

UNEP-DHI Centre  
on water and environment



## *SDG 6 IWRM Support Programme*

# Stage 1 Support Package: Annex 5: Stakeholder Consultation Report

SDG 6.5.1, degree of implementation of IWRM

## The Bahamas

September 2020



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Corporation  
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# Stakeholder Consultation Report for SDG 6.5.1

## Executive Summary

In September 2020, The Bahamas began the reporting process on Sustainable Development Goal (SDG) 6.5.1, the degree of integrated water resources management. Coordinated by the Water & Sewerage Corporation (SDG 6.5.1 Focal Point) with the support of GWP-C, The National Stakeholder Consultation took place over a two-week period from 2 September 2020 to 17 September 2020.

Due to the COVID-19 pandemic and associated regulations, the consultation was conducted virtually using videoconferencing and online survey platforms. Thirty-four stakeholders from various governmental, non-governmental, inter-governmental and academic organizations were invited to participate in the process. Of the 34 invited, 24 stakeholders participated in an informational webinar during which the Focal Point and Facilitator provided stakeholders with information on SDG 6.5 and the reporting process for SDG Indicator 6.5.1. At the end of the webinar, stakeholders were given the opportunity to voice preliminary concerns with water resource management in The Bahamas and provided with details for accessing the online survey instrument and supplemental reading materials on water resources management in The Bahamas.

Seven (7) stakeholders completed a digitized version of the “Country Survey Instrument for SDG Indicator 6.5.1.” Scores from the digital survey were averaged and the results were discussed with 20 stakeholders during a follow-up workshop. Because of the low completion rates of the survey, and concerns about the inaccessibility of the survey language, the Focal Point and Facilitator engaged in a deep analysis of the survey responses, identifying missing perspectives and major discrepancies in the data. The scores were then adjusted to more accurately reflect the status of IWRM implementation in The Bahamas and a proposed draft of the survey instrument was circulated to water management professionals for comment.

Overall, it was agreed that The Bahamas’ status in terms of integrated water resources management had improved since the 2017 baseline survey. In the baseline report, The Bahamas scored 33, which placed the nation in the medium-low category. According to the findings of the 2020 consultation process, there was an improvement in two of the four components – *Enabling Environment* and *Management Instructions*—increasing the country’s score slightly to 34. Improvement was greatest in the Management Instructions component, which increased from 36 to 40. This was mainly due to the increase in groundwater assessments and water quality checks after Hurricane Dorian in 2019. Improvements to the enabling environment were largely attributed to the creation of the Department of Environmental Planning and Protection (DEPP) which prioritizes “the integrated protection of the environment of The Bahamas” and “the sustainable management of [The Bahamas’] natural resources,” including surface waters, wetlands and groundwater.<sup>1</sup>

Despite the progress made in some areas, it was evident that there are still major barriers to the progress of IWRM in The Bahamas. Participants agreed that a lack of public awareness and participation in water issues, in addition to low resource allocation toward IWRM, were matters of significant concern. These

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<sup>1</sup> *Environmental Planning and Protection Act 2019*, s. 6.1 -2.

concerns are reflected in the decrease in the score of the *Institutions and Participation* and *Financing* components. The reasons for these decreases remain unclear, but decreases in the *Financing* score may be linked to trimmings in recent national budgets.

A copy of the completed survey instrument for 2020 reporting, can be found in a separate document “BHS\_6\_5\_1\_Survey\_11.18.2020.docx”

## **1. Conclusions from facilitated discussions on Section 1: ‘Enabling Environment’**

The critical policy framework for IWRM in The Bahamas exists, but has not been implemented. In 2007, the state-owned Bahamas Water & Sewerage Corporation (WSC) commissioned the creation of an IWRM Plan, which included policy recommendations and objectives for advancing IWRM implementation.<sup>2</sup> However, due to poor coordination and participation, The Bahamas is not succeeding in implementing this effort.

The Bahamas is struggling with major inter- and intra-sectoral fragmentation, resulting in weak water governance. As the country’s main utility provider, WSC has historically assumed responsibility for water resource management through their Water Resource Management Unit (WRMU). However, legislatively, water resource management is spread across a wide variety of government entities including, but not limited to, WSC, the Department of Environmental Health Services, the Ministry of Environment and Housing, and the Ministry of Public Works. The unclear institutional responsibility for water resource management has led to an overall lack of enforcement and implementation of existing IWRM plans, policies and strategies.

