the level of resources committed, designated funding for climate change-tourism participation, assigned personnel to manage the participation process, venues (both physical and online) for participation, and training facilitators to enhance capacity building and empowering stakeholders.

Ideally, distinct stages of participation such as pre-planning, post planning, and continuous participation should be included in the plans. Target groups for participation should be identified and the contribution of each stakeholder to the process should be noted. The different participation techniques to be used should be outlined in the plans to make the process inclusive and cater to the disadvantage groups.

8.8 Plan Organization and Presentation

Though the plans were fairly user friendly and organized, there were certain elements in the plans that needed improvement as noted below.

- The executive summary in the plans should be concise and highlight the key concepts of the plans.
- A glossary of terms should be included in the plans which should contain the meaning of key terms used.
- The graphical content should be improved especially with regard to including the spatial distribution of tourism sites.
- Appropriate illustrations should be provided where possible and should not only be limited to charts and tables as was the case with some of the plans.
- The plans should be limited to a maximum of 100 pages as many of the plans were too bulky or produced in several volumes which reduced the prospects of a unifying storyline in the plans and their utility by stakeholders.

8.9 Recommendations for Tourism Planning Practice and Process in the Face of COVID-19 and Climate Change

Tourism officials have been forced to redirect funds that could have been used to advance climate change responses in the region's tourism sector. Policy and decision-makers must strategize to discuss how goals and research for tourism should be prioritized. Although it is uncertain the full impacts that the pandemic will have on the sector and the form of tourism that will ensue post COVID-19, it is certain, however, that this pandemic (and successive pandemics) will continue to reshape the sector in the future (Scott, 2021). From an

optimistic stance, with advancement in science and the availability of effective vaccines, it is possible to imagine a post COVID-19 recovery scenario within the next three years.

However, the future is dimmer for climate change as the impacts have been predicted to last beyond generations (Scott, 2021). Indeed, 71 % of persons globally who were part of a recent Ipsos poll acknowledged the seriousness and urgency with which to treat climate change as similar to the threat posed by COVID-19 (Ipsos, 2020).

8.9.1 Recommendations on How Theories Can Guide Tourism Planning and Plan Making in the Post COVID-19 Era in Caribbean-SIDS and Elsewhere

Among the poignant questions that now confront tourism planners and planners generally are, “How do we plan in the aftermath of COVID-19?” and “What kinds of theories might inform our planning?” As I noted previously, there is no single theory that can be used to address complex issues; these theories are not mutually exclusive in practice. Rather, it is useful to select a variety of theories that can provide different perspectives in specific contexts. For instance, rational comprehensive planning can provide the database for the foundation of trends and patterns, but we can use other theories to get a sense of what is going on, such as communicative planning and collaborative planning theories. The application of these theories is all context and situation-based as we examine the nature of the challenge(s) to inform decision-making.

With the contraction of the economy and the heavy fallout of the tourism sector from COVID-19 in the Caribbean-SIDS basin, climate change remains a serious threat. Regional decision-makers will need to seek alternative forms of tourism such as virtual tourism. With the fast-moving landscape, ten-year plans and beyond will be ineffective if they are not

updated periodically. There will always be turbulence and change from pandemics and external forces affecting the sector. The magnitude of these change forces and their frequency might also become greater.

Future tourism plans will have to be quite adaptive and nimble. The focus therefore should not only be on the core plan qualities of plans, but also the planning and plan making processes. The form of planning that is required to adapt to these changes will have to be different from what we are currently doing.

While many of the challenges presented by climate change will be shared across the region, every context will be slightly unique. Planning practice will have to draw from collaborative, equity, strategic, adaptive, and contingency forms of planning. Decision-makers and planners will need to address several questions such as:

- a) What kind of approaches will the country need to be resilient in the face of climate change and economic upheaval?
- b) How can we get there?
- c) Where do we begin?
- d) What kind of resources are needed?
- e) How can we make the necessary changes based on the current structure of the planning system and the culture of the society?

One of the key initial steps would be to engage in capacity building. The University of Technology, Jamaica and the University of the West Indies, through their respective planning and tourism programs in collaboration with the CTO, CCCCC and CDEMA, could develop professional development courses to fill the capacity gaps in the region. Traditional and local

knowledge would need to be given more importance in developing responsive actions for the tourism sector.

More innovative participative approaches will be needed that take into account engagement and inclusiveness goals when preparing and implementing this new generation of tourism plans. However, we must be mindful of the workload of planners in the region who are already overburdened and will be tasked with the new responsibility of developing creative ways to make the consultation process more inclusive and meaningful.

The static planning model that we have been practising in the Caribbean to fulfil legislative and funding reasons cannot continue. We must plan for resilience and adaptation to changing circumstances across various scales and sectors. This would also involve developing communities that can anticipate and adapt to change.

8.10 Future Research Directions

This study is the first of its kind to examine tourism plan quality in the context of climate change. It should be regarded as an initial step in the exploration of the topic. The study was limited to the Caribbean-SIDS region and therefore, future research is needed to examine tourism plan quality globally through a climate change lens so that more statistical conclusions can be made. In addition, future studies are needed to examine what factors affect tourism plan quality and how these impact on implementation. Pertinent information is needed to determine whether the publication of climate change-tourism plans can lead to greater responses and actions from the tourism sector.

Since my study only captured a specific period (i.e., 2000 to 2020), there is need for longitudinal studies to ascertain whether the quality of the region's tourism plans has improved. Further studies could provide insights on their coverage, scope, and materiality of

climate change over time, especially since many of the nations in the region are now in the process of preparing a new tourism plan. There is recognition that a high-quality plan does not necessarily lead to concrete action (Tang et al., 2010). It would be interesting therefore for studies to evaluate whether having a tourism plan affects a nation's and its tourism sector's preparedness for climate change responses and implementation strategies. These studies could be extended to include the factors or mechanisms that drive climate responses in the tourism sector, and how effective these factors are to obtain the desired results.

Finally, my findings indicate that the region's tourism plans were strongest on the participation plan quality principle in general which contradicts previous plan quality studies in various domains. Perhaps future research could examine whether participation is a determining factor for plan quality.

8.11 Reflections on the Research Process

The tedious nature of research requires dedication. As such, I developed strategies to maintain my productivity level as there were days when my output waned. Among these strategies, was the establishment of milestones with assigned timelines to provide guidance for the research process, and to ensure that the dissertation was completed in a reasonable time.

