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After the Storm

The Institutionally Disruptive Impacts of Climate Change in The Bahamas

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5.1 INTRODUCTION

The Bahamas is a paradigmatic case of the myriad challenges facing Small Island Developing States (SIDS) when it comes to responding to climate change impacts. Despite the country's geographic vulnerability in terms of its disparate, low-lying islands, there is no national policy to address climate change loss and damage explicitly. While fifteen years ago the country was at the cutting edge in terms of thinking about climate change impacts – adopting a national policy on climate change adaptation in 2005 – our research with national stakeholders shows that both international and national incentives and institutional structures have, until recently, led to an emphasis on thinking about climate change mitigation over work on adaptation or loss and damage. As we saw in Tuvalu and Antigua and Barbuda in Chapters 3 and 4, the strength of recent weather events – particularly, in the case of The Bahamas, Hurricane Dorian in 2019 – has begun to change this landscape.

This chapter argues that climate change is having an institutionally disruptive impact in The Bahamas by changing the configuration of relevant bodies and empowering existing and newly established institutions and changing ways of working among civil society organizations. This is exemplified by the establishment of the Ministry of Disaster Preparedness, Management and Reconstruction in 2021; the strengthening of the national legal framework for environmental protection; and the growing awareness among civil society organizations, such as the Red Cross and the Nature Conservancy, that considerations of climate change should shape their activities in SIDS like The Bahamas. This chapter shows that though awareness of climate change is an important background context in policymaking this awareness does not always translate into policy. Political will and the ability to follow through on existing policy were seen by key stakeholders as critical for addressing contemporary and future climate impacts (Thomas & Benjamin 2018b).

This chapter draws on data from semi-structured interviews with key stakeholders in The Bahamas as well as a review of relevant policy documents. It surveys the policy landscape and identifies where and how adaptation and climate risks have been addressed – and where they have been ignored. It also examines which international institutions and frameworks policymakers and other stakeholders have turned to in dealing with issues relevant for climate change loss and damage. By looking at levels of awareness among key stakeholders of climate change impacts, the chapter highlights the forms of knowledge that are relied upon as well as identifying some key knowledge gaps. The chapter argues that while much of the loss and damage policy agenda is focused on developing the knowledge, resources, skills, and governance frameworks to grapple with the impacts of climate change, it is also worth paying attention to how climate change impacts are shaping political institutions and defining the possible contours of knowledge generation.

5.2 NATIONAL CIRCUMSTANCES

About 700 islands and more than 200 cays make up the archipelago of the Commonwealth of The Bahamas, with about thirty islands being inhabited (The Commonwealth of The Bahamas 2014, p. 6). The islands of The Bahamas have low relief, generally flat terrain, and contain significant wetlands and mangrove forests. The Bahamas is home to 5 percent of the world's coral as well as the world's third-longest barrier reef. Located in the shallowest tropical water area in the Western Atlantic, more than 80 percent of the country lies within one meter of sea level and the majority of the population are located on or near the coast (The Commonwealth of The Bahamas 2014, p. 2). This makes The Bahamas particularly vulnerable to the adverse effects of climate change, especially continuing sea-level rise, accelerated erosion of coastal zones, flooding from heavy rainfall, threats to freshwater sources because of saltwater intrusion, water scarcity, increased frequency and intensity of hurricanes, coral reef destruction, and the spread of vector-borne diseases such as dengue fever and malaria (Thomas & Benjamin 2020, p. 718). Threats to underground water resources due to seawater inundation as well as ocean acidifications pose risks to the country's biodiversity as they exacerbate coral bleaching and impede the natural stabilization and protection function of coral reefs against coastal erosion (The Commonwealth of The Bahamas 2014, p. 37; World Bank Group 2021).

Economically, The Bahamas is reliant on tourism, which accounts for 60 percent of its gross domestic product (The Commonwealth of The Bahamas 2014, p. 109). With 60 percent of the tourism infrastructure located within 100 meters of the coast, and a predicted loss of beachlines due to coastal erosion from rising seas, the country's main economic sector is at risk from climate change impacts (Pathak et al. 2021). Hurricanes and tropical storms are highly disruptive to the tourism industry and destructive for human settlements and infrastructure as well as natural ecosystems (The Commonwealth

of The Bahamas 2014, pp. 35–36). In 2017, for instance, category five Hurricane Irma left a whole island in the south of the archipelago unlivable. Hurricane Dorian in 2019 was the strongest to ever hit The Bahamas, causing flooding and mass destruction on the Islands of Abaco and Grand Bahama. The impacts of climate change also exacerbate preexisting vulnerabilities and increase the risk of human rights violations (Benjamin & Haynes 2018). The example of the displacement of irregular migrants has been well documented, and there have been reports of increases in gender-based violence, increasing vulnerability of children at risk of violence, and negative mental health impacts in the wake of Hurricane Dorian (International Organization for Migration 2020; Pegram & Knaute 2019; Rudram & Singh 2021; Thomas & Benjamin 2020, p. 725).

5.3 POLICY LANDSCAPE

To date, in terms of its overarching policy focus on climate change, The Bahamas government has focused on mitigation, with the adoption of a National Energy Policy in 2013 and amendments to its Forestry Act in 2014. More recent policy efforts have also focused on mitigation, with the Carbon Credit Trading Bill in 2022, which seeks to establish a regulatory framework for trading carbon credits (The Commonwealth of The Bahamas 2022a; The Securities Commission of The Bahamas 2022; see also McCartney 2022), and partnerships with a private cryptocurrency company to develop a carbon exchange. The Bahamas ratified the Paris Agreement on August 22, 2016, and its Nationally Determined Contribution (NDC) in 2016. The NDC commits The Bahamas to reducing greenhouse gas emissions by 30 percent compared to its business-as-usual scenario by 2030, conditional upon international support (World Bank Group 2021).

