



## **Meeting the Challenge of 2020 in The Bahamas**

### **Part I: Project Information**

#### **GEF ID**

9791

#### **Project Type**

FSP

#### **Type of Trust Fund**

GET

#### **Project Title**

Meeting the Challenge of 2020 in The Bahamas

#### **Countries**

Bahamas

#### **Agency(ies)**

UNEP

#### **Other Executing Partner(s):**

BEST Commission, Department of Marine Resources (DMR), Bahamas National Trust (BNT), The Nature Conservancy (TNC), Department of Agriculture

**Executing Partner Type**

Government

**GEF Focal Area**

Multi Focal Area

**Taxonomy**

Climate Change Mitigation, Climate Change, Focal Areas, Renewable Energy, Biodiversity, Species, Invasive Alien Species, Threatened Species, Protected Areas and Landscapes, Coastal and Marine Protected Areas, Biomes, Mangroves, Sea Grasses, Transform policy and regulatory environments, Influencing models, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Type of Engagement, Stakeholders, Consultation, Partnership, Participation, Information Dissemination, Beneficiaries, Local Communities, Individuals/Entrepreneurs, Private Sector, Civil Society, Academia, Community Based Organization, Non-Governmental Organization, Communications, Education, Awareness Raising, Behavior change, Gender results areas, Gender Equality, Participation and leadership, Gender Mainstreaming, Capacity Development, Capacity, Knowledge and Research, Learning, Knowledge Generation, Knowledge Exchange, Integrated Programs

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 2

**Climate Change Adaptation**

Climate Change Adaptation 0

**Duration**

60In Months

**Agency Fee(\$)**

593,085

**A. Focal Area Strategy Framework and Program**

<b>Objectives/Programs</b>	<b>Focal Area Outcomes</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
BD-1_P1	Improving financial sustainability and effective management of the national ecological infrastructure	GET	1,529,319	3,273,543
BD-2_P4	Prevention, control and management of invasive alien species	GET	1,529,319	3,273,543
BD-4_P9	Managing the human-biodiversity interface	GET	1,529,320	3,273,542
CCM-1_P1	Promote timely development, demonstration and financing of low-carbon technologies and mitigation options	GET	1,655,046	2,151,678
<b>Total Project Cost(\$)</b>			<b>6,243,004</b>	<b>11,972,306</b>

## B. Project description summary

## Project Objective

Management of Marine Protected Areas (MPAs) in The Bahamas strengthened and integrated into broader landscape planning in order to reduce pressures on ecosystem services and biodiversity from competing resource uses

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Integrated Natural Resource Management systems for marine protected areas and adjacent land / seascapes	Technical Assistance	<p>1.1 Better effective planning for conservation and sustainable development in areas encompassing MPAs obtained through information on ecosystem conditions and services</p> <p><i>Indicator: Number of institutions using the SDSS for cross-sectoral planning through input and data access (at least 4)</i></p> <p>1.2. Integrated natural resource management (INRM) framework supports the reduction of pressures on biodiversity from competing land uses in the wider landscape</p> <p><i>Indicators: Number of approved zoning plans for MPAs (5)</i></p> <p><i>Number of hectares of protected areas covered by ecosystem zoning plans (688,046 ha)</i></p>	<p>1.1.1: Spatially-based decision support systems for INRM are available for use in cross-sectoral landscape planning &amp; management and in policy and regulatory development</p> <p>1.2.1: Ecosystem-wide Zoning Plans developed and approved for areas encompassing 5 target MPAs</p>	GET	1,281,000	250,000

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
2. Effective Protected Area Management	Technical Assistance	<p>2.1. Improved PA management effectiveness at 5 MPA sites: Andros West Side, Bonefish Pond, Lucayan, Exuma Cays, and Moriah Harbour Cay (covering 688,046 ha)</p> <p><i>Indicators: 15% increase in PA Management Effectiveness Tracking Tool (METT) scores in each of the five sites over project period</i></p> <p><i>Number of new-updated management plans that incorporate landscape-level planning and finance strategies and are being implemented (5)</i></p> <p>2.2. Increased financial sustainability of the Moriah Harbour Cay and Lucayan National Parks</p> <p><i>Indicators: Number of online payment systems operational to receive payments (at least 1)</i></p> <p><i>Percentage increase in annual income from user fees (25% increase for LNP and 50% increase for MHCNP)</i></p> <p>2.3. Stable population numbers of the priority species in the targeted project sites</p> <p><i>Indicator: 10% increase in AGRRA assessment index for coral over baseline (live coral and sponges) and 10% increase for AGRRA assessment index for indicator fish species over baseline (grouper, spiny lobster and sawfish)</i></p> <p>2.4. 2,105,539[1] tCO<sub>2</sub>-eq emissions from buildings in protected areas are reduced (indirect and direct impacts)</p>	<p>2.1.1: PA Management Advisory Boards for recently established MPAs (Moriah Harbour Cay National Park and Lucayan National Park) established and provided with operational capacity</p> <p>2.1.2: Management Plans developed / updated and under implementation at 5 MPA sites</p> <p>2.1.3: Infrastructure established and staff deployed and capacitated at 5 MPA sites</p>	GET	4,249,618	10,852,639

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
3. MPA management integrated with sustainable development in the broader land / seascape	Technical Assistance	<p>3.1 Enhanced provision and appreciation of community of services from ecosystems in MPAs and surrounding areas as a result of:</p> <p>1) rehabilitation of degraded land</p> <p>2) changes in production sector practices leading to both development and conservation objectives</p> <p>3) long-term custodianship of communities of the ecosystems</p> <p><i>Indicators: 20% increase in Biodiversity Barometer survey score</i></p> <p><i>10 ha of land restores at BPNP and 90 ha at LNP</i></p> <p><i>100 ha under good agricultural practices (GAP)</i></p> <p><i>2 adoption schemes established with at least 30 participants</i></p>	<p>3.1.1: Reduced impacts from adjacent areas on MPAs through Invasive Alien Species (IAS) management and ecosystem restoration ( at least 100 ha)</p> <p>3.1.2: Reduced use of agricultural chemicals in areas containing sensitive biodiversity and crucial water resources</p> <p>3.1.3: Pilot communities and/or schools are supporting management of two MPAs (“adoption schemes”)</p>	GET	319,600	300,000