I realized that research is a structured learning process, and occasionally, changes are necessary to produce the best results since new challenges can arise. With that said, the COVID-19 pandemic has highlighted the need for flexibility in the research process. In addition, the pandemic has given me a greater appreciation for participants' input and the invaluable contribution they make in the research process, particularly the new insights on complex planning issues that I acquired.

In doing the research, I also found that it was useful to step away from it for a while and then re-evaluate the national tourism plans in the region. This strategy assisted in enhancing the reliability of the findings and reducing the potential for bias in my assessment of the plans since the results obtained from the re-evaluation were similar to my previous evaluation. From now on, this strategy will become a staple of my future research endeavours.

My research has highlighted that tourism plays a significant role in the economy of the region, and it is a conduit for achieving the United Nations Sustainable Development Goals (SDG) 2030 Agenda. However, climate change and the COVID-19 pandemic have reiterated the need for resilience in the sector. Therefore, future tourism plans need to be responsive by articulating strategies that are feasible and sensitive to the Caribbean-SIDS context.

The use of consultants in the plan making process in the region has resulted in rigid technical plans that are economic in their focus, and have overlooked the implications of climate change and other challenges that confront the sector. Decision-makers will need to ensure that the Terms of Reference for future tourism plans capture these challenges and are adequately addressed in the plans' final output. Further, it was evident that the implications of climate change on the region and its tourism sector are not fully understood by some decision-makers and practitioners in the region. As such, there is need for capacity building intervention.

My study has uncovered that the integration of local and traditional knowledge can provide several benefits including: (a) improve climate planning for the tourism sector, (b) assist in addressing the capacity challenges, and (c) aid in the quest to incorporate new ideas and solutions. However, the use of local and traditional knowledge has often been

overlooked by experts despite its success in many disciplines. As a practitioner and academic in planning, I feel obliged to find more innovative ways of utilizing local knowledge. As an initial step, I could incorporate more case studies on the use of local and traditional knowledge during my lecture delivery and expose my learners to live examples of its application.

Our overreliance on certain quantitative research methods and approaches in planning education in the region has resulted in a missed opportunity to engage these key stakeholders who we often acknowledge are important in our general planning discourse. A useful approach could be to introduce planning students to the use of Participatory Learning in Action (PLA) techniques early in their training. In this regard, we will not only be tapping into the local knowledge but will also help to build capacity and engage in experiential learning among planners and locals. By extension, this approach could also help to reinforce the point that context is fundamental in planning. Hence, the practice of transposing ideas, theories, and research methods from the Global North into a Caribbean context is not always feasible, as in the past this has resulted in failure of some programs and projects. In some instances, these programs and projects that are adopted from the Global North have exacerbated the potential impacts of climate change on the locals and have increased their vulnerability.

The use of local knowledge can help to ensure that the strategies developed are context specific. This is because locals will be engaged in their natural setting and are able to articulate the challenges that they confront and develop a greater understanding of the potential impacts of climate change on their livelihoods. Through this approach, new theoretical insights can be gained which can aid in informing planning practice as we infuse

local knowledge with scientific findings. This could also be a conduit to ease the tension between adaptation and mitigation and to focus more on building resilience in the region.

Finally, my research has highlighted the need for a transformative change in the tourism sector. The practice of viewing tourism as a panacea for development in the region is not viable particularly since we have not been assertive in engaging in contingency planning and our attempt to diversify the region's tourism product offerings has been uncoordinated. We need to be serious about implementing sustainable tourism practices. Though many of the existing tourism plans in the region are entitled "sustainable tourism plans" their focus remains economic, neglecting the other facets of sustainability. By implementing concrete sustainable tourism initiatives, we can begin to address the challenges that climate change presents.

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10 Appendix

Appendix 1-1: Impacts and Implications of Climate Change on the Tourism Sector

	IMPACT	NEGATIVE IMPLICATIONS	POSITIVE IMPLICATIONS
Direct Climatic	Warmer temperatures	Heat stress and sultriness for tourists, increase in energy cost due to cooling, infectious disease	Lengthier tourist season
	Diminishing sea ice	Implications for water resources Impact on marine transportation	Increase accessibility for cruise and yacht tourism
	Increasing frequency and intensity of extreme storms	Risk for tourism facilities (Loss of archaeological, cultural and heritage attraction sites), increased insurance cost/ loss of insurability, business interruption costs, reduction in projected revenue, reduced visitor arrivals	Other destinations become more appealing
	Reduced precipitation	Water shortages, competition over water between tourism and other sectors, increased wildfires threatening infrastructure and affecting demand	Emergence of ‘last chance’ destination sites
	Increased frequency of heavy precipitation	Flooding, coastal erosion, damage to historical and cultural assets, damage to tourism infrastructure, altered seasonality making planning difficult	
	Sea surface temperature rise	Increased coral bleaching, marine resource aesthetic degradation, threats to dive and snorkel destinations	
	Changes in terrestrial & marine biodiversity	Loss of natural attractions and species from destination, changes in plant, wildlife and insect populations, higher risk of diseases	

	IMPACT	NEGATIVE IMPLICATIONS	POSITIVE IMPLICATIONS
Indirect Environmental Change	Biodiversity Loss	Altered wildlife productivity and distribution	
	Sea level rise	Coastal erosion, loss of beach area, higher costs to maintain waterfronts, destruction of hotels and other tourism infrastructure located in coastal areas, increased cost to protect the coastline	
	Disease Outbreaks	Strain on health facilities, reduction in productivity	
	Disasters	Displacement, loss of life and property, increase insurance costs	
	Changes in landscapes	Communities become uninhabitable, limited land for development, coastal erosion	Creation of new tourist attraction
Indirect Societal Change	Global regional economic Impacts	Reduction in GDP	
	Increased security risk	Political unrest, exposure to the elements	
Induced by Mitigation & Adaptation	Travel cost	Shift in demand, tourist flows	Increase in long-haul travel- e.g., rail & coach
	Destination choice	Shifts in tourist demand and supply	

Sources: (Hoegh-Guldberg, et al., 2018; Mycoo & Donovan, 2017; Scott & Verkoeyen,

2018)

Appendix 1-2: United Nations' List of Small Island Developing States

UN MEMBERS (38)

Atlantic, Indian Ocean, Mediterranean and South

China Sea (AIMS) (9)