One interviewee suggested that policy development on climate change – particularly the focus on reducing emissions – has been influenced by the forms of international finance available: "Most of our climate change interventions have been focused on mitigation because that's where the money was, but The Bahamas really doesn't contribute that much to climate change" (Interview 8). Another civil servant who had been involved in United Nations Framework Convention on Climate Change (UNFCCC) processes had also been advocating for greater emphasis on adaptation policy because "even if we meet a 1.5 target, we're still going to have major impact. So we need to brace ourselves and focus on climate change adaptation" (Interview 2).

There is no specific climate change loss and damage policy in The Bahamas. The three main policy instruments relevant to governing climate change loss and damage are (a) the National Policy for the Adaptation to Climate Change issued by The Bahamas Environment, Science and Technology (BEST) Commission in March 2005; (b) the Disaster Preparedness and Response Act from 2008; and (c) the Environmental Planning and Protection Act (EPPA)

from 2019. The first of these assesses the country's vulnerability to the projected impacts of climate change by sectors, including coastal and marine resources and fisheries, terrestrial biodiversity resources, agriculture, forestry, human settlements and human health, water resources, energy and transportation, tourism, finance, and insurance. Policy directives were established for these sectors, and the government is seen as playing an important role facilitating the implementation of the policy directives (The Commonwealth of The Bahamas 2005). While the National Policy for the Adaptation to Climate Change refers to numerous forms of loss, there are no references to the concept of loss and damage as articulated within the UNFCCC. This is not surprising given that the policy was developed in the early 2000s, well before the loss and damage concept began to gain traction at the international level.

The enactment of Chapter 34A of the Disaster Preparedness and Response Act in 2008 established the basis for the current normative framework for disaster management in The Bahamas, consolidating the National Emergency Management Agency (NEMA) as the national agency responsible for disaster relief management in the country. However, an assessment by the Inter-American Development Bank (IDB) found in 2018 that "The Bahamas currently lacks a legal framework for comprehensive disaster risk management that explicitly addresses all risk management processes related to prospective, corrective and reactive management" (Lacambra et al. 2018, p. 3). In the immediate aftermath of Hurricane Dorian in September 2019, the prime minister announced the creation of a new Ministry of Disaster Preparedness, Management and Reconstruction, which includes a significant restructuring of NEMA. Climate change is increasingly cited in reports and plans as a factor contributing to disaster risk though, again, the notion of climate change loss and damage is not mentioned explicitly.

Third, in December 2019, the Parliament of The Bahamas passed a package of environmental bills to further develop the legal framework which promotes and supports the management, protection, enhancement, and proper use of the Bahamian environment. The EPPA 2019 includes among its objectives the development of a robust climate change regime that applies adaptation and mitigation technologies to address vulnerabilities. One interviewee also said that the country's draft National Development Plan (NDP), which creates a long-term vision for The Bahamas and identifies priorities and guides investment decisions, will play a role in shaping the policy landscape within which loss and damage will be addressed nationally (Interview 3). At the time of writing, the draft NDP, initially developed in 2016, has yet to be finalized and officially adopted by the government. However, considerations of climate change impacts are present throughout the document and the draft NDP is frequently cited as providing guidance for national development planning (The Commonwealth of The Bahamas 2022b). For example, in the section on natural environment, the NDP suggests: "We are increasingly acknowledging the importance of climate change. Climate change is real, and we are not prepared

for it. … Addressing the climate change challenge cannot be left to our grandchildren; it will be too late" (National Development Plan Secretariat 2016, p. 244). The NDP also includes consideration of resilient responses, coastal zone management, and relocation of human settlements.

Our data-gathering identified two significant barriers to developing further policy on the impacts of climate change. The first concerns political will, which was an issue raised by most research participants. One interviewee from an independent organization noted that there was a lack of motivation to pursue climate change policy despite mounting evidence of the problem: "I am not convinced that certain people in government actually are interested in taking care of the environment to the extent that it needs. … And there's evidence for that …. I know it's not from lack of information" (Interview 10). Another external stakeholder argued that the nature of the challenge of climate change and the timescales made it challenging for politicians to prioritize:

> Political will is a little bit different from awareness. There's the awareness aspect, then there is the political will. A lot of times people who are in politics … are looking for low-hanging fruits in terms of wins, and things that are outward facing for the public to "see what I did." Climate action doesn't always lend itself to those sorts of outward facing things … that you make a decision or implement something today and you really don't see the impact until five or ten years down the road. (Interview 7)

One interviewee, when discussing the EPPA, suggested that the strengthening of the law meant that political will was going to be less of a decisive factor in shaping action: "The political will has been there in certain aspects, and certain aspects it just hasn't been there. But I think that now the law is in place, we're going to see less influence from the political area because the law is the law. Of course, yeah, I expect people to challenge it, but the law is the law" (Interview 5).

Participants also identified the role of civil society in putting pressure on the government to act on climate change. One interviewee from a civil society organization reflected that in the development of policymaking it would be important for civil society organizations "to ensure that we don't come at the last minute to demand certain things, but we're doing it on a more consistent and visible basis" and also noted that "society as a whole has a lot to do in terms of holding the government accountable … and paying attention to these issues" (Interview 3).