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
M&E	Technical Assistance			GET	95,500	21,000
Sub Total (\$)					5,945,718	11,423,639
Project Management Cost (PMC)						
				GET	297,286	548,667
Sub Total(\$)					297,286	548,667
Total Project Cost(\$)					6,243,004	11,972,306



**C. Sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Amount(\$)</b>
Government	Ministry of Environment and Housing	Grant	2,500,000
Government	Ministry of Environment and Housing	In-kind	500,000
CSO	Bahamas National Trust	Grant	3,816,307
CSO	Bahamas National Trust	In-kind	1,111,529
Others	Shedd Aquarium	Grant	1,695,500
Others	Shedd Aquarium	In-kind	392,970
Others	Perry Institute for Marine Sciences	Grant	300,000
Others	Perry Institute for Marine Sciences	In-kind	1,000,000
CSO	The Nature Conservancy	Grant	603,000
CSO	The Nature Conservancy	In-kind	3,000
Others	Caribbean Biodiversity Fund	In-kind	50,000
<b>Total Co-Financing(\$)</b>			<b>11,972,306</b>

Agency	Trust Fund	Country	Focal Area	Programming of Funds	NGI	Amount(\$)	Fee(\$)
UNEP	GET	Bahamas	Biodiversity		No	4,587,958	435,856
UNEP	GET	Bahamas	Climate Change		No	1,655,046	157,229
Total Grant Resources(\$)						6,243,004	593,085

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

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Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

Agency	Trust Fund	Country	Focal Area	Programming of Funds	NGI	Amount(\$)	Fee(\$)
UNEP	GET	Bahamas	Biodiversity		No	134,188	12,748
UNEP	GET	Bahamas	Climate Change		No	48,460	4,604
Total Project Costs(\$)						182,648	17,352

**Core Indicators**

**Indicator 2 Marine protected areas created or under improved management for conservation and sustainable use**

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	688,046.00	0.00	0.00

**Indicator 2.1 Marine Protected Areas Newly created**

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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**Indicator 2.2 Marine Protected Areas Under improved management effectiveness**

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	688,046.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
<b>Akula National Park</b> Andros West Side National Park	<b>125689</b> 555592585	<b>Select</b> Protected area with sustainable use of natural resources		607,028.00			56.00		<input type="checkbox"/>
<b>Akula National Park</b> Bonefish Pond National Park	<b>125689</b>	<b>Select</b> Protected area with sustainable use of natural resources		500.00			40.00		<input type="checkbox"/>
<b>Akula National Park</b> Exuma Cays Land and Sea Park	<b>125689</b> 2228	<b>Select</b> National Park		70,494.00			66.00		<input type="checkbox"/>
<b>Akula National Park</b> Lucayan National Park	<b>125689</b> 11841	<b>Select</b> Natural Monument or Feature		784.00			55.00		<input type="checkbox"/>
<b>Akula National Park</b> Moriah Harbour Cay National Park	<b>125689</b> 315003	<b>Select</b> Protected area with sustainable use of natural resources		9,240.00			29.00		<input type="checkbox"/>

Indicator 3 Area of land restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	100.00	0.00	0.00
Indicator 3.1 Area of degraded agricultural land restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	100.00		
Indicator 3.2 Area of Forest and Forest Land restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 3.3 Area of natural grass and shrublands restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	100.00	0.00	0.00
Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)			
Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	100.00		

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
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Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	0	1052769.6	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)				
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)		1052769.6000000001		
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting		2034		



Total Target Benefit		(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Duration of accounting		15			
Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)					
Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)	
Target Energy Saved (MJ)					
Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)					
Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)	
Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment					
	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)	
Female		53			
Male		52			
Total	0	105	0	0	

## PART II: Project JUSTIFICATION

### 1. Project Description

#### Changes to Project Outcomes, Outputs or Co-financing

PIF Text	CEO ER Text	Explanation for changes
Outcome 2.1 Improved PA management effectiveness at 5 MPA sites: Joulter Cays, Lucayan, Exuma Cays, Andros West Side, and Conception Island (covering 723,631 ha)	Outcome 2.1: Improved PA management effectiveness at 5 MPA sites: Moriah Harbour Cay National Park, Lucayan National Park, Exuma Cays Land and Sea Park, Andros West Side National Park and Bonefish Pond National Park	After concerns expressed by stakeholders during the Inception Meeting about suitability of sites identified in the Project Identification Form (PIF), a site selection meeting was held in December 2018 to confirm the priority sites for project interventions. During that meeting, stakeholders agreed that the following changes to targeted sites would be the best approach for identified priorities in MPA management - Conception Island National Park would be removed and Joulter Cays National Park would be replaced by Moriah Harbour Cay National Park. Moriah Harbour Cay is of national and global significance due to its high post-larval recruitment rates for Caribbean spiny lobster and Nassau grouper, the highest rates in The Bahamas. Designation of this site (and Bonefish Pond National Park) as a KBA in ongoing under collaboration between the Bahamas National Trust and Birdlife International
Outcome 2.2. Increased financial sustainability of the Joulter Cays and Lucayan National Parks	Outcome 2.2: Increased financial sustainability of the Moriah Harbour Cay and Lucayan National Parks	Moriah Harbour Cay replaced Joulter Cays as a priority site as indicated in explanation above. Moriah Harbour Cay does not currently have any sustainable finance mechanisms in place.
Output 2.2.1: Business Plans developed and under implementation for Joulter Cays and Lucayan NPs	Output 2.2.1: Business Plans developed and under implementation for Moriah Harbour Cay and Lucayan National Parks	Moriah Harbour Cay replaced Joulter Cays as a priority site as indicated in explanation above. Moriah Harbour Cay does not currently have a business plan; such a plan would assist in achieving financial sustainability for this park.
2.3. Stable population numbers of the Northern Rock Iguana in the Andros West Side National Park and Exuma Cays Land and Seas Park	Outcome 2.3: Stable population numbers of the priority species in targeted project sites	Concerns were expressed by stakeholders during the Inception Meeting over the species listed in the PIF; one species identified was not even found in the protected area listed. During the Validation Workshop, discussions with staff from BNT and DMR along with scientific experts resulted in identification of priority species for each park. These are provided in Table 11 below.