 Bahrain
 Cabo Verde
 Comoros
 Guinea-Bissau

 Maldives
 Mauritius
 Sao Tomé and Príncipe
 Seychelles
 Singapore

Caribbean (16)

 Antigua and Barbuda
 Bahamas
 Barbados
 Belize

 Cuba
 Dominica
 Dominican Republic
 Grenada
 Guyana
 Haiti
 Jamaica
 Saint Kitts and Nevis
 Saint Lucia
 Saint Vincent & the Grenadines
 Suriname
 Trinidad and Tobago

Pacific (13)

 Fiji
 Kiribati
 Marshall Islands
 Micronesia (Federated States of)
 Nauru
 Palau
 Papua New Guinea
 Samoa
 Solomon Islands
 Timor-Leste
 Tonga
 Tuvalu
 Vanuatu

NON-UN MEMBERS/ASSOCIATE MEMBERS OF REGIONAL COMMISSIONS (20)

 American Samoa
 Anguilla
 Aruba
 Bermuda
 British Virgin Islands
 Cayman Islands
 Commonwealth of Northern Marianas
 Cook Islands
 Curaçao
 French Polynesia

 Guadeloupe
 Guam
 Martinique
 Montserrat
 New Caledonia
 Niue
 Puerto Rico

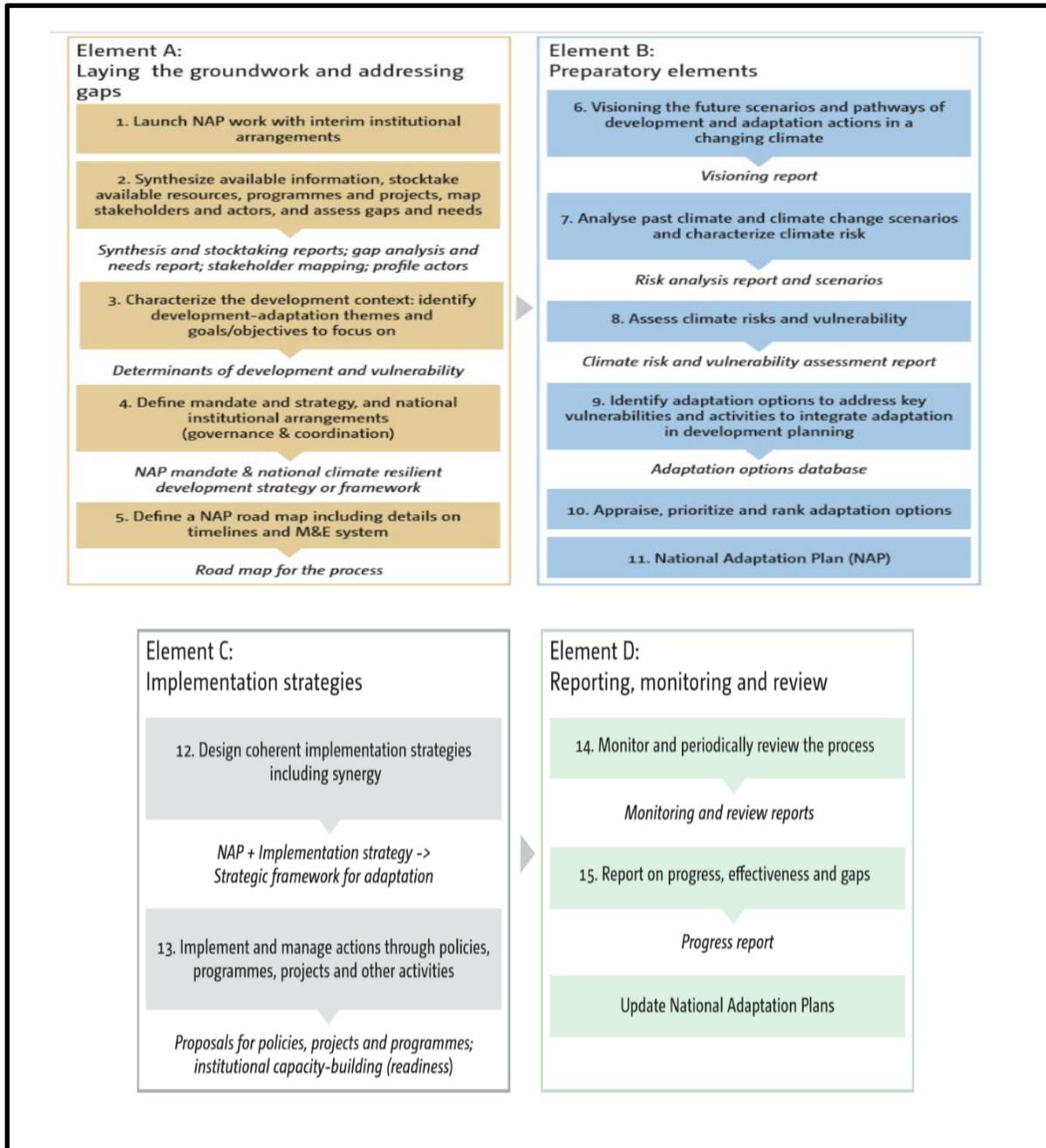
 Sint Maarten
 Turks and Caicos Islands
 U.S. Virgin Islands

Source: (UN-OHRLLS, 2017)

Appendix 2-1: List of Journals on Tourism Planning and Development

Title of Journal	Focus	Major Planning Related Thematic Areas	Coverage
Tourism Management	Planning and management of travel and tourism	Development Transportation	1982 - ongoing
Journal of Travel Research	Travel behaviour, management and development	Geography, Planning and Development Transportation	1969 - ongoing
Annals of Tourism Research	Academic perspective of tourism	Development	1974- ongoing
Journal of Hospitality and Tourism Research	Theoretical development	Education	1976-1981, 1983-1985, 1987-ongoing
Journal of Sustainable tourism	Tourism and Sustainable Development	Geography, Planning and Development	1993- ongoing
Current Issues in Tourism	Discussion and critique of key questions within tourism	Geography, Planning and Development	1998- ongoing
Tourism Geographies	Tourism and tourism-related areas of recreation and leisure studies from a geographic perspective	Geography, Planning and Development	1999- ongoing
Tourism Planning and Development	Theoretical and practical understandings of the intersections between tourism, planning and development studies	Development	2011- ongoing

Appendix 2-2: UNFCCC’s Framework for National Adaptation Plans



Source: (UNFCCC, 2018)

Appendix 3-1 Cover Page of the Certificate of Ethical Clearance

UNIVERSITY OF WATERLOO

Notification of Ethics Clearance to Conduct Research with Human Participants

Principal Investigator: Mark Seasons (School of Planning)

Student investigator: Nadine Freeman-Prince (School of Planning)

File #: 42093

Title: An Evaluation of National Tourism Plans in the Caribbean-SIDS Region in the Context of Climate Change

The Human Research Ethics Committee is pleased to inform you this study has been reviewed and given ethics clearance.