With the creation of the Department of Environmental Planning and Protection (DEPP) in 2020, water resource management is expected to become more centralized. As result, the score for the Enabling Environment component increased from 34 to 37 to represent the slight improvement in the enabling environment since 2017.

## **2. Conclusions from facilitated discussions on Section 2: ‘Institutions and Participation’**

As previously discussed, the fragmentation of the water sector remains a primary challenge to the implementation of IWRM in The Bahamas. There is some history of cross-sector consultation on water resources policy, planning and management, but many participants indicated that not enough is being done to facilitate cross-sector collaboration and engage the public on the status of water throughout the nation. There is limited IWRM capacity in a few institutions throughout The Bahamas, and engagement on the issue is sporadic.

The minor decrease in the score from 31 to 30 represents the lack of movement on this component since the baseline study. In 2017, following the XII Meeting of National Committees and Focal Points of the UNESCO International Hydrological Program for Latin America & the Caribbean (IHP-LAC) in Nassau, Bahamas, the

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<sup>2 2</sup> Management Committee of the Water and Sewerage Corporation, 2007: Report to Develop an Integrated Water Resources Management Plan for the Commonwealth of The Bahamas.

present parties agreed to establish a mechanism at the University of The Bahamas for the national dissemination of hydrological knowledge, but little has been done to advance this issue. Participants underscored the importance of the initiative, suggesting that increased public knowledge of water issues would promote transparency and accountability within the sector.

### **3. Conclusions from facilitated discussions on Section 3: 'Management Instruments'**

In general, The Bahamas suffers from a lack of accurate baseline data, which hinders the ability of decision makers and users to make rational and informed choices between alternative actions. Because the nation is an archipelago, national coverage is difficult. Therefore, the available data on freshwater resources in the nation is outdated, with the last comprehensive study completed in 2004.<sup>3</sup> Furthermore, although WSC monitors water quality, water availability and abstraction rates for the primary water reserve areas, access to information is limited to WSC and other connected entities.

Since 2017, there has been an increase in the "Management Instructions" score from 36 to 40, largely owing to the increase in water quality studies and projects throughout the nation. In September 2019, Hurricane Dorian ravaged the islands of Grand Bahama and Abaco, causing extensive damage to two of the nation's largest freshwater lenses. In the wake of the storm, water quality checks, groundwater quality assessments, and educational programming on the islands have all increased. For example, WSC has partnered with Water Mission and UNICEF on the *Abaco Sunny Waters* project, which includes a social outreach program to teach school-aged children about the importance of sustainability and pollution prevention.<sup>4</sup> This program, if successful, could provide a guide for public education and awareness campaigns throughout The Bahamas.

### **4. Conclusions from facilitated discussions on Section 4: 'Financing'**

Lack of financing remains a major obstacle to IWRM implementation in The Bahamas, as evidenced by the decrease in the financing score from 33 (2017) to 27. As the nation's primary water provider, the Water & Sewerage Corporation (WSC) has provided the impetus for IWRM planning in the past.<sup>5</sup> However, due to high levels of non-revenue water (NRW) and customer arrears, WSC finds itself in a dire financial situation which leaves the Corporation without the human and financial resources needed to drive IWRM implementation forward.<sup>6</sup>

A key issue for formatting a financing plan for IWRM is reconciling the often-competing goals of economic efficiency, social equality and environmental sustainability.<sup>7</sup> As a state-owned entity, WSC's tariffs and prices are subject to political pressures. Therefore, most stakeholders support the creation of an independent water utility regulator to monitor the industry and set tariffs in a reliable, and evidence-based manner. The Utilities Regulation and Competition Authority (URCA) was created in 2009, and already has a framework in place to

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<sup>3</sup> US Army Corps of Engineers, 2004: Water Resources Assessment of The Bahamas

<sup>4</sup> Water and Sewerage Corporation, 2019: Abaco Sunny Waters – Project Strategy

<sup>5</sup> WSC, 2007: Report to IWRM Plan.

<sup>6</sup> Caribbean Development Bank, 2014: Assessment of the Water Sector in the Caribbean – Prepared by Cole Engineering;

<sup>7</sup> WSC, 2007: Report to Develop IWRM Plan, p. 49.

monitor electronic communications and electricity. Expanding URCA's mandate to include water utilities may be an effective way to leverage local systems to achieve high implementation by 2030.