2.4.1: Up to 5 carbon neutral Marine Protected Area facilities (photovoltaic substitute for diesel generators (minimum 1,052,769.6 tCO <sub>2</sub> -equivalent direct emission reduction over 15 years): -Exuma park's visitors center -Andros West's fee collection booth -Bonefish Pond's visitors center -2 more facilities to be determined during PPG	Output 2.4.1: 3 carbon neutral Marine Protected Area facilities (photovoltaic substitute for diesel generators (minimum 1,052,769.6 tCO <sub>2</sub> -equivalent direct emission reduction over 15 years) for the ECLSP's visitors centre, Lucayan visitors centre, and Bonefish Pond's visitors centre	Following assessments by the Renewable Energy Specialist during the PPG phase, these sites were deemed feasible in terms of logistics and costs within the timeframe and budget of the project. The original intent of the project was always a minimum of three sites to achieve the emission reduction indicated. During the PPG phase, other sites were to be explored, but none were identified that would not require significant financial investment to build infrastructure to make carbon neutral facilities feasible.
Co-financing was estimated at \$11,963,000.	Co-financing secured is \$11,972,306.	There has been changes in respect to partner co-financing commitments; in the partners themselves and the amounts committed. This has led to a small positive change in co-financing secured over what was originally expected.
Budget for Component 2 was estimated at \$4,075,915 and Component 3 at \$669,808.	Budget for Component 2 has been costed at \$4,410,123 and Component 3 at \$335,600.	Quotes obtained for project interventions provided more refined costs than were obtained in development of the PIF. In order to not exceed the overall GEF allocation to the project budget, a reallocation of resources from Component 3 were made to Component 2 and determined not to compromise the project ambition. All objectives for both components can be achieved with these adjustments due to support provided by partners with grant and in-kind co-financing.
Budget for PMC was \$231,781 and for M&E was \$65,000.	Budget for PMC has been reduced to \$196,781 and budget for M&E has been increased to \$100,500.	The estimates for M&E have increased since the PIF was completed. Therefore the PMC costs were reduced and considered still feasible in an effort to stay within the project budget. Project management support will be provided by the BEST Commission and executing partners.

#### ***A.1. Project Description.***

##### **•1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed**

#### Overview & Environmental Context

The Bahamas can be found between the southeastern shores of the United States and the northern shores of Cuba. The Bahamian archipelago extends 2,000 km, from Grand Bahama in the north to Inagua in the south, covering 100,000 square miles (259,000 square kilometers). Included in this area are more than 700 islands and 2,500 cays. The archipelago consists of several submerged plateaux, including the Great Bahama Bank and Little Bahama Bank. These are separated by deep oceanic troughs, including the Tongue of the Ocean and Providence Channel. The islands of The Bahamas are the exposed portions of the banks and are formed from limestone created from the skeletal remains of the vast amount of marine plant and animal life inhabiting the shallow water over millions of years.

The distinct environment of The Bahamas gives rise to numerous irreplaceable habitats and species, including vast expanses of Caribbean pine forest, tidal flats with thriving bonefish populations, extensive barrier reefs, the highest concentration of blue holes in the Western Hemisphere, and critical fish nursery habitat believed to contribute significantly to fisheries stocks throughout the Caribbean region. The insularity and extensive carbonate shelf with productive coral reefs and other habitats, plus a large area of coastal wetlands, especially mangrove forests, contribute to the abundance and diversity of fish. Rare, critically endangered, and endemic species can also be found in The Bahamas including the Bahama parrot, several species of Rock iguana, Kirtland's warbler, West Indian flamingo, Hutia, Smalltooth sawfish, Queen conch, and Loggerhead, Hawksbill, and Green turtles.

The Bahamas is a part of the Caribbean Islands biodiversity hotspot. Insularity and an extensive shelf with productive coral reefs and other habitats, plus a large area of coastal wetlands, especially mangrove forests, contribute to the abundance and diversity of fish in The Bahamas. In this regard, The Bahamas has greater biodiversity abundance and diversity than the entire insular Caribbean. On a global scale, the coral reefs of The Bahamas comprise about 5% of the world's total coral reef systems.

Correll and Correll (1982) report that nearly nine percent (121 taxa) of plant species found in The Bahamas are endemic. Over 1,350 species of flowering plants and ferns have been described, representing approximately 660 genera and 144 families.

The shallow bank waters, mangrove wetlands, and tidal creeks provide critical spawning and nursery habitat for numerous ecologically and economically important marine species including Nassau grouper (*Epinephelus striatus*), snapper (Family Lutjanidae), tarpon (*Megalops atlanticus*), bonefish (*Albula vulpes*), turtles (Hawksbill (*Eretmochelys imbricata*), Green (*Chelonia mydas*), and Loggerhead (*Caretta caretta*), several species of shark, including Great hammerhead (*Sphyrna mokarran*), Bull (*Carcharhinus leucas*) and Nurse (*Ginglymostoma cirratum*), Caribbean spiny lobster (*Panulirus argus*) and a variety of other marine invertebrates.

#### Socio-Economic Context

Approximately 30 of the over 700 islands are inhabited. The population of The Bahamas was estimated to be approximately 295,000 in 2000, growing at a rate of just over 1%. By 2010, The Department of Statistics recorded that the population growth increased to approximately 351,471 persons in The Bahamas. The population change figure increased by approximately 50,000 since the 2000 census.

Between 2015 and 2017, it is estimated that The Bahamas sustained US\$678 million in damages from hurricanes. During the 2017, Hurricane Irma impacted the islands of Ragged Island, Andros, Bimini and Grand Bahama, resulting in estimated damage of US\$135 million. In 2016, Hurricane Matthew impacted several islands, including New Providence, with damage estimates of US\$438 million. In 2015, Hurricane Joaquin resulted in a estimated US\$100 million in damages, particularly for the island of Long Island. The 2018 hurricane seasons was quiet for The Bahamas with no islands negatively impacted by hurricanes or tropical storms.

Because of The Bahamas' geographic configuration, the protection of the ocean is of considerable importance as more than 90% of the archipelago is ocean – either coastal or marine environment. Most of the country's biodiversity is found in coastal waters, inclusive of migratory fish and marine mammals. Key economic sectors – tourism and fisheries – are reliant on the health of coastal ecosystems, inclusive of beaches, mangroves, seagrass beds and sand flats.