Initial Approval Date: 08/12/20 (m/d/y)

University of Waterloo Research Ethics Committees are composed in accordance with, and carry out their functions and operate in a manner consistent with, the institution's guidelines for research with human participants, the Tri-Council Policy Statement for the Ethical Conduct for Research Involving Humans (TCPS, 2nd edition), International Conference on Harmonization: Good Clinical Practice (ICH-GCP), the Ontario Personal Health Information Protection Act (PHIPA), the applicable laws and regulations of the province of Ontario. Both Committees are registered with the U.S. Department of Health and Human Services under the Federal Wide Assurance, FWA00021410, and IRB registration number IRB00002419 (HREC) and IRB00007409 (CREC).

This study is to be conducted in accordance with the submitted application and the most recently approved versions of all supporting materials.

Expiry Date: 08/13/21 (m/d/y)

Multi-year research must be renewed at least once every 12 months unless a more frequent review has otherwise been specified. Studies will only be renewed if the renewal report is received and approved before the expiry date. Failure to submit renewal reports will result in the investigators being notified ethics clearance has been suspended and Research Finance being notified the ethics clearance is no longer valid.

Level of review: Delegated Review

Signed on behalf of the Human Research Ethics Committee



Karen Pieters, Manager, Research Ethics, karen.pieters@uwaterloo.ca, 519-888-4567, ext. 30495

This above named study is to be conducted in accordance with the submitted application and the most recently approved versions of all supporting materials.

Documents reviewed and received ethics clearance for use in the study and/or received for information:

file: FREEMAN-PRINCE - Definition of Terms-version1-20200501.docx

file: FREEMAN-PRINCE- Description of Caribbean SIDS-version1-20200501.docx

Appendix 3-2: Survey Instrument

SURVEY INSTRUMENT

Research Topic: An Evaluation of National Tourism Plans in Caribbean-SIDS in the Context of Climate Change

Note to participants: You will be completing the study by an online survey operated by Qualtrics. When information is transmitted or stored on the Internet privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party (e.g., government agencies, hackers). Qualtrics temporarily collects your [company/contributor] ID and computer IP address to avoid duplicate responses in the data set but will not collect information that could identify you personally.

If you prefer not to submit your survey responses through this host, please contact Nadine Freeman-Prince at nadine.freeman-prince@uwaterloo.ca so that you can participate using an alternative method such as a paper-based questionnaire or telephone call. The alternate method may decrease anonymity, but confidentiality will be maintained.

Consent to Participant

I have read the information letter about a study being conducted by Nadine Freeman-Prince of the School of Planning at the University of Waterloo, Canada. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted. I was informed that I may withdraw my consent to participate at any time during the completion of the survey without penalty by advising the researcher. I am also aware that excerpts from the survey may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE#42093). If you have questions for the Committee contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca. For all other questions, contact **Nadine Freeman-Prince**, the student researcher at nadine.freeman-prince@uwaterloo.ca. You can also contact the research supervisor, **Professor Mark Seasons** at 519-888-4567 ext. 35922 or e-mail him at mark.seasons@uwaterloo.ca

With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

"I agree to participate."

"I do not wish to participate (please close your web browser now)."

TOURISM PLANS AND CLIMATE CHANGE

1. Which Caribbean-SIDS (Small Island Developing State/s) do you represent? _____ -

2. What is your job title? _____
3. In what sector are you employed?
 - a) Public - Ministries, departments, agencies (MDAs)/state-owned & operated entities
 - b) Private - Privately owned and operated enterprises/businesses
 - c) Third Sector - NGOs, CBOs, Cooperatives etc.
 - d) Fourth Sector - Social Enterprises
4. What is your area of expertise? (Tick all that apply)
 - a) Public
 - b) Private
 - c) Third sector
 - d) Fourth sector
5. What should be the purpose(s) of a tourism plan? (Tick all that may apply)
 - a) Spatial planning: control and manage tourism development e.g., locate and design tourism facilities, land use zoning for tourism activities, provide tourism infrastructure and services etc.
 - b) Economic: shape spatial and sectoral patterns of tourism investments, create employment and labour training, redistribute wealth etc.
 - c) Social/cultural Integration: foster integration with hosts and visitors, preserve heritage and cultural practices, hospitality etc.
 - d) Environmental: utilize tourism resources sustainably e.g., designating conservation areas, protecting the natural environment including flora and fauna, mitigating environmental hazard etc.
 - e) Business and marketing: advertise, promote, sponsor, provide tourist information services, guide business plans to increase visitor arrivals and enhance visitors' satisfaction etc.
 - f) Contingency planning: provide guidelines and appropriate actions for occurrences or external shocks that adversely affect the function of the tourism sector
 - g) Unsure
 - h) Other, please state _____
6. What do you think is the purpose of your country's tourism plan? (Tick all that apply)
 - a) Spatial planning
 - b) Economic
 - c) Social/cultural Integration
 - d) Environmental
 - e) Business and marketing
 - f) Contingency planning
 - g) Unsure
 - h) Other, please state _____
 - i) My country does not have a tourism plan

7. In order of priority, list the top **THREE** climate change challenges facing your country's tourism sector.
- a) _____
- b) _____
- c) _____
8. Which of the three challenges listed in question 7, do you think your country's tourism sector is **LEAST** prepared for?
- a) _____
9. Are there any opportunity(ies) that climate change presents for your country's tourism sector?
- a) Yes, please state _____
- b) No
- c) Unsure
10. Do you think that your country's tourism plan adequately addresses the challenges presented by climate change?
- a) Yes
- b) No, Give reason _____
- c) Not sure
- d) My country does not have a tourism plan
11. Based on your experiences, what is the best approach to be adopted for a tourism plan that focuses on climate change in your country?
- a) Adaptation only
- b) Mitigation only
- c) Both adaptation and mitigation
- d) Unsure
12. What **PRINCIPAL** factor should be used to determine how climate change issues are prioritized in a tourism plan for your country?
- a) Availability of resources
- b) Level of urgency
- c) Scale and magnitude of projected impact(s)
- d) Timeframe
- e) International agreements/commitments
- f) Public's feedback
- g) Other, please state _____
13. What is the **MOST APPROPRIATE** geographic scale that a tourism plan which addresses climate change responses should be developed at? Give reason for your response _____
- a) Site e.g., plan(s) for individual resort sites
- b) Local e.g., plan(s) for designated local areas, municipalities, resort towns/zones/corridors
- c) National e.g., a tourism plan that covers an entire country
- d) Regional e.g., a tourism plan that covers all Caribbean-SIDS
- e) Other, please state _____ -