Another challenge in climate change policy relates to the effective implementation of existing policies. Just under half of our interviewees brought this issue up without prompting during interviews. For example, one interviewee spoke of the frustration with the redundancy in policy work on these topics:

> You know how many times we've already come to this realization at every workshop to do with climate change that we've been at? We've come up with brilliant ideas that need to be implemented in terms of building codes, in terms of this in terms of that, but nothing ever results from these workshops. … Once the workshop is done, someone ticks the box and says we did it. Yay, done. That last report gets filed away, never to be seen

again. And then a new workshop comes up and we start from scratch with the exact same discussions. And we come up with pretty much the same ideas. (Interview 10)

Another interviewee made a similar point specifically in relation to the 2005 National Policy for the Adaptation to Climate Change, suggesting, "I don't think much of the things were implemented. So, definitely need to look at actioning items, rather than just writing them down. I love policy, but policy without action is nothing" (Interview 2). Another research participant noted the lack of implementation once assessment had been carried out: "So one of the things we have a tendency to do is carry out these assessments and what tends to happen, in my experience, is they're shelved, they're not necessarily incorporated into policies" (Interview 3). One interviewee highlighted the length of time taken for agreements to become policy:

I also think a challenge policy-wise for us is going to be consistency and follow through. So we might be successful like getting a climate policy or some agreement from the government to do something related to climate, that to me is an easier kind of win. What's more difficult is getting government to stick on it over a long period of time, despite maybe change in administrations and because climate really is an issue that's long term. This is a long game. It will require concerted effort for a long time. (Interview 4)

The same interviewee pointed out that for The Bahamas the coordination across many different departments and sectors is a huge challenge for successful policy implementation:

Another challenge to me is also coordination. So climate is cross-cutting I mentioned, we're obviously coming from an environmental angle, but this is going to affect all sectors, water sector, transportation, oil, tourism, banking, finance. So at some point I think trying to get us all to understand that this is a cross-cutting issue and there needs to be coordination across many stakeholders from multisectors and doing that to help us with accessing financing, understanding the applications policy-wise etc. That to me is an uphill battle for The Bahamas for sure. (Interview 4)

Despite these challenges, some interviewees felt that policymakers were becoming more attuned to climate change. One suggested that as new legislation is being developed "references to the impacts of climate change indirectly and directly in each of the new acts" would be fruitful and could link this national-level work better to global developments (Interview 1). Another stated that introducing considerations of climate change into bills before parliament would help to "tweak our legislation," which would "enable us to address climate change a little bit better." They cited the example of the Fisheries Act 2020, which now includes a requirement that the director of the relevant department is supposed to consider climate change issues (Interview 6).

5.4 INTERNATIONAL ENGAGEMENT

Policy stakeholders invoked a number of international institutions and developments in discussing climate change impacts, adaptation policies, and climate

change loss and damage. This included discussion of regional developments; the role of the sustainable development goals; finance, including climate finance, development aid, and concessionary finance; and UN bodies including the UNFCCC, the United Nations Development Programme (UNDP), and the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS). This section deals with these in turn.

5.4.1 Regional Developments

Regional developments and leadership on the impacts of climate change were highlighted by several policy stakeholders. One research participant who was particularly attuned to international developments highlighted the role of the prime minister of Barbados, Mia Mottley, and her calls for a multidimensional vulnerability index which will allow for the inclusion of more than just income-based criteria to assess eligibility for concessional finance, for example, after a major storm (Interview 3). Because many SIDS have middle-income status, they are often excluded from certain forms of financing but face risk and vulnerability; the proposed index would take those risks and vulnerabilities into account in funding decisions. In August 2020, the UN secretary-general committed the UN to advocate for SIDS on the issue of access to concessional finance and in November 2020 called for the development and coordination of work within the UN on a multidimensional vulnerability index. While highlighting this progress, the research participant also noted that The Bahamas could do more to take "the leadership role regionally and in a more vocal and consistent and deliberate way" but in general was "really happy that we've had Caribbean leadership on this," and noted that "it's CARICOM [Caribbean Community] acting as a unit and sometimes CARICOM doesn't act as a unit" (Interview 3). Another interviewee from the DEPP also spoke about more micro-level collaboration on a regional level:

> One of the things I like about the DEPP is that we learned a long time ago very little that we are faced with is new. There are certain uniquenesses because of our geographical location and no two places in the world are exactly alike, but very little is new. By developing the right partnerships, the right cooperation, you'd be surprised at how many times I sat down and looked over and said, "Wait a minute." I open my laptop and send an email to a colleague in Antigua or a colleague in Bermuda and say, "Didn't you have a project something similar along this line and had something similar to this? How did you deal with that?" (Interview 5).

5.4.2 Finance

The most common way in which interviewees invoked the international dimension was through the discussion of financing – including difficulties accessing it and the opportunities new forms of climate finance represented for The Bahamas. The first issue was the challenge of accessing the types of funding and

technical cooperation that are available for countries that are eligible for official development assistance. An interviewee noted, "As a high-income country, we aren't allowed to access certain types of technical cooperation. We're not entitled to receive low interest rates. We're not really entitled to debt forgiveness," but they also noted that this puts the country at a disadvantage because this is based on an understanding "that there are no external shocks that we have to deal with on an annual basis or twice per annum" (Interview 3). The individual said that real progress on climate change loss and damage would result in a change to this situation: "We're talking externally about this loss and damage conversation, and that's where the real impact will be because, if we're assessed fairly by these international agencies and international partners, it means that we can then access resources that are otherwise unavailable to us" (Interview 3).