Currently the economy is still recovering from the effects of the 2008 recession. Due its heavy reliance on tourism, the country is vulnerable to changes in the global economy. The 2017 assessment by the Central Bank of The Bahamas showed very mild growth of the economy. The country's GDP was US\$12.16 billion in 2017 with tourism accounting for more than 50 per cent, financial services about 20 per cent and the balance spread among retail and wholesale trade, fishing, light manufacturing and agriculture. The Bahamian tourism infrastructure supports approximately 1.5 million stopover visitors and 3.5 million cruise visitors annually. Just under 50% of the labour force is directly employed in tourism.

Coastal populations and indeed the entire country, is highly vulnerable to sea level rise, storm surges, flooding, pollution and coastal erosion. The entire Bahamas due to its size and topography is vulnerable to the impacts of climate change. Increased development along coastlines tends to increase coastal erosion and therefore vulnerability of populations. Yet coastal development is one of the primary income generators of the country, and therefore this dichotomy had engendered conflicting approaches to management of coastal resources. Most of the critical infrastructure in the country (e.g. ports, roads, power stations) is found in vulnerable coastal areas.

#### Policy / Legal Context

The Bahamas is signatory to several multilateral environmental agreements, including the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC). National policies and plans relevant to the project include:

- 1999 National Biodiversity Strategies and Action Plan (NBSAP)
- 2003 and 2013 National Invasive Species Strategy (NISS)
- 2005 National Wetlands Policy
- 2005 Bahamas National Environmental Policy
- 2005 National Environmental Management and Action Plan
- Bahamas 2020 Declaration
- 2011 4th National Report to the CBD
- 2013 National Energy Policy
- 2015 Second National Communication on Climate Change
- 2015 Intended Nationally Determined Contribution (INDC)
- 2016 National Fisheries Strategic Plan

#### Institutional Context

The lead agencies for biodiversity are the Ministry of Environment and Housing through the Bahamas Environment, Science and Technology (BEST) Commission, the Department of Marine Resources, and the Bahamas National Trust (BNT). The lead agencies for climate change include the Ministry of Environment and Housing, the BEST Commission, the Department of Meteorology, and the National Emergency Management Agency (NEMA).

#### Project Sites

The targeted project sites were identified through key stakeholder consultations as well as review of national reports, including 2012 Master Plan for the Bahamas National Protected Area System, 2009 Rapid Assessment and Prioritization for Protected Area Management, Ecological Gap Analyses completed in 2014 and 2017 and 20 x 20 Marine Protection Plan.

These sites are:

- a. Andros West Side National Park (AWSNP)
- b. Exuma Cays Land and Sea Park (ECLSP)
- c. Lucayan National Park (LNP)
- d. Moriah Harbour Cay National Park (MHCNP)
- e. Bonefish Pond National Park (BPNP)

These five sites are national parks which are managed by the Bahamas National Trust (BNT).

*Moriah Harbour Cay National Park:* MHCNP (9,240 ha) was declared in 2002 and the expansion approved in 2015. This park is located southeast of Georgetown, Exuma and north of The Ferry settlement on Little Exuma. The extent of the park encompasses nearshore marine habitats, several cays and rocks, including Moriah Harbour Cay, 50 acres on the east end of Stocking Island (within park boundaries) and the shallow banks and reef north of Moriah Harbour, and out to the depths of Exuma Sound. The largest cays within the park are Crab Cay, Man-O-War Cay, Elizabeth Island, Fowl Cay, and Pigeon Cay. MHCNP is as a significant nursery area for commercially important marine resources, especially for juvenile Spiny lobster. Moriah Harbour Cay National Park (MHCNP) provides critical ‘reef to ridge’ ecosystem connections for a variety of marine and terrestrial species. The areas around MHC are home to diverse populations of bird, fish and other marine species, and are ecologically important serving as nursery and nesting areas. As a nesting area, it is important to a variety of seabirds and shorebird, including plovers, oystercatchers, gull-billed and least terns, nighthawks, and resident pair of ospreys. Seagrass beds, mangroves, creeks and lagoons are vital nursery habitat for juvenile crabs, queen conch, groupers, snappers, and spiny lobster. Terrestrial habitats are comprised of intact buttonwood, palmetto, sea oats, and other plant species found in healthy coastal ecosystems in The Bahamas. Beach strand and Dry Broadleaf Evergreen Formations (DBEF) or coppice are the primary plant communities found throughout MHCNP.

These five sites were selected for the following reasons:

- Their designation as areas of high biodiversity value, e.g. Key Biodiversity Areas (KBA) and/or Important Bird Areas (IBA).
- The ecosystem services they provide.
- Their high visibility and potential for project activities to change human behaviours.

- Ecological connectivity in the case of ECLSP and MHCNP.

Based on the biological significance of BPNP and MHCNP, the Bahamas National Trust is completing the application process for KBA designation in collaboration with Birdlife International. These sites meet many of KBA criteria including threatened biodiversity and ecological integrity. It is expected that the review process will be completed and KBA designation will be granted to both sites by the end of 2019. Globally significant species found in each park including the endangered Bahama Swallow (*Tachycineta cyaneoviridis*) in BPNP and critically endangered Elkhorn coral (*Acropora palmata*), endangered Boulder Star coral (*Orbicella annularis*) and endangered Nassau Grouper (*Epinephelus striatus*) in MHCNP.

#### Threats / Root Causes

Threats to biodiversity in The Bahamas can be broadly classified as:

- Natural – biological invasions, disease and natural sedimentation;
- Human – overfishing, development and pollution
- Climate – storms, sea level rise, coral bleaching and global climate change

In The Bahamas, invasive species that pose threats to native biodiversity were identified in the 2003 and 2013 National Invasive Species Strategy (NISS). The species selected for the project have been known to be particularly disastrous for indigenous plant communities and dependent fauna. The Australian Pine (*Casuarina equisetifolia*) creates monocultures, causes erosion of beach dune systems, produces allelopathic compounds, and increases hurricane damage. The Brazilian Pepper (*Schinus terebinthifolius*) outcompetes native vegetation to create monocultures, can cause contact dermatitis and inflammation in humans, and fruits can cause paralyzing effects on birds and grazing animals. The Hawaiian inkberry (*Scaevola taccada*) displaces native coastal vegetation and causes dune destabilization. The Paperbark Tree (*Melaleuca quinquenervia*) alters the water table, destroys wetland habitat, and displaces native plants and animals. These are the reasons that these species have been targeted in the Bahamas National Invasive Species Strategy (NISS) and control measures are considered of highest importance as outlined in the NBSAP for The Bahamas. This project will address control of the invasive plants within the boundaries of Lucayan National Park and Bonefish Pond National Park.