14. What type of approach is **BEST** suited for tourism plans that address climate change responses?
- Master planning (end state) - establishing targets and encouraging the public and/or private sector institutions to work towards these targets within a certain time period
 - Incremental - formulating actions and strategies to be implemented at different phases of the process to allow for constant adjustments, and reflect the changing conditions
 - Strategic - recognizing the interconnection between the various facets of tourism development such as activity, communication, space and time
 - Legislative - developing and enacting laws for the formulation and implementation of these climate change-tourism plans
 - Other, please state _____
15. What should be the time coverage for a tourism plan that focuses on climate change for your country?
- Short-term plan (1-3 years)
 - Medium-term (4-9 years)
 - Long-term (10 years and over)
 - Continuous (plan revised based on stipulated timeframe mentioned in the plan or enacted by legislation)
 - Other, please state _____
16. What resources are required for a tourism plan that focuses on climate change for your country? (Tick all that apply)
- Human - designated personnel with technical knowledge on climate change responses etc.
 - Physical - equipment, buildings or other designated physical spaces etc.
 - Financial - availability of funds or access to designated climate response funding mechanisms etc.
 - Technological - computer hardware and software to conduct forecasting and spatial modelling etc.
 - Other, please state _____
17. Who should be the **PRINCIPAL** stakeholder responsible for the preparation of a tourism plan that focuses on climate change for your country?
- Ministries/ Departments/ Agencies/ Divisions of Tourism
 - Hoteliers Association/ operators/owners
 - Academia
 - Built environment professionals/Planners/Geographers etc.
 - Climate experts
 - NGOs with tourism and climate change mandates
 - Other, please state _____
18. What actions have your organization pursued to assist in addressing the challenges of climate change in the tourism sector? (Tick all that may apply)
- Capacity development e.g., training, participation in various climate change conferences, meetings, fora etc.
 - Research development
 - Information dissemination e.g., media releases, reports
 - Obtaining and/or establishing funding for climate action
 - Organizing or collaborating with other institutions to implement climate action programmes, projects or plans
 - No action
 - Unsure

h) Other, please state _____

19. Apart from those listed in question 17, are there any other actions that key tourism stakeholders, including organizations such as yours could be engaged in to provide appropriate climate change responses for your country?

a) Yes, please state _____

b) No

TOURISM PLAN QUALITY AND CLIMATE CHANGE

20. How important are the following plan quality principles for a tourism plan that focuses on climate change?

PLAN QUALITY PRINCIPLES	0- Unimportant	1-Neutral	2- Important
Fact Base: Description of the current and future local conditions which provides the empirical foundation to ensure that the key problems are identified and prioritized, and the policies are well-informed			
Goals: Broad statements of the desired future conditions that reflect the values of major stakeholders			
Policies: Guidelines to be followed to ensure that the plan's targets are met			
Implementation: Provisions regarding how the plan's policies should be carried out once it is adopted, such as organizational responsibilities, timelines and funding			
Monitoring: Provision regarding how plan's policies should be evaluated to ensure that actual development meets stated goals for tracking the performance of policies contained in the plan			
Interorganizational Coordination: Recognition of the interdependent nature of plan making and implementation processes (e.g., coordination with other governments)			
Public Participation: Recognition of formal and informal actors engaged in the plan making process			
Plan Organization and Presentation: A user friendly and attractive plan which includes an executive summary; cross-referencing; table of contents; glossary of terms; illustrations etc.			

21. Are there any other plan quality principle(s) that should be included in tourism plan that focuses on climate change?

a) Yes, please state _____

b) No

22. How does your country's tourism plan, or lack of a tourism plan, impact on your organization's ability to effectively contribute to climate change responses in the tourism sector?

23. What factors could enhance the quality of a tourism plan for your country that focuses on addressing climate change? (Tick all that apply)
- a) Legislative- e.g., state mandate, by-laws, policies etc.
 - b) Institutional-interagency collaboration
 - c) Political buy-in
 - d) Resource allocation-provision of financial incentives and assistance for plan production
 - e) Human capacity- enhancing technical skills of the professional staff in the area of climate change
 - f) Opportunities for public participation e.g., public hearings and workshops, multiple participation channels
 - g) Other, please state _____

END OF SURVEY

Thank you for your participation! Your feedback is extremely valuable.

If you indicated on the survey that you would like a copy of the results, they will be sent to you by e-mail at the address you provided by the end of **December 2020**.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee ((**ORE#42093**)). If you have questions for the Committee contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

For all other questions or if you have general comments or questions related to this study, please contact Nadine Freeman-Prince, School of Planning at nadine.freeman-prince@uwaterloo.ca or Professor Mark Seasons, School of Planning, at 519-888-4567, Extension 35922 or e-mail him at mark.season@uwaterloo.ca

Appendix 3-3: E-Mail Recruitment for Survey

Nadine Freeman-Prince
C/o UNIVERSITY OF WATERLOO, CANADA
FACULTY OF ENVIRONMENT
School of Planning
200 University Avenue W
Waterloo, ON N2L 3G1

August 17, 2020

Dear potential participant:

Re: Invitation to Participate in an Online Survey for a Doctoral Research Study

I am a PhD candidate at the University of Waterloo, Canada conducting a research thesis entitled, "**An Evaluation of National Tourism Plans in the Caribbean-SIDS Region in the Context of Climate Change,**" under the supervision of **Professor Mark Seasons** of the School of Planning. Currently, I am gathering primary data, and as such, I kindly request your participation in this phase of my study. The objectives of the research study are:

- i) *to develop a framework for assessing regional tourism plans grounded in climate change plan quality criteria;*
- ii) *to conduct an assessment of the quality of tourism plans in the region based on the framework developed and*
- iii) *to outline guidelines for improving the quality of tourism plans in the region in the context of climate change.*

If you decide to volunteer, you will be asked to complete a **20 minutes** online survey anonymously which will be available from August 17, 2020 to August 31, 2020 inclusive. Survey questions focus on: *i) the impacts of climate change on tourism in Caribbean-SIDS; ii) the challenges and opportunities that the region's tourism sector faces in addressing climate change; iii) the quality of tourism plans in the region in addressing climate change; iv) recommendations for improving the quality of these tourism plans and v) the resources required to improve the quality of these plans.*

Participation in this study is voluntary. You may decline to answer any questions that you do not wish to answer, and you can withdraw your participation at any time by not submitting your responses.