## 5. Next steps

With the development of the 2007 IWRM Plan and the enactment of the Environmental Planning and Protection Bill (2019), The Bahamas has made impressive legislative and policy strides towards integrated water resources management, but implementation is lacking. Considering the current frameworks, The Bahamas has the potential to achieve a high implementation status by 2030. However, it requires large scale structural reform, particularly within the various government agencies responsible for water resources policy, planning and management.

Stakeholder opinion varied greatly on issues related to national laws, policies and plans to support IWRM, as well as the status of national government authorities to support IWRM implementation. The gap in stakeholder opinion appeared to be the result of the lack of public awareness of laws, policies and procedures, as water professionals tended to give higher scores in these categories than activists and researchers. Similar score variability was noted on questions related to sub-national policy and procedure. Because The Bahamas is an archipelago, many stakeholders have location-specific knowledge of water resources management, limiting their ability to speak on subnational water resource management nationwide.

Therefore, critical next steps for furthering IWRM implementation in The Bahamas, as identified during the consultation, are as follows:

- **Reduce inter-sectoral and intra-sectoral fragmentation.** Responsibility for water resource management in The Bahamas remains fragmented across several government institutions with limited communication between stakeholders. One of the primary constraints to IWRM implementation in The Bahamas, therefore, remains the limited integration between the water sector and other sectors, in particular, the environment. Because of this extreme fragmentation, The Bahamas also suffers from a lack of comprehensive, updated, and publicly-available water resources data. Reducing fragmentation is, therefore, the first and major step towards increasing IWRM implementation throughout the archipelago.
- Encourage the government to move forward with plans to **create an independent water utility regulator.**
- **Establish periodic consultations with stakeholders.** It was evident throughout the consultation that stakeholders were generally unaware of not only the status of public IWRM initiatives, but also what other stakeholders were working on. Establishing regular communication with stakeholders would facilitate coordination and collaboration on IWRM issues, potentially leading to more efficient allocations of the nation's human and financial resources.
- **Increase public awareness of water resources issues.** Public education is needed to increase accountability and promote transparency in water resources management. Furthermore, through regular engagement, IWRM practitioners can build meaningful connections with the public to better address their needs and concerns.
- **Allocate more human and financial resources** toward the advancement and implementation of the 2007 IWRM Plan.



## ANNEXES

Annex 1: List of Participants

Annex 2: Agenda

Annex 3: Facilitator's Comments

Annex 4: Photos

### Annex 1: List of participants

#### Workshop participants

Name	Organization	Position	Email address
Albury-Smith, Shenique	The Nature Conservancy	Bahamas Program Director	<a href="mailto:salbury@tnc.org">salbury@tnc.org</a>
Armstrong, Kelli	Bron International	Project Manager	<a href="mailto:karmstrong@bebron.com">karmstrong@bebron.com</a>
Bevans, Deidre	The Bahamas National Commission for UNESCO	Secretary General	<a href="mailto:Dbevans7180@gmail.com">Dbevans7180@gmail.com</a>
Boyce, Cha	Friends of the Environment (Abaco)	Executive Director	<a href="mailto:chaboyce@me.com">chaboyce@me.com</a>
Cateyano, Evan	Inter-American Development Bank (Bahamas)		evanc@iadb.org
Chaves, Henrique	UNESCO IHP GRAPHIC Program	Regional Coordinator	<a href="mailto:chaveshml@gmail.com">chaveshml@gmail.com</a>
Cunningham, Aje	Bahamas Natural Resources Foundation	Chairman	<a href="mailto:acunningham@bahamasnaturalresources.org">acunningham@bahamasnaturalresources.org</a>
Driz, Anton	IsraAid	Global WASH Advisor	anton.driz@gmail.com
Duncombe , Sam	Re-Earth Bahamas	President	<a href="mailto:sam@reearth.org">sam@reearth.org</a>
Gibson, Jeannie	University of The Bahamas	Policy Assistant, Government & Public Policy Institute	jeannie.gibson@ub.edu.bs
Haley- Benjamin, Vanessa	Bahamas Sportfishing & Conservation Corporation	Environmental Consultant/Marine Specialist	<a href="mailto:haley.vanessa@gmail.com">haley.vanessa@gmail.com</a>