However, interviewees from across different departments and sectors were aware of opportunities to access climate finance at the international level. An interviewee from the Ministry of Environment and Housing noted that "climate financing at the international level" is an opportunity "we are fully tapped into as a country" (Interview 4). One interviewee from the Ministry of Agriculture and Marine Resources noted that the issue with finance was not so much a question of availability, suggesting that "there is funding out there to support" but that the challenge was "a matter of us aligning and having persons to work on these projects and to implement" (Interview 1). An interviewee from the Ministry for Tourism echoed the perception that there was funding available and that "it isn't like our government will have to put all of the money for these projects," but in contrast with the other interviewee they suggested that in the sustainable tourism department "we have enough capacity to be able to write grants, to help local small businesses" (Interview 2). Interviewees mentioned a wide range of sources of funding, including the World Bank, the IDB, the Caribbean Development Bank, the Global Environment Facility, the Adaptation Fund, and the United States Agency for International Development (USAID). One interviewee suggested that SIDS are increasingly encouraging the key financial institutions to change their policy to focus more on adaptation:

> Most of those funds give you money for mitigation and for the after-effect of a [hurricane] Dorian, but they're now beginning to realize if we give them money for adaptation, the impact when there's damage done by a Dorian could be lessened and therefore lessen the strains on their own financial place. So that is the approach and how we do certain things when it comes to loss and damage. (Interview 5)

5.4.3 The UNFCCC and Other International Organizations

None of the policy stakeholders we spoke with explicitly mentioned the UNFCCC's work on climate change loss and damage or adaptation. The UN

climate body was alluded to by one interviewee in relation to The Bahamas' reports to the UNFCCC, and another had been involved in the COP process. At the time of our discussions, an interviewee from the Ministry of the Environment was developing the third national communication to the UNFCCC and suggested that the reports are valuable for identifying and correcting problems and for developing partnerships: "Those reports help us highlight the weaknesses in our climate evaluation program and where we need to make improvement. It's because of those reports we now see where we're falling short and we're making the strides to correct it. In doing that, we've developed strategic partnerships with different people who have this knowledge and experience" (Interview 8). Another interviewee noted that the broad topic of loss and damage had come up when The Bahamas acted as the SIDS' focal point to the UN-OHRLLS but otherwise was not typically used:

> This issue came up … the term "loss and damages" isn't something that's commonly used by individuals who were engaged in that particular conversation. … We usually use terms such as "the impacts" or "the fallout," but "loss and damage" is not something that I typically hear individuals use. (Interview 3)

Other international organizations that were mentioned in discussions about climate change impacts were the UNDP, the Food and Agriculture Organization, and the International Union for Conservation of Nature (IUCN) (Interviews 6, 9, 10).

Several interviewees noted the gap between discourse on the international and national levels on loss and damage. One said: "We're not going to treat something as problematic, if to us it hasn't been framed as an existential threat. It's one thing to say that at an international meeting and it's another entirely to come to The Bahamas and start talking about [it]" (Interview 3). The interviewee elaborated further that this was not just an issue on the climate change front:

> It's important for us to make sure that there's a connection between national dialogues and national policies, as well as the international and regional conversation that happens because we can say on the international stage, and we often do say that we need to take this into consideration. We need to do this, we need to do that. We say this about human rights. We say it about gender equality. We say it about climate action. Yet there appears to be very little done on the ground in terms of prevention and adaptation. (Interview 3)

Finally, the interviewee noted that one of the reasons useful ideas may not be incorporated is because of the country's small population and its tendency toward localism: "The Bahamas is a very tiny society and one of the challenges is when something seems foreign or external, it's not readily taken up" (Interview 3).

5.5 INSTITUTIONS

Climate change impacts have disrupted the institutional landscape in The Bahamas by changing the configuration of relevant bodies and empowering

existing and newly established institutions to make climate-related policy. In the aftermath of Hurricane Dorian in 2019, a crop of new institutions emerged, and there were significant shifts within and between existing departments and ministries. Civil society organizations have similarly been forced to rethink their existing policies to better deal with impacts, and to engage more directly with policymakers.

5.5.1 Interministerial Dynamics

Historically climate change policy was the responsibility of the BEST Commission of the Ministry of Environment and Housing, which was established in 1994 and managed the implementation of multilateral environment agreements (including the UNFCCC and the Convention on Biological Diversity). Until recently, the BEST Commission was responsible for reviewing environmental impact assessments and environmental management plans for development projects within The Bahamas. In order to coordinate The Bahamas' national response to the issue of climate change at the local, national, regional, and international levels, a National Climate Change Committee (NCCC), comprising government and nongovernmental representatives, was formed and first convened in March 1996 as a subcommittee of the BEST Commission (The Commonwealth of The Bahamas 2001).

Since 2019, a number of notable changes within and between ministries show how The Bahamas is bringing concerns about climate change impacts closer to the heart of government action. Two significant innovations are notable. First, in the aftermath of Hurricane Dorian in 2019, The Bahamas created a dedicated Ministry of Disaster Preparedness, Management and Reconstruction – the first ministry of this type in the region. On its launch in 2021, Pakesia Parker-Edgecombe, the first minister of state for disaster preparedness, management, and reconstruction, noted: "We are a coastal nation and amidst climate change, we recognized the need for focused attention in this sector. It is a proactive approach, rather than that of reaction" (Coakley 2021).