You will be completing the study by an online survey operated by Qualtrics. When information is transmitted or stored on the internet privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party (e.g., government agencies, hackers). Qualtrics temporarily collects your [company/contributor] ID and computer IP address to avoid duplicate responses in the dataset but will not collect information that could identify you personally. All the data will be summarized, and no individual could be identified from these summarized results. The data, with no personal identifiers collected from this study will be maintained on a password-protected computer database in a restricted access area of the university. Additionally, the data will be electronically archived after completion of the study and maintained for at least two years, and then erased.

If you wish to participate in this online survey, please visit the study's website at: https://uwaterloo.ca1.qualtrics.com/fe/form/SV_7Wcd5Q4zdiquGxf or e-mail me. Further, if you prefer not to participate using this online method, please contact me so that you can participate using an alternative method such as a paper-based questionnaire or telephone call. The alternate method may decrease anonymity, but confidentiality will be maintained.

Please note that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE#42093). If you have questions for the Committee, please contact the **Office of Research Ethics**, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

For all other questions about the study, please contact either **Professor Mark Seasons at 519-888-4567 extension 35922** or e-mail mark.seasons@uwaterloo.ca or me at the e-mail address listed below.

Once all the data are collected and analyzed for this study, I intend to share the information with the research community through seminars, conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or would like a summary of the results, kindly indicate your interest, so that when the study is completed, which I anticipate to be by the end of December 2020, I will e-mail you the information.

Thank you in advance, and I look forward to your assistance with this study.

Yours truly,

A handwritten signature in black ink that reads "N. FREEMAN-PRINCE". The signature is written in a cursive style with some capital letters.

Nadine Freeman-Prince
University of Waterloo, Canada
School of Planning
e-mail: nadine.freeman-prince@uwaterloo.ca

Appendix 3-4: Telephone Recruitment Letter

TELEPHONE RECRUITMENT SCRIPT FOR SURVEY

P = Potential Participant; I = Interviewer

I - May I please speak to [name of potential participant]?

P - Hello, [name of potential participant] speaking. How may I help you?

I - My name is Nadine Freeman-Prince and I am a Doctoral candidate in the School of Planning at the University of Waterloo, Canada. I am currently conducting a research under the supervision of Professor Mark Seasons entitled, "An Evaluation of National Tourism Plans in the Caribbean-SIDS Region in the Context of Climate Change." As part of my thesis research, I am administering a survey to key tourism stakeholders, to discover their perspectives on the quality of tourism plans in the Caribbean-SIDS region within the context of climate change, and their recommendations on how the quality of these plans can be improved in addressing climate change.

As you play a key role in tourism planning in the Caribbean-SIDS region, I would like to speak with you about your perspectives on the impacts of climate change on tourism in the region and the quality of regional tourism plans in addressing climate change and how it can be improved. Is this a convenient time to give you further information about the interviews?

P - No, could you call back later (agree on a more convenient time to call person back).

OR

P - Yes, could you provide me with some more information regarding the interviews you will be conducting?

I - Background Information:

- It is an online anonymous survey which will take less than **20 minutes** to complete
- It will be available online from June 23, 2020 to July 14, 2020 inclusive.
- If you prefer to participate using an alternative method such as a paper-based questionnaire or telephone call, you can indicate this to me so that I can make the necessary arrangement. While the alternate method may decrease anonymity, confidentiality will still be maintained.
- Involvement in this interview is entirely voluntary.
- The questions are quite general, for example, "What do you consider to be the top three climate change challenges facing your country's tourism sector?"
- You may decline to answer any of the questions you do not wish to answer and may terminate the survey at any time.
- Your identity will be confidential.
- The data collected will be kept in a secure location for at least two years.
- If you have any questions regarding this study or would like additional information to assist you in reaching a decision about participation, please feel free to contact me at nadine.freeman-prince@uwaterloo.ca or my supervisor, Professor Mark Seasons at 519-888-4567, Ext. 35922 or e-mail him at mark.season@uwaterloo.ca.

- I would like to assure you that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is yours.
- After all of the data have been analyzed, you will receive an executive summary of the research results.

With your permission, I would like to email/mail/fax you an information letter which has all of these details along with contact names and numbers on it to assist you in making a decision about your participation in this study.

P - No thank you.

OR

P - Sure (get contact information from potential participant i.e., mailing address/fax number).

I - Thank you very much for your time. May I call you in 2 or 3 days to see if you are interested in completing the survey? Once again, if you have any questions or concerns please do not hesitate to e-mail me.

P - Good-bye.

I - Good-bye.

Appendix 3-5: Information Letter for Survey

Nadine Freeman-Prince

C/o UNIVERSITY OF WATERLOO, CANADA

FACULTY OF ENVIRONMENT

School of Planning

200 University Avenue W

Waterloo, ON N2L 3G1

August 17, 2020

Dear potential participant:

Re: Invitation to Participate in an Online Survey for a Doctoral Research Study

I am a PhD candidate at the University of Waterloo, Canada conducting a research thesis entitled, “**An Evaluation of National Tourism Plans in the Caribbean-SIDS Region in the Context of Climate Change,**” under the supervision of **Professor Mark Seasons** of the School of Planning. Currently, I am gathering primary data, and as such, I kindly request your participation in this phase of my study. The objectives of the research study are:

- i) *to develop a framework for assessing regional tourism plans grounded in climate change plan quality criteria;*
- ii) *to conduct an assessment of the quality of tourism plans in the region based on the framework developed and*
- iii) *to outline guidelines for improving the quality of tourism plans in the region in the context of climate change.*

If you decide to volunteer, you will be asked to complete a **20 minutes** online survey anonymously which will be available from August 17, 2020 to August 31, 2020 inclusive. Survey questions focus on: *i) the impacts of climate change on tourism in Caribbean-SIDS; ii) the challenges and opportunities that the region’s tourism sector faces in addressing climate change; iii) the quality of tourism plans in the region in addressing climate change; iv) recommendations for improving the quality of these tourism plans and v) the resources required to improve the quality of these plans.*

Participation in this study is voluntary. You may decline to answer any questions that you do not wish to answer, and you can withdraw your participation at any time by not submitting your responses.