Marine biodiversity in The Bahamas is likely threatened by tourism activities at the same scale as is estimated for other tourism regions. For example, cruise ships are estimated to contribute 77% of all marine pollution worldwide. On a single voyage, a large cruise ship produces an average of 794,850 L of sewage, 3.785 million L of greywater, 568 L of hazardous waste, and 8 tonnes of garbage (Wind Rose Network, 2019). Localized stresses on coral reefs include sewage runoff from hotels lacking proper wastewater treatment, tourism impacts such as diver damage, and destruction of coastal habitats for hotel and marina development.

Present-day agricultural practices which are of environmental concern include the mixing of chemicals close to wells, open trench wells for irrigation, open application of fertilizers and other agro-chemicals to the ground and the indiscriminate application of fertilizers and agro-chemicals in general.

Climate change and its impacts threaten all of the targeted project sites. As a Small Island Developing State, The Bahamas has a low relief relative to mean sea level. It is threatened by the adverse impacts of climate change, including sea level rise, increasing sea surface temperatures, inundation, storm surges, the increase in the intensity and frequency of tropical processes, climate variability, and changing weather patterns. Climate-related changes in habitat include coral bleaching as a result of increasing sea surface temperatures, rising sea levels, and coastal erosion. Impacts on the marine environment specifically, will be felt across ecosystems like coral reefs, seagrass beds and mangroves due to changes in sea level. In 2004, Hurricanes Frances and Jeanne, in addition to destroying properties valued over US\$200 million, severely compromised the freshwater reserves in Andros as well as in Grand Bahama. The aquifers were inundated with salt water from the storm surges associated with these hurricanes.

#### Long-term Solution and Barriers

Barriers in The Bahamas which this project seeks to address include:

1. **Lack of framework for promoting sustainable development at site level in The Bahamian islands** (to be addressed by Project Component 1) - The project will seek to overcome this barrier through the development of a spatially-based decision support system for INRM that can be utilized by land and natural resource management agencies. Development of ecosystem-wide zoning plans at select sites will also serve as models for expanding management to wider landscapes and seascapes
2. **Lack of successful models of individual MPAs that overcome financial and capacity constraints through targeted investment & insufficient knowledge of what Renewable Energy (RE) can offer for MPA management effectiveness** (to be addressed by Component 2) - One mechanism to achieve local community involvement through the project is the establishment of PA advisory boards. These boards would be regularly involved in the PA management and integrated into the organizational structure of BNT as a model for sustained community involvement. The retrofitting with renewable energies of selected facilities in protected areas is expected to add to the financial sustainability of the parks and serve as a model for future interventions towards a more effective and innovative management of protected areas. The project will also deliver a package of revenues and cost savings that will increase the financial sustainability of MPAs and provide a model for the national PA system. The project will seek to establish and implement species conservation and monitoring plans for five of the targeted MPAs. The intent is that lessons learned through the project will enable such plans to be scaled up across the national PA system.
3. **Lack of capacity and inadequate experience in INRM at the local site level** (to be addressed by Components 1 and 3) – Focusing on specific stakeholders, the project will showcase the rehabilitation of degraded land through invasive species removal and control and ecosystem restoration, highlight how changes to production sector practices can have beneficial outcomes for both the sector and conservation, and involve communities and schools in INRM to promote education and custodianship of wider coastal landscapes through pilot adoption schemes.

#### **2) The baseline scenario or any associated baseline projects**

##### Baseline Scenario and Government Baseline Spending

PA management bodies currently derive funds from a variety of sources in the amount of US\$8.3 million; this does not include in-kind funding from partners. It is estimated that this funding may increase to \$15.4 million by 2027. Expected costs per acre under status quo are about \$8.6 million (\$0.02- \$2.13 per acre) and expected to increase to \$35.4 million in



2027. Effective management needs were estimated to be \$18.8 million currently (\$4.79 – \$6.59 per acre), increasing to more than \$155 million in 2027. This is presented in the context of the \$900 million in benefits from the PA system estimated by NatCap based on tourism, coastal protection and spiny lobster nurseries (rising to \$5 billion if carbon sequestration is included). Given current funding, the financial gap is \$10.5 million currently and projected to be \$140 million in 2027 and is presented for each agency. The gap increases in years when new MPAs are expected to be implemented and is greatest for BNT, due to numerous MPAs expected to be implemented over the next decade. The report also outlines cost sharing or saving measures developed with stakeholder consultations.

The two parks for which business plans will be developed have very limited funding available currently. Moriah Harbor Cay has not had any funds available to date for active management. It has recently benefitted from two grants. In 2018, the Oceans 5 project provided a one-off payment of \$20,000 for the development of a management plan, including stakeholder consultations. In 2019, a \$30,000 grant has been awarded by the National Fish and Wildlife Foundation (NFWF) to improve park demarcation, increase awareness of park benefits, and increase community engagement. Lucayan National Park had a budget of \$151,000 in 2018 of which half comes from on-site revenues; these are mainly entrance fees (79%) but also donations, memberships, events and merchandise sales. Revenues were used to fund staff (38%) and very limited activities to support tourist visitation. On-site revenue collection at both parks would assist in generating funds for on-going management.

### **3) The proposed alternative scenario, GEF focal area[1]<sup>1</sup> strategies, with a brief description of expected outcomes and components of the project**

#### Project Overview:

The primary goals of the project are:

- To mainstream Integrated Natural Resource Management systems in the management of marine protected areas and adjacent land/seascapes;
- To foster improved and more effective protected areas management approaches in five priority MPAs through demonstration and application of management and technology innovation; and
- To better integrate sustainable development considerations in MPA management through strengthened community engagement and enhanced custodianship across broader land and seascape

#### Project Objective:

The project objective is for the management of Marine Protected Areas (MPAs) in The Bahamas to be strengthened and integrated into broader landscape planning in order to reduce pressures on ecosystem services and biodiversity from competing resource uses.