Second, the Department of Environmental Planning and Protection (DEPP) was developed to replace the BEST Commission. This department was granted new statutory powers that go beyond advising on projects and developments (Interviews 4, 5). For example, it has been developing relationships with several other departments to tackle different types of environmental issues: the Environmental Health Services Department concerning land-based pollution; the Port Department concerning marine-based pollution; and the Department of Marine Resources concerning threats to coral reefs and marine resources. One stakeholder from DEPP noted, "We are like an octopus. We have eight arms and each arm is … holding someone else's hand" (Interview 5). Reflecting on the new department's statutory powers, she also said:

> Now that we can actually say no and have the law to back us up when we say "no that's how climate change is impacting us." … Before we could only advise, and we could be overruled by other agencies with statutory powers. We now have those same statutory powers so we can say "no," and the law and the facts are on our side. (Interview 5)

Unsurprisingly, there is variation across and within ministries in terms of the extent to which climate change and climate change impacts are considered in policy development and implementation. Ministries that were seen by at least one interviewee to have "come on to the fact that we need to do things to counteract climate change" (Interview 1) included: the Climate Change Unit; the Ministry of Environment and Housing; the Sustainable Development Goals Unit in the Office of the Prime Minister; the Ministry of Transport, because of the large marine transport network and The Bahamas ship registry; the Ministry of Tourism, because of the impacts of storms on the industry; the Ministry of Works; the Department of Meteorology; the National Emergency Management Agency, because of its role in disaster preparedness and response; the Ministry of Agriculture, which has its own climate change policy and was using climate smart approaches in their work; and the Ministry of Education, which is incorporating climate change and adaptation in the curriculum (Interviews 2, 3, 5, 7).

Among policy stakeholders the perception is that beyond those entities identified as taking a more proactive approach to grappling with climate change impacts the response to climate change is more reactive and driven by disaster responses (Interview 3). Research participants also mentioned the Office of the Prime Minister and the Ministry of Finance as stakeholders in dealing with climate change impacts, but one interviewee noted that loss and damage as an issue "tends to fade into the background" in those entities because of the "million other priorities." The interviewee also suggested that, going forward, the Ministry of Finance and the Ministry of Financial Services, Trade & Industry and Immigration "is going to have a lot to say with respect to this [the topic of loss and damage]" (Interview 3).

Within The Bahamas, one of two mechanisms seemed to account for increased attention within government ministries to climate change and climate impacts. The first operates at the individual level and focuses on variation in attention to the issues among individuals (Interview 3 and see also Thomas & Benjamin 2018b). One interviewee noted that "you have some individuals within the cabinet who are incredibly … they're staunch on preserving the environment and addressing climate change. There are others who have different priorities" (Interview 3). On loss and damage specifically, the interviewee observed that "you see it happening in pockets, you see it happening where interested persons happen to be located," but noted that the "deliberate, holistic approach that is needed – we don't see it there yet" (Interview 3). A second mechanism concerns generational change within the civil service and among the political elite. Here, the interviewee suggested that some of the senior technical officers within the civil service "aren't really interested or … don't really

know about certain issues" and that therefore "you don't find that trickle up effect that you would like to see" (Interview 3). She also noted that the conversation about loss and damage "needs to be had by everyone. You need not only the policymakers who are in an office today but those who are coming up" (Interview 3).

Interviewees identified some institutional barriers to climate impacts being considered more coherently across ministries (Interviews 7, 10). One external stakeholder noted that The Bahamas "has a serious problem with the different agencies not speaking to one another … you'll have one agency doing something moving in a particular direction and then you have another agency basically undoing all that work" (Interview 10). Another interviewee also claimed that climate change has been "kept in the silo" and can be seen as something for DEPP to deal with, but the participant also noted that the NCCC has changed that perspective and "brought all the stakeholders to the table" to "address climate change adaptation and mitigation in a holistic manner" (Interview 2). Another barrier, linked to this discussion, concerns barriers within the civil service in terms of attention to the issue at different levels. One research participant suggested that the civil servant's role entails "trying to convince other officials that these are valuable and valid ideas and solutions" and then noted that when "validity" is linked to seniority in terms of the amount of time one has served in the civil service that can serve as a hurdle (Interview 3).

5.5.2 Civil Society

Stakeholders also identified changes within civil society in response to climate change impacts in The Bahamas. One of these changes concerns the increase in formal opportunities for climate change-related civil society organizations to engage with policymakers. For example, when the NCCC was first established in the mid 1990s it was composed of members from the Chamber of Commerce and the Association of Professional Engineers, highlighting the development orientation of the committee. Environmental organizations were notably absent (The Commonwealth of The Bahamas 2001). However, this has changed over time, and now the key environmental protection organizations in The Bahamas, including The Bahamas National Trust and the Nature Conservancy (TNC), sit on the NCCC. One external stakeholder noted that by sitting on committees like the NCCC, they are seeking to "build rapport with the government as much as possible" but one of the things they need to do "is help with educating policymakers" and "provide good information to the different agencies so that they can make better decisions" (Interview 10). Another interviewee reflected that civil society organizations, due to their independence from government, are more able to speak out on certain issues and to promote making "smart decisions on climate change" and are sometimes asked to do so by civil servants whose "voices are pretty much tied" (Interview 10).

New partnerships across civil society are also being forged. Research participants from the Red Cross Bahamas and TNC spoke about beginning to work together for the first time to better adapt the Red Cross's humanitarian work in The Bahamas to climate change. This partnership includes thinking about how to integrate ecosystem restorations and nature-based solutions into the Red Cross's work to help protect communities (Interviews 7, 11). Conversely, the partnership work has prompted TNC to shift as well. While the organization's main priority has been mainstreaming nature-based solutions, an interviewee reflected that community resilience was also a consideration: "As a result of the impacts that we've seen … it has caused us to change the lens through which we see some of this work and focus more on the community resilience aspect. How can we help the people be more resilient in terms of livelihood shifts and community adaptation plans?" (Interview 7).