You will be completing the study by an online survey operated by Qualtrics. When information is transmitted or stored on the internet privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party (e.g., government agencies, hackers). Qualtrics temporarily collects your [company/contributor] ID and computer IP address to avoid duplicate responses in the dataset but will not collect information that could identify you personally. All the data will be summarized, and no individual could be identified from these summarized results. The data, with no personal identifiers collected from this study will be maintained on a password-protected computer database in a restricted access area of the university. Additionally, the data will be electronically archived after completion of the study and maintained for at least two years, and then erased.

If you wish to participate in this online survey, please visit the study's website at: https://uwaterloo.ca/1.qualtrics.com/jfe/form/SV_7Wcd5Q4zdiguGxf or e-mail me. Further, if you prefer not to participate using this online method, please contact me so that you can participate using an alternative method such as a paper-based questionnaire or telephone call. The alternate method may decrease anonymity, but confidentiality will be maintained.

Please note that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (**ORE#42093**). If you have questions for the Committee, please contact the **Office of Research Ethics, at 1-519-888-4567 ext. 36005** or ore-ceo@uwaterloo.ca.

For all other questions about the study, please contact either **Professor Mark Seasons at 519-888-4567 extension 35922** or e-mail mark.seasons@uwaterloo.ca or me at the e-mail address listed below.

Once all the data are collected and analyzed for this study, I intend to share the information with the research community through seminars, conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or would like a summary of the results, kindly indicate your interest, so that when the study is completed, which I anticipate to be by the end of December 2020, I will e-mail you the information.

Thank you in advance, and I look forward to your assistance with this study.

Yours truly,

A handwritten signature in black ink that reads "N. FREEMAN-PRINCE". The signature is written in a cursive style with some capital letters.

Nadine Freeman-Prince
University of Waterloo, Canada
School of Planning
e-mail: nadine.freeman-prince@uwaterloo.ca

Appendix 4-1: Plan Quality Evaluation Protocol

PLAN QUALITY PRINCIPLES		INDICATORS	DESCRIPTION
FACT BASE	1	Climate Change Anthropogenic	Climate change is acknowledged as at least partially anthropogenic in the plan and/or the plan states generally the kinds of human activities that cause climate change
	2	Climate Change as a Sector Issue	Climate change is framed as an issue facing the nation's tourism sector
	3	Emissions Inventory - General	The plan states that a national emissions inventory was conducted or will be conducted for the tourism sector
	4	Emissions Inventory - Specific	The results of the inventory are broken down by sub-sector and/or current per capita emissions are provided in the plan
	5	Emissions Base Year	A base year for emissions is included in the plan
	6	Emissions Trend Forecast - General	The plan mentions that an emissions forecast has been or will be conducted for the sector
	7	Impacts of Climate Change - General	The plan states there will be impacts of global climate change affecting the sector generally or names broad areas where impacts might be expected (e.g., Sea level rise, increasing temperatures, increased frequency and intensity of extreme storms etc.)
	8	Impacts of Climate Change - Specific	The plan identifies specific areas that climate change will have a direct impact on national tourism (e.g., Loss of tourism attraction sites, damage to tourism infrastructure, reduced tourist arrivals, business interruption costs etc.)
	9	Legislative Context-General	The plan refers to the WTTC's or UNWTO' or other international climate change goals/legislation/regulation for the sector, INDCs etc.
	10	Legislative Context-Specific	The plan refers to the Caribbean Regional Framework, Regional Implementation, national policies on climate change or national mandates to address the projected impacts of climate change on national tourism
	11	Land Use- General	The plan mentions existing tourism land use and supply as well as future land demand for tourism to address climate change nationally
	12	Land Use-Specific	The plan identifies specific sites for current and future tourism development to address climate change
	13	Vulnerability Assessment - General	The plan mentions that certain areas, demographic populations or aspects of the tourism sector are/will be disproportionately affected and/or has or will complete a vulnerability assessment as part of an adaptation/ climate change plan
	14	Vulnerability Assessment Specific	The plan gives more detail on one or more key vulnerability indicators and how it will affect the vulnerability of the sector nationally (e.g., Access to resources, human and institutional capacity within the tourism sector, capacity of existing major tourism infrastructure to withstand projected climate change impacts)

PLAN QUALITY PRINCIPLES		INDICATORS	DESCRIPTION
GOALS	1	Adaptation-General	The plan has broad goals related to adaptation or reducing vulnerability to climate change in the sector
	2	Adaptation - Specific	The plan has specific goals related to adaptation or reducing vulnerability to climate change in the sector including technical, managerial, policy, research, education, behavioural strategies (e.g., water and energy conservation plans, mandatory advance resort development and building standards, public education etc.)
	3	Sector Emissions	There is at least one goal, policy or target that is explicitly related to reducing the sector's emissions
	4	Mitigation Long-Term GHG Emissions –	There are long-term (later than 2025) targets for GHG emission reductions (note: a base year must be identified)
	5	Mitigation Short-Term- GHG Emissions	There are short-term (2025 or earlier) targets for GHG emission reductions (note: a base year must be identified)
POLICIES	1	Policy Language	Policy actions are written in mandatory language (e.g., “will”, “shall”, “require”, “must”)
	2	Communication	The plan includes at least one policy for public communication, behaviour change, education or participation on climate issues among tourism stakeholders
	3	Integrating Sustainable Tourism and Climate Change Policies	The plan acknowledges that policies related to sustainable tourism and climate change are linked and/or includes at least one policy on sustainable tourism that could lead to efforts to reduce the negative impacts of climate change. (e.g., policies relating to compact tourism development, reduced long haul travel etc.)
	4	Energy	The plan includes at least one policy for energy reduction strategies (e.g., renewable or solar energy, energy efficiency or energy star, green building or energy efficiency standards)
	5	Financing	The plan identifies at least one policy on financial mechanisms to incentivize action, collect, commit or access funds for climate change responses in the sector (e.g., GHG reduction fees, carbon tax, travel taxes, tourism development charges, budget commitments, accessing the Adaptation Fund, Green Climate Fund or other climate funds)
	6	Food/ Agriculture	The plan includes at least one policy for food security in the sector (e.g., support programs for local farmers to supply the tourism sector with food, support for organic farming, host communities' gardening projects etc.)
	7	Hazard Reduction - Built Environment	The plan includes at least one policy for hazard reduction through the built environment (e.g., hazard-resistant building code for resort areas, low-impact design for impervious surfaces, green tourist building/green infrastructure, retrofitting existing tourism infrastructure etc.)
	8	Hazard Reduction - Land Use	The plan includes at least one policy for hazard reduction through tourism planning (e.g., location of tourism development to reduce risk, alternative uses for hazard prone tourist areas etc.)