## **Component 1: Integrated Natural Resource Management systems for marine protected areas and adjacent land/seascapes**

- This component will consist of two outcomes - (1) better effective planning for conservation and sustainable development in areas encompassing MPAs, and (2) development of an integrated natural resource management (INRM) framework which supports the reduction of pressures on biodiversity from competing land uses in the wider landscape.

### **Outcome 1.1: Better effective planning for conservation and sustainable development in areas encompassing MPAs**

- **Output 1.1.1: Spatially-based decision support systems for INRM are available for use in cross-sectoral landscape planning & management and in policy and regulatory development**

- The project will address a key barrier related to the fragmented approach to natural resource management on the islands of The Bahamas that is linked to the fact that information management and processes to share information among stakeholders for coherent and informed decision making is not currently done in an efficient manner. The project intends to contribute to this significant challenge through the development of, and installation of a spatially-based decision support system (SDSS) making framework that serves the range of stakeholders that are concerned with natural resource management which takes into account broader sea/land planning. Through use of such a SDSS, resource management decisions, particularly related to maintenance of the value of ecosystems services to economic development will be strengthened based on enhanced capabilities to:

- Establish baseline references against which biodiversity loss and alterations can be monitored over time;
- Capture and make available improved information on protected area boundaries, species occurrences, and habitat/ecosystem types and locations;
- Audit environmental impacts due to development by relevant national authorities; and
- Carry out assessments for infrastructure development, tourism and resource extraction projects.

The SDSS will be built around a multi-user geographic information system (GIS) at its core, drawing on the powerful capabilities of this tool, allowing users to map and analyze spatial relations associated with multiple features and variables that occupy geographical spaces of interest. The system will be designed to appropriately control access and specify permissions for users within institutions and the general public and ensure privacy and controlled data sharing between entities. Specifically, the SDSS will allow users to:

1. Carry out spatial relational analyses based on multiple-criteria evaluations to generate decision scenarios taking into account biodiversity assets;
2. Upload and archive spatial data acquired along with metadata within a centralized and inter-connected data hubs to facilitate enhanced access to users;
3. Rapidly search, visualize, and map biodiversity data using satellite imagery and data captured via other means;
4. Easily import and export data using popular formats;
5. Create maps and other spatial outputs to disseminate to stakeholders;
6. Access international biodiversity data sources specific to The Bahamas through a common data portal.

The SDSS will have three basic components:

1. Data acquisition and integration tools
2. Data management system that allows for powerful, flexible and efficient data archive, curation and analysis
3. Data visualization and decision-support tools

In terms of contributions to improved decision making and management of marine protected areas in the Bahamas the SDSS will:

1. allow users to access spatial data on *inter-alia* species populations, protected area habitat and ecosystem status, spatial locations and extents, biogeographical regions, elevations and bathymetries, and coastal and marine sensitivities, abstracted from historic studies, field exercises/studies, and potentially ground-truthed where practical;
2. contribute toward a single, national biodiversity database and data layer storage solution that can be that can be accessed by Government and non-Government institutions;
3. provide access to scientifically sound information about conservation and sustainable development, and serve data for reporting requirements of the various multi-lateral environmental agreements to which The Bahamas is signatory;
4. increase local capacity to use and apply the results of geospatial tools in planning;
5. enhance institutional capacity and increased data integration among multiple scientific research institutions; and
6. increase overall in-country capacity to collect, manage, validate, summarize, and disseminate biodiversity data.

An evaluation exercise to determine the host agency for the SDSS based on nine key criteria was carried out on three agencies with mandates most closely related to natural resource management; the BEST Commission, the Bahamas National GIS Centre, and the BNT. The evaluation revealed that the BEST Commission was most suited to be the host institution based on the quantitative and qualitative assessment of the Commission's overall mandate, its capacity, willingness to support the project activity, and its ability to sustain the SDSS in perpetuity. The assessment was also underpinned by consultations with stakeholders, interviews with the Commission staff, a self-evaluation, and final evaluation conducted during the project development phase. Furthermore, BEST is the progenitor of all GEF activities and GEF funded reports and projects, which requires BEST to meet substantial data and reporting requirements. Beyond national budget allocations, grants pursued by BEST can allow for flexibility in allocation of funds toward enhancements of the SDSS beyond the life of the project.

It is envisioned that the SDSS will be utilized by a broad spectrum of local, national, and international stakeholders in the public and private sector, civil society, and the general public. Interest in the biodiversity data and analysis capability of the SDSS will attract users in academia, technical, administrative, policy and decision-making roles from institutions that have mandates related to biodiversity, conservation, protected area management, scientific research, environment, land use, capital works, development and decision-makers. Training opportunities to effectively use the SDSS and build capacities among users will be made available within the scope of the project.

More details on contributor and user institutions and data types to be handled by the SDSS are contained in Annex B.

**Outcome 1.2: Development of an integrated natural resource management (INRM) framework which supports the reduction of pressures on biodiversity from competing land uses in the wider landscape**

**Output 1.2.1: Ecosystem-wide Zoning Plans developed and approved for areas encompassing 5 target MPAs**

Comprehensive zoning plans will be developed for all five sites under the project. These zoning plans will provide clearly defined and spatially explicit definitions for MPAs. Zoning can assist decision-makers with protected and management of natural resources. It allows for participatory planning with a wide spectrum of stakeholders and requires an integrated and inter-disciplinary approach to planning. It will address the issue of conflicts among different users and their uses of the area, conflicts between users and the marine environment, and the negative impacts both have on MPAs and their ability to provide ecosystem services. Having a zoning plan in place will also allow decision-makers to be proactive by planning necessary actions and shaping actions that can lead to more desirable futures. Ultimately, the zoning plans will be adopted and implemented by the Bahamas National Trust.

The zoning plans will be developed in parallel with the development of the SDSS and will form part of the suite of data products that is integrated within the SDSS. The zoning plans will incorporate knowledge of the spatial distribution of marine resources as well as indications of how the areas under the plan jurisdiction are being used, any special patterns of use that exist, and the conservation status of the areas. Knowledge of the environmental features and the existing conditions of the resources within and adjacent to MPAs will entail the use of relevant assessment tools depending on the nature, size and distribution of the marine resources.

Extensive stakeholder consultations and engagement in the planning process will be facilitated by the project and will include, but not limited to, the Bahamas National Trust and Bahamas National Geographic Information Systems (BNGIS) Centre.