The impacts of climate change are also shaping civil society organizations in terms of changing the needs of the service-user base. For example, a participant from the Red Cross noted that in addition to the growing severity of extreme weather events and disasters like Hurricane Dorian they were also dealing with slow onset hazards and related humanitarian issues: "We are having some temperatures in July and August that we have not seen before. Persons who may be homeless or need water or something of that nature impacts the Red Cross because we are out there assisting. … So climate change has an impact on us as a humanitarian organization" (Interview 11). The Bahamas National Trust had also suffered losses. For example, impacts on physical structures such as the parks office on Abaco island which had been devasted by Hurricane Dorian meant that the organization's "ability to manage national parks on that island pretty much vanished" (Interview 10). The TNC also noted that the nature of climate impacts was changing the types of projects they pursue. For example, changes in sea temperatures, sea-level rise, or major storms like Dorian can reverse certain conservation benefits that may be gained from projects and have caused the organization to rethink what kinds of work they should do (Interview 7).

5.6 IDEAS

Many research participants identified Hurricane Dorian as a critical turning point in cultivating a deeper understanding of the impacts of climate change in The Bahamas. For those that have been deeply invested in work on climate change, there was a palpable sense of relief about this silver lining to the disaster: "For all of the unfortunate things that Dorian did — and it did a lot of damage and caused a lot of havoc and a lot of pain to people — it also brought some realizations. … We have to do something to put us in a better place to improve the risk that we face from such destruction" (Interview 11). Another interviewee noted that immediately after a hurricane levels of concern about climate change are "at a ten" on a scale of one to ten, but then, "as we

start to recover and get comfortable it might go down to maybe three or four" (Interview 6). Another research participant also noted the increased attention to climate change around storms that is then often forgotten:

> I think it's important to highlight that climate action is something that needs to be at the fore and it tends to take a backburner. It's not something that's elevated beyond and outside of sudden onset events. So, I think that's one of the biggest hurdles, when people start to buy into it, people are going to expect MPs to do more and policymakers to do more and they'll start to demand it. Until then, I think we're going to react to each hurricane as though it was something brand new. (Interview 3)

In interviews several civil servants raised – without being prompted – research that has shown relatively low levels of public awareness of climate change in The Bahamas (Interview 8 and see also Thomas & Benjamin 2018b). Some civil servants reflected on how this impacted their policy work. One interviewee from the tourism sector noted the difficulty of working with local stakeholders who do not necessarily understand the possible extent of climate change impacts: "How do we work with local stakeholders to ensure that they understand the ramifications of climate change? A lot of them only link climate change to extreme events … they have a really narrow perspective of what climate change is and this hinders their ability to implement adaptation management to mitigate damage on their property" (Interview 2). One interviewee noted that their unit was seeking to educate Bahamians about the issues the country is facing "so that it's not a shock to Bahamians when we get another category five storm. Or it's not a shock to Bahamians as we see sea levels are rising and we're losing some beaches due to coastal erosion" (Interview 8). Previous research has found that perceptions of climate change risks in The Bahamas are mostly related to hurricanes, with Bahamian residents being less aware of other climate hazards (Thomas & Benjamin 2018b).

5.6.1 Knowledge

Previous research has highlighted the lack of data and evidence on climate change loss and damage in SIDS (Petzold et al. 2018; Thomas & Benjamin 2018a). Research participants discussed the types of knowledge and evidence that they rely on in policy work on climate change impacts. The forms of knowledge mentioned most frequently included natural science data, social scientific studies, and sector, local, or community-based knowledge. This ranged from information from coral reef biologists, fish biologists, bird biologists, and botanists to social scientists studying topics like economics and awareness of climate change (Interview 10). One nongovernmental organization (NGO) interviewee highlighted how these different forms of data can complement each other: "So in a project to identify new areas in the marine protection plan and to understand areas of mangrove expanse and coral reefs, there was one prong to identify a gap analysis of where more scientific

research was needed, and another prong involved engaging with local community stakeholders and relying on the local knowledge." (Interview 7). She identified the types of questions that were being asked across the project: "What are the areas that are important to you? Where are the nursery areas? Where are the breeding grounds? Where are the culturally relevant or historic areas that you want to see protected? And then all of that information gets merged together" (Interview 7). Interestingly, interviews suggested that stakeholders from external organizations were moving, in terms of their knowledge generation work, toward a greater interest in the interrelationship between climate change impacts and the resilience of communities. For example, a research participant speaking about the TNC noted that the organization provides information and evidence for policymakers including providing technical assistance to local government agencies (Interview 7). She noted that the organization is interested in undertaking vulnerability assessments and evaluating the adaptive capacity of communities to inform policy inventions and shape priorities (Interview 7).

Several research participants extolled the value of community-based data sources. One noted that it is "underrated and because it's not standardized oftentimes we dismiss it" (Interview 3). Another suggested that this type of information from the community was particularly valuable for gaining a historical perspective on climate patterns and impacts:

> Science is good. GIS locations and drone footage and cameras, well and good. A valuable asset, but that historical knowledge is something that we need greatly … Don't tell him I said this, but one of the best sources of environmental and historical information for New Providence is [name anonymized]. I can sit down and listen to that man talk about the history and the impact of storms and … how it causes change for hours. That is something that a lot of people don't take as important, but the historical information and the historical changes that they have seen and they can provide … it allows you to make an informed decision. (Interview 5)

Another research participant provided an example of an organization that had been delivering capacity-building and self-esteem workshops on gender equality issues but, as a result of work on the ground, switched its focus to producing and distributing dignity kits to girls and women who had been displaced in the aftermath of Hurricane Dorian because they did not have a supply of clean underwear and menstrual hygiene products (Interview 3).