PLAN QUALITY PRINCIPLES		INDICATORS	DESCRIPTION
	9	Resource Management	The plan includes at least one policy for resource management in the tourism sector (e.g., creation of conservation zones/protected areas, ecotourism, sustainable tourism etc.)
	10	Transportation	The plan includes at least one policy for transportation (e.g., alternative transportation strategies, carbon taxes for fleet, aviation or road transportation within the sector)
	11	Waste	The plan includes at least one policy for waste reduction strategies in the sector (e.g., zero waste targets, strategies to increase recycling or composting, waste management etc.)
	12	Water	The plan includes at least one policy for water supply/demand or conservation strategies in the sector (e.g., greywater reuse, water restrictions, storm-water management)
IMPLEMENTATION	1	Implementation Section	The plan includes a separate section that addresses what the tourism sector needs to do to implement actions relating to climate change
	2	Plan Priority	The plan prioritizes at least one action pertaining to climate change for implementation
	3	Organizational Responsibility	The plan identifies specific organizations / relevant personnel with responsibility for implementation of climate change actions
	4	Roles and Responsibilities - General	The plan identifies one to two climate actions that have tourism ministry/departments, individuals or other tourism stakeholders for implementation assigned
	5	Timelines	The plan identifies timelines for implementation of climate change actions
	6	Resource and Financial Allocation	The plan sets out how resources will be allocated and/or outlines a budget for the implementation of climate actions in the sector
	7	Related Adaptation Plan	The plan refers to an adaptation/adaptation related plan that has been or will be developed by the sector
	8	Related Mitigation Plan	The plan refers to a mitigation, climate action, or energy plan that has been or will be developed by the sector
MONITORING AND EVALUATION	1	Monitoring and Evaluation Section	The plan includes a separate section that addresses what needs to be done to monitor and evaluate the plan and climate change actions
	2	Organizational Responsibility	The plan identifies departments responsible for monitoring the plan and climate action
	3	Timeline for Plan Update	The plan identifies a timetable for updating the plan based in part, on results of monitoring changing condition and climate actions
	4	Quantifiable Goals and Policies	The plan includes climate goals and policies that are quantifiable and based on measurable objectives and / or targets (includes indicators)

PLAN QUALITY PRINCIPLES		INDICATORS	DESCRIPTION
INTER-ORGANIZATIONAL COORDINATION	1	Horizontal Coordination	The plan includes at least one horizontal connection among national agencies responsible for tourism and climate change
	2	Vertical Coordination	The plan identifies at least one vertical connection among tourism and climate change stakeholders at the global, regional, national, or local levels
PARTICIPATION	1	Stakeholders' Engagement	The plan identifies the organization and stakeholders involved in the plan making process (e.g., staff from different tourism agencies, departments, citizens, personnel from the Caribbean Tourism Organization, World Travel and Tourism Council, Caribbean Hotel and Tourism Association, politicians, Climate Change agencies etc.)
	2	Stakeholders' Input	The plan discusses how stakeholders were involved in the plan preparation process
	3	Public Engagement	The plan identifies the public as part of the plan making process
	4	Purpose of Participation	The plan includes an explanation of why organizations and tourism and climate change stakeholders were involved
	5	Evolution of Plan	The plan includes a description of the evolution of the plan including the administrative authority for plan preparation e.g., Ministry of Tourism or other tourism divisions or departments and/or climate change issues
	6	Background Information	The plan states the reason for its preparation including that climate change impacts on its tourism sector
PLAN ORGANIZATION AND PRESENTATION	1	Executive Summary	The plan contains an executive summary or similar section that provides an overview/ summary of the plan
	2	Table of Contents	The plan includes a table of contents detailing plan chapters and subheadings
	3	Glossary of Terms	The plan includes a glossary or definition of terms
	4	Illustrations and Layout	The plan uses clear illustrations (e.g., maps, pictures, tables, figures etc. and have an attractive layout
	5	Compactness	The plan is compact and easy to carry around (e.g., 1-99 pages, 100- 199 pages, >199 pages)

11 GLOSSARY

Several key terms are used throughout this dissertation. In some instances, I have adopted the standard definition of these terms found in many academic and policy documents. In other instances, I developed my own definitions which were informed by the literature, to fulfill the objectives of the research.

- Adaptation:** In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects (Intergovernmental Panel on Climate Change [IPCC], 2018, p. 542).
- Climate Change:** A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer (IPCC, 2018, p. 544).
- Climate Action Plans:** Strategic plans that establish policies and programmes for reducing (or mitigating) a community's greenhouse gas (GHG) emissions and adapting to the impacts of climate change (Boswell et al., 2012, p. 6).
- Mitigation:** A human intervention to reduce emissions or enhance the sinks of greenhouse gases (IPCC, 2018, p. 554).

Planning The conscious decision made by those in authority to provide activities and services related to the built, social, economic, and physiographic environments that result in wider societal spatial and temporal consequences.

Resilience The capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning, and transformation (IPCC, 2018, p. 557).

Risk: The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain. In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences (IPCC, 2018, p. 557).

Tourism: The activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited (UN et al., 2001, p. 1).

Tourism Planning: The conscious decision made, informed by research and critical evaluation of resources and assets to develop and implement plans, policies, and actions that are geared toward optimizing the positive outcomes on the social, economic, environmental, or physical

character of tourism destinations and the wider tourism sector, while simultaneously reducing or eliminating where possible, the negative outcomes and ensuring visitor satisfaction.

Sustainable Tourism: 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 (UNWTO et al., 2016, p. 12).

Vulnerability The propensity or predisposition to be adversely affected.
Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt (IPCC, 2018 p. 541).