Jones, Brittney	Pan-American Health Organization	Bahamas National Consultant	jonesbri@paho.org
Lee-Look, Gabrielle	GWP-C	Communications Officer	gleelook@gwp-caribbean.org
Lewis, Simone	Grenada GWP-C	Regional Coordinator	<a href="mailto:Simone.lewis@gwp-caribbean.org">Simone.lewis@gwp-caribbean.org</a>
Odhiambo, George	University of The Bahamas	Assistant Professor, Chemistry	<a href="mailto:George.odhiambo@ub.edu.bs">George.odhiambo@ub.edu.bs</a>
Pyfrom, Jessica	Water & Sewerage Corporation	Technician, Reverse Osmosis Unit	wcjpyfrom@wsc.com.bs
Rassin, Barry	Rotary International	Trustee to the Rotary Foundation	barryjrassin@gmail.com
Sealey, Kathleen	RECYCLE Exuma	Founder & President	<a href="mailto:ksealey@miami.edu">ksealey@miami.edu</a>
Shiel-Rolle, Nikita	Cat Island Conservation Institute	Founder & CEO	<a href="mailto:nikita@shielrolle.com">nikita@shielrolle.com</a>
Sims, John	University of The Bahamas		<a href="mailto:John.sims@ub.edu.bs">John.sims@ub.edu.bs</a>
Smith, Miaya	Atlantis Resort & Casino	Water Quality Lab Manager	<a href="mailto:miayaamber@yahoo.com">miayaamber@yahoo.com</a>
Smith, Prescott	Bahamas Fly Fishing Industry Association	President	<a href="mailto:psmith@bahamsconservation.org">psmith@bahamsconservation.org</a>
Weech, Philip	University of The Bahamas	Assistant Vice President, Sponsored Research and Grants	<a href="mailto:Philip.weech@ub.edu.bs">Philip.weech@ub.edu.bs</a>
Welsh-Unwala, Kristen	University of The Bahamas	Programme Specialist, Small Island Studies	<a href="mailto:Kristen.unwala@ub.edu.bs">Kristen.unwala@ub.edu.bs</a>

### Other stakeholders engaged (not in workshops)

Name	Organization/Position	Email address	Summary of inputs (e.g. question number(s), or full survey)
Stacey Moultrie	SEV Consulting Group Ltd.	Environmental Policy & Planning Specialist	Assisted with revisions on the final survey submission

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Please note that this Annex is supplemented by information in Annex E of the SDG 6.5.1 survey instrument, which reflects on the level of engagement from different stakeholder groups.

## Annex 2: Agenda

The Commonwealth of The Bahamas  
SDG 6.5.1 Reporting Task Force

# INTRODUCTORY WEBINAR AGENDA

Location: Zoom link to be shared later.

Date: September 2, 2020

Time: 2:00 PM

Host: Mr. John Bowleg  
UNESCO-IHP Caribbean Focal  
Point

### Agenda Items

2:00 – 2:05 am	Welcome & Introduction	Mr. John Bowleg
2:05 – 2:10 am	Integrated Water Resource Management (IWRM) and SDG Indicator 6.5.1 <ul style="list-style-type: none"><li>- What is IWRM?</li><li>- IWRM in The Bahamas</li></ul>	Mr. John Bowleg
2:10 – 2:15	2020 Reporting Methodology <ul style="list-style-type: none"><li>- Timeline</li><li>- How to report?</li></ul>	Nia Cambridge
2:15 – 2:25	Introduction to the Survey Instrument and Supporting Documents	Nia Cambridge
2:25 – 2:35	Question & Answer	
2:35 – 2:40	Closing Remarks	Mr. John Bowleg

### Additional information

We kindly ask that you hold all questions until the Q&A session at the end of the webinar. If you have an urgent question that you feel should be addressed during the presentation, please use the (private chat/question and answer box) to communicate with the presenters directly.

# STAKEHOLDER WORKSHOP AGENDA

Location: Zoom link to be shared later.