Another stakeholder working in a government ministry on climate change discussed their reliance on people who work across the different industries affected by climate change, saying they "are able to feed to us what they are experiencing over the last thirty years … and so we listen to the locals, those who are actually working in the fields" (Interview 8). A participant from the Ministry of Agriculture and Marine Resources also noted that they have a fisheries advisory council, which includes fishers and representatives from NGOs and other government departments, which is a useful source of information to

"address any issue including climate change" (Interview 6). Another research participant working in the Ministry of Environment and Housing noted that the recent introduction of the requirement to undertake environment impact assessments for all projects provides more systematized forms of information which is collected into a database but suggested that this type of knowledge is often held by locals. She provided the example of discovering through this process that there was a blue hole (an ancient limestone cave carved into the ocean floor) in East Grand Bahama which the department was unaware of until they started clearing the area for the development project. She said, "Some of the inhabitants in the area might have known because the kids might have gone there to play, but we didn't know there was an actual blue hole there that [had] connection to the ocean" (Interview 5). Relying on this form of data can also enhance the legitimacy of policy work. One research participant noted that the people who "work on the ground, who can speak most passionately about these issues, because this is their daily reality, are often left out of the conversation. One of the things we're trying to do now is bring those voices into the conversation" (Interview 3).

5.6.2 Knowledge-Related Barriers and Opportunities

The existence of knowledge itself is not sufficient to drive policymaking on climate change impacts and, as previously discussed, political will was identified by many participants as a key hindrance, preventing knowledge about climate change impacts translating into policy action. As one interviewee from an external organization noted: "There's one thing to have the knowledge, the next is to actually have the will to make the difference to help make everything function better in the face of a changing climate" (Interview 10).

Research participants identified three barriers in terms of the generation of knowledge and the consideration of evidence about climate change impacts in policy development. First, interviewees suggested that there are gaps in data because of insufficient resources and/or capacity to gather the data. One research participant said, "There is a lot of data that we would like to have at our fingertips to help make decisions, but a lot of that isn't readily available so you have to actually go out and collect this data" (Interview 7). Another emphasized the lack of long-term data:

> We don't have much data, that is, strong, long-term data that can help us. I think this is going to be an ongoing challenge until The Bahamas really gets on top of … we need to do better with keeping track and monitoring certain types of data that's going to help to inform the way we view climate and its impacts on The Bahamas. (Interview 4)

Second, several research participants suggested that even where data may exist, they are often not accessible and/or translated into better policy decisions (Interviews 1, 3, 7). One research participant observed that "a lot of that isn't readily available … there isn't one central repository of information where this

data is housed where you can readily access it" (Interview 7). Another research participant offered a perspective from inside government departments, arguing that "we can't share those [data sources] externally," and then went on to link this with low levels of public awareness about climate change, suggesting that "information is so key but I don't know that as citizens we actively pursue that and, as a government, I don't know that we make these sources readily available" (Interview 3). She went on to note that where the administration "falls short" is in "producing timely relevant data on certain issues" (Interview 3).

Third, research participants also highlighted some of the challenges of translating the insights of scientific research for their policy work. For example, one research participant working in the tourism sector cited research that shows that if temperatures increase too much there will be a decline in tourism from Europe because "they will be unable to bear the temperature when they come to certain destinations" (Interview 2). He asked, "So how do we take science and apply it to the social aspect of tourism and also to the economic aspect of tourism?" (Interview 2).

Several interviewees suggested that there is a greater role for the University of Bahamas in these considerations (Interviews 1, 10). One argued that "our universities have not been as active as they should" (Interview 1), and another said, "It would be really great to see UB [University of Bahamas] getting involved in much more research, trying to figure out what is going to make our coastlines more resilient, for example, what works in Bahamas specifically" (Interview 10). This research participant emphasized that local data is best collected by national institutions, providing a specific example of mangrove restoration:

> With climate change everything is so site specific. There's only so much other countries can show us. At the end of the day, we really need more research on the ground in country to be able to discover what real adaptation means for our specific scenario. … If I go to Trinidad, they will advise "oh, you don't need to plant mangroves, you just fix the place and make it appropriate and it'll self-recruit and in two years you have a forest." That is not the case for The Bahamas, we have extremely slow growing [mangroves], we're very nutrient deficient. We have a different scenario. (Interview 10)

The interviewee gave another example of the numerous events and trainings she had attended where it was suggested that stakeholders should retreat from the sea, which is impossible given The Bahamas' geography: "We live in tiny flat islands. I have no highland to go to, so during a major storm that sea is coming into my house in any event. So we really need to figure this stuff out on our own" (Interview 10).

The research also identified several opportunities in relation to knowledge generation and dissemination. One NGO research participant noted that "most of the data that we collect can be utilized for climate change work, even if it's not climate specific data," and then provided an example of a project mapping coral reefs in the region. This project relies on satellite data, data from drones,

and information from other tools in the water to mark temperature changes and currents (Interview 7). Another research participant saw the aftermath of hurricanes as critical opportunities to collect data:

> [It was] a sad day in Bahamian history for the lives lost and damage done, but from a scientific and record-keeping standpoint, for the government of The Bahamas, it was a blessing because the data that came out of it, the information we obtained … [about] the impacts on our freshwater lens, our forests, our coastal environments, that's going to last us forever. (Interview 5)

The interviewee noted that post-Dorian information is now being used to develop land-use plans and coastal engineering policies (Interview 5). An interviewee from an external organization also noted that Hurricane Dorian "presented us with a great opportunity to really get in and do a bunch of research and figure out how these severe storms are impacting us" and said that the organization will use the same methodologies to monitor the recovery rates from this kind of storm (Interview 10).