**Component 2: Effective Protected Area Management**

This component has four outcomes; (i) improved PA management effectiveness, (ii) increased financial sustainability in two of the PAs, (iii) stable population numbers of priority species, and (iv) reduced carbon emissions from infrastructure in protected areas.

**Outcome 2.1: Improved PA management effectiveness at 5 MPA sites**

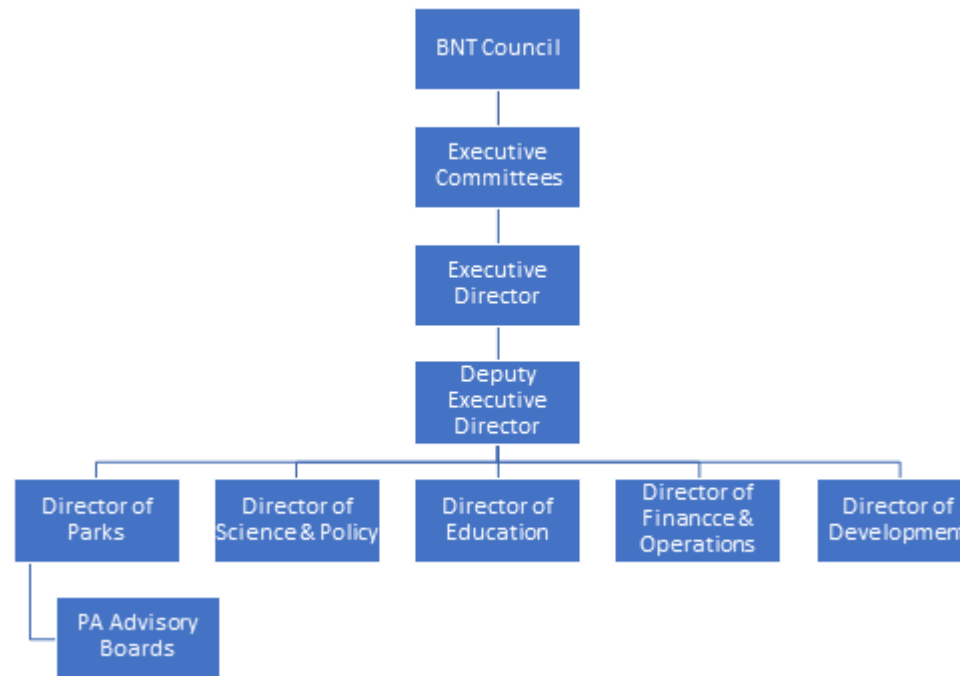
**Output 2.1.1: PA Management Advisory Boards for recently established MPAs (Moriah Harbour Cay National Park and Lucayan National Park) established and provided with operational capacity**

The focus of this output is to strengthen community involvement and build a sense of ownership for improving park management capacity. Participatory PA Management Advisory Boards will be established for each of the two MPAs - Lucayan National Park and Moriah Harbour Cay National Parks, which are managed by the Bahamas National Trust (BNT). The project will contribute to establishment of the Advisory Boards at each site, including development of the management structure that will include elements such as legal context, constitution and rules of procedures, stakeholder representation and scope of work/terms of reference. Key management activities that PA Advisory Boards are envisioned to be involved in include resolution of user conflicts and visitor management.

Within the organizational structure of BNT (see Figure 1), Advisory Boards would fall under the Parks Division which is responsible for the implementation of management plans. Recommended Board members for LNP are one representative from each of the stakeholder groupings; tour companies, Grand Bahama Taxi Union, hotels, the Ministry of Tourism, East Grand Bahama Local Government, the Grand Bahama Development Company and the Grand Bahama Port Authority. Recommended Board members for MHCNP include one representative from each of the stakeholder groupings; the local Government, Exuma Foundation, Elizabeth Harbour Conservation Partnership, the Ministry of Tourism, tour guides, Yachters Association, and Department of Marine Resources. It is anticipated that the Chair of each Board be selected by Board members and BNT would function as the Secretary to the Board and provide technical support. The project will facilitate gender parity in representation on the boards. The project through the partners, will foster gender balance in establishment of these governance bodies whereby it is anticipated that gender considerations will filter through management regimes of protected areas in The Bahamas. The aim will be to encourage increased empowerment among women to step more prominently into the role of protected area management.

The project will contribute to the development of Terms of Reference for the Boards at the start of the project, along with further definition of the operating modalities. Figure 1 illustrates a proposed structure of the PA Advisory Board.

**Figure 1: Proposed PA Advisory Board within the BNT organizational structure**



The project will support capacity building for board members to enable them to guide the management planning process and to define and achieve long-term park management goals. Training for Board members will be focused on:

- Understanding the MPAs they are responsible for, including boundaries, representative species and habitats, conservation goals, as well as BNT organizational structure and legal mandate;
- Resolution of conflicts between MPA users;
- Stakeholder engagement;
- Communications (e.g. messaging and storytelling); and
- Fundraising.

The project also will develop and implement a community awareness and education campaign for LNP and MHCNP. Each campaign will include general information about the specific park (e.g. boundaries, bylaws, uses, role of the Board, how persons can be involved). There is value in highlighting the existence of the Board and how persons can communicate with Board members. Priorities for each park over the next 5 years could be highlighted as well.

### **Output 2.1.2: Management Plans developed / updated and under implementation at 5 MPA sites**

The project will contribute to the updating and strengthening of implementation modalities of existing management plans prepared for the five MPA sites. Revision and updating of these plans will take into account the evolving threats from within the MPAs as well as those coming from adjacent areas, in addition to defining a strategy for infrastructure management operations within the protected areas to become carbon-neutral.

The project will contribute to the completion of the management plans for Bonefish Pond National Park (BPNP) and Lucayan National Park (LNP), neither of which currently have a management plan. The Exuma Cays Land and Sea Park (ECLSP) management plan will be updated under the project as it is more than 10 years old. Implementation of priority activities will occur in all five targeted project sites.

Priority activities for implementation for each PA as identified by the Bahamas National Trust are as follows:

- AWSNP – Enhance enforcement of park bye-laws, establishment of management zones<sup>[2]</sup> as identified in the 2013 management plan, and outreach to park users;
- BPNP – Establishment of management zones as identified in the management plan to be developed and outreach to park users;
- ECLSP – Enhance enforcement of park bye-laws;
- LNP – Establish visitation carrying capacity assessment in consideration that the proposed Carnival Cruise Port development will mean greater influxes of tourists to the park; and
- MHCNP – Establishment of a user fee collection system.