Date: September 17, 2020

Time: 1:00 PM (EST)

Host: Mr. John Bowleg  
UNESCO-IHP Caribbean Focal  
Point

## Agenda Items

<b>1:00 – 1:05 pm</b>	Welcome & Introduction	John Bowleg
<b>1:05 – 1:25 pm</b>	Review of Survey Results <ul style="list-style-type: none"><li>- Changes in Overall Score</li><li>- Trends: Upward and Downward</li></ul>	Nia Cambridge
<b>1:25 – 1:30 pm</b>	Initial Comments	John Bowleg
<b>1: 30 – 2:30 pm</b>	Open Discussion of Results	Facilitated by Nia Cambridge
<b>2: 35 – 2:40 pm</b>	Closing Remarks	Mr. John Bowleg

### **Annex 3: Facilitator's Comments**

Because of the COVID-19 pandemic, the stakeholder consultation model was adapted to a fully virtual environment. While a digital consultation presented challenges, it made the consultation process more accessible to stakeholders on the Family Islands, who may not have been able to participate had workshops been held in Nassau.

Historically, IWRM discussions have focused on New Providence, where the majority of the nation's population and water demand is, with some attention on the major freshwater reserves in Andros, Grand Bahama, and Abaco. The inclusion of stakeholders from Andros, Cat Island, Exuma and Abaco provided invaluable insight into the waterscape of various islands in The Bahamas and shed light on the uneven application of water management policy and resources throughout the nation. Workshop participants, especially those representing water interests on Family Islands, were eager to share their knowledge and personal experience. As a result, both the introductory and follow-up workshops went well over the allotted time.

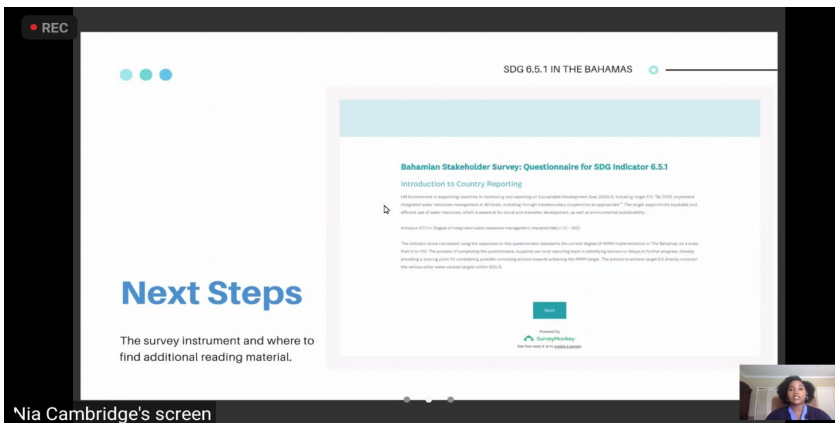
It should be noted, however, that the perception of stakeholders did not always match the factual progress of IWRM implementation in The Bahamas. Generally, stakeholders from civil society and private sector groups had a more negative assessment of IWRM implementation in The Bahamas than representatives from the national water agencies and research/academia. This can mainly be attributed to the lack of awareness and communication of IWRM initiatives locally, and may have resulted in harsher scoring throughout the consultation process. Supplementary reading material, including copies of recent legislation and IWRM plans, were distributed to all stakeholders in an attempt to address knowledge gaps, but stakeholder feedback suggests that much of the material was overwhelming.

More consideration is needed to structure the consultation process in a way that makes it accessible to all interested stakeholders and prevents stakeholder fatigue. Stakeholder participation during workshop discussions was high, but the online survey had a completion rate of less than 30%, with many stakeholders exiting before completing the first section. Furthermore, of the seven (7) stakeholders who completed the online survey, 72% were water professionals. The low survey completion rate, especially among non-water professionals, as well as stakeholder feedback, indicate that the survey language was inaccessible to the majority of stakeholders.

In future consultations, facilitators should consider grouping stakeholders according to their level of involvement and familiarity with IWRM in The Bahamas, and conduct pointed workshop sessions with these focus groups. This format would allow for the focal point and facilitator to ask targeted questions based on the stakeholders' area of expertise and provide more opportunities for smaller stakeholders to provide input.

Future consultation should also include more input from government ministries and agencies. In The Bahamas, water resources management and development are fragmented across a variety of governmental departments and agencies; however public sector representation during the consultation process was low. Outside of the Water & Sewerage Corporation, none of the invited public sector agencies responded to invitations to participate in large workshop settings.

## Annex 4: Photos



Nia Cambridge's screen

Figure 1. Facilitator, Nia Cambridge, instructing stakeholders on how to complete the online survey instrument during the Introductory Webinar on 2 September 2020.



Figure 2. Question and answer session during the introductory webinar on 2 September 2020.