5.7 CONCLUSION

Table 5.1 synthetizes the main results from our analysis along the four dimensions of the analytical framework we developed in Chapter 2. It shows that while The Bahamas does not have an explicit policy on loss and damage, it was nonetheless an early adopter of a domestic adaptation policy, suggesting cross-governmental awareness of the impacts of climate change. This awareness grew substantially after Hurricane Dorian through the establishment of new institutions and the empowerment of others. These developments suggest that there is some political will – if not evenly distributed across government ministries – to begin to grapple with the issue. However, interviewees did not show a clear understanding of the differences between adaptation and loss and damage policies (e.g., Interviews 2, 3, 5, 7, 10, 11). For slow onset events in particular, interviewees highlighted the need to prepare for impacts and identified actions that are more aligned with adaptation rather than loss and damage. However, for extreme events including hurricanes, interviewees identified the need to respond after disasters take place, more aligned with addressing loss and damage. Efforts to increase understandings of adaptation, loss and damage, and the interlinkages between them may be helpful in advancing loss and damage policy.

The research identified a number of barriers to more work on loss and damage taking place. This included both the nature of policymaking in this area with public awareness continuing to be seen as a challenge – particularly in relation to slow onset events – and institutional features such as siloed policymaking and a gap between the development of ideas and policies and their implementation. While the research suggests that there are significant knowledge gaps both in the generation of new knowledge and access to existing

TABLE 5.1 *Summary of The Bahamas*

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
• Sea-level rise and accelerated erosion of coastal zones • Flooding from heavy rainfall • Threats to freshwater sources because of saltwater intrusion • Water scarcity and threats to underground water • Increased frequency and intensity of hurricanes • Coral reef destruction • Spread of vector-borne diseases	• NCCC (mid 1990s) • National Policy for the Adaptation to Climate Change (2005) • Disaster Preparedness and Response Act (2008) • EPPA (2019) • National Energy Policy (2013) • Forestry Act (2014 amended) • Carbon Credit Trading Bill (2022) • No explicit policy to address loss and damage at national level • First NDC (2016)	• CARICOM, finance-related (sources of funding, including the World Bank; the IDB; the Caribbean Development Bank; the Global Environment Facility; the Adaptation Fund, and USAID), less mentions of UNFCCC, UNDP, UN OHRLLS, Food and Agriculture Organization, and IUCN • Partnerships with a private cryptocurrency company to develop a carbon exchange • Limited awareness and engagement with the UNFCCC	• Climate change and related extreme events have an institutionally disruptive impact (especially Hurricane Dorian in 2019): establishment of a new Ministry of Disaster Preparedness, Management and Reconstruction; strengthening of legal framework for environmental protection, growing awareness among civil society organizations that climate change and its interconnections with various forms of vulnerability should shape their activities • Variation across and within ministries in terms of the extent to which climate change and climate change impacts are considered in policy development and implementation • Some ministries are climate change conscious and proactive (e.g., Climate Change Unit; Ministry of Environment and Housing; Sustainable	• The country was cutting edge in terms of thinking about climate change impacts – adopting a national policy on climate change adaptation in 2005 but mitigation has been prioritized over adaptation and loss and damage • Recognition of the importance of public and elite awareness as well as political will to address climate change and implement existing policies ○ Still relatively low levels of public awareness of climate change and hazards • Relevant knowledge types: natural science data, social scientific studies, and sector, local, or community-based knowledge

(*continued*)

TABLE 5.1 (*continued*)

Key climate change hazards, risks, and impacts	Key policies in adjacent policy domains	International influences	Institutional insights	Ideas
			Development Goals Unit in the Office of the Prime Minister; Ministry of Transport; Ministry of Tourism; Ministry of Works; Department of Meteorology; National Emergency Management Agency; Ministry of Agriculture) ◦ Other authorities are more reactive and driven by disaster responses • Increased attention to loss and damage also due to engaged individuals and generational change in the civil service • Barriers to more action: climate change still siloed issue; not enough inter-agency cooperation; seniority levels in the civil service and authority • Importance of civil society (e.g., to highlight and speak up on issues) but also increased pressure on civil society (e.g., what work should they focus on in times of increasing extreme events?)	• No clear understanding of the differences between adaptation and loss and damage policies • Significant knowledge/data gaps in both the generation of new knowledge and access to existing knowledge • But other forms of information – from the communities or sectors being impacted – can act as a useful supplement in some instances

knowledge, it also shows that other forms of information – from the communities or sectors being impacted – can act as a useful supplement in some instances. This indicates that gaps in knowledge need not be an impediment to policy development in this area.

The notion that a just response to climate change is one to be navigated at the international level runs throughout the data presented in this chapter, particularly for financial resources needed to respond to climate impacts. However, interviewees showed limited awareness and engagement with the UNFCCC, which is where loss and damage issues are being explicitly addressed at the international scale (Interview 3). Efforts to increase the understanding of how loss and damage is framed at the international scale, how this connects with national and local impacts, and more proactive engagement with the UNFCCC on loss and damage may also be helpful to advance loss and damage policy and action in The Bahamas.

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