### **Output 2.1.3: Infrastructure established and staff deployed and capacitated at 5 MPA sites**

The project will support the establishment of critical MPA infrastructure, including offices, staff quarters, visitor facilities, and docking facilities, with a preference for installing “green infrastructure”, inclusive of renewable energy systems (per Output 2.4.1) and energy efficient appliances and lighting, with low environmental impacts and to attain carbon neutrality for BPNP, ECLSP, and LNP. Infrastructure, staffing, equipment and training needs specifically identified for funding by the project for each PA are listed in Table 10.

The parks suffer from a lack of financing and infrastructure. For example, Lucayan National Park has only one toilet and limited tourist educational materials. Moriah Harbour Cay National Park has no infrastructure currently, although there is funding for a gazebo on Stocking Island to provide shade to support educational visits from schools. If tourist facilities are developed, there is potential for significant revenue to be raised from entrance fees, merchandise sales and concessions. These revenues could help to make the MPAs self-sufficient

and generate funds needed for other management activities, such as outreach and education, monitoring, enforcement and threat reduction. Current budgets are insufficient to undertake these critical management activities.

**Table 10: MPA Needs**

Site	Infrastructure	Staffing	Equipment	Training
AWSNP	Small visitor centre/kiosk (25' x 25') Mooring buoys (15) Demarcation buoys (20) Landmarkers Signage – standard park, interpretive & regulatory	1 warden	28-ft Pontoon 4x4 Pickup truck	<p>Standard warden training which will be done in-house by BNT. There will also be some on-site training. Training will include: Orientation on BNT National Parks (boundaries and conservation goals) BNT Act and bylaws for various parks Park policies and procedures</p> <p>Joint enforcement training activities with DMR, RBDF and RBPF will be explored; training would include: Boarding and search Arrest and detention Developing case files Chain of custody and securing evidence</p>
BPNP	Restrooms (standalone) Visitor centre/small office (20' x 20') Signage Demarcation buoys (4)	1 Warden	4x4 Pickup truck 18-ft Pontoon	
ECLSP	Small outposts – 1 in the north (20' x 20' structure with 1 room and 1 bathroom) and 1 in the south (40' x 60' visitor centre with 37-gallon water catchment system)	1 warden	Drones for surveillance (2)	
LNP	Paved parking lot with solar lighting Small fee collection kiosk Restroom with small concession area	1 warden		
MHCNP	Foot-trail system established on Stocking Island – ¼ mile loop trail to gazebo and access to interior pond Visitor centre/small office Mooring buoys (10 to 15)	1 warden	28-ft boat with trailer 4x4 Pickup truck Drones for surveillance (2) Digital tablet for SMART data collection and surveillance (1)	

**Outcome 2.2: Increased financial sustainability of the Moriah Harbour Cay and Lucayan National Parks**

**Output 2.2.1: Business Plans developed and under implementation for Moriah Harbour Cay and Lucayan National Parks**



To support the sustainable operations of the Moriah Harbour Cay National Park (MHCNP) and Lucayan National Park (LNP), the project will undertake a complete cost analysis for the operations of these newly designated MPAs, conduct a feasibility assessment for the potential use of new user fees at the sites, and develop MPA business plans for operating the two MPAs.

The 2008 Sustainable Finance Plan and a subsequent update, the 2017 Sustainable Financing for the Bahamas Protected Area System make the case for national-level harmonization of user fees for the PA system in the country and different but complementary efforts at various sites across the archipelago under the umbrella of a national framework. The key recommendations from the 2008 Plan and 2017 update to be realized in the project are development of a user fee system that can be extended to all protected areas, and development of a varying rate schedule covering entrance and activity fees, based on the location of each park, visitor demand and staffing requirements. This project intends to actualize this approach at the national level in what may be considered a modular approach in roll-out, targeting these PAs that have significant visitor development potential and have significant conservation and protection value. The intention of the project is to foster harmonization at the national level but through concrete demonstration of operational application at the PA site level.

These national parks were selected based on consultations with project partners owing to that fact that the sites are easily accessible by visitors and have high visitation rates. LNP, where there are currently 25,000 visitors a year, is also particularly likely to have greatly increased visitation in the future, with at least one major cruise ship terminal being developed near the park. This port is anticipated to be able to accommodate two mega cruise ships at the same time, and expected to bring in an additional 1 million visitors a year to Grand Bahama as well as increasing Bahamian visitation through support of employment. MHCNP could also generate significant visitor numbers given development of tourist facilities.

Business plans developed for these two sites will focus on the key elements that will include descriptions of the economic, ecological and physical resources of the MPAs, market, economic and functional area analyses of required investments and recurrent expenditures under minimum sustainable management and optimal level of required funds. The plans will also consider cost reduction strategies such as volume purchases and preventative maintenance of equipment. Financing plans will be prepared to look at potential sustainable financing mechanisms (SFMs) and prioritise, based on agreed criteria such as social acceptability, technical feasibility and expected returns. This will also include details for implementation steps and timelines of these SFMs. Finally, marketing plans will be prepared which include information such as feasibility of potential services offered and pricing, promotion strategies, alliances and partnerships. More detailed information about research and requirements for activities under this component are provided in Annex C.

The project intervention will be done against the backdrop that application of uniform 'national-level' fees to support MPA management is unlikely to be suitable in the Bahamas, as political acceptability and accountability has been problematic. Institution of tariffs and fees at national level usually require legislation changes and can be expensive to implement and enforce, unless they are tagged onto existing fees to minimize the costs of collection, registration, and general administration. There is also a history of national fees such as the environmental levy on imports, going into consolidated government funds with challenges for recovery for investment in resource conservation. Institution of local fee (on-site) systems are preferable as they are more likely to be directly to cover MPA costs; they are more easily administered, understood, and acceptable to visitors compared to general taxes and fees (as they are location and use specific), can be used to control visitor numbers as necessary and do not need central government approval (Blackwell et al., 2013).

Investment in infrastructure and concurrent development of business plans at these two sites provides an opportunity to help them become financially self-sufficient. Currently both parks are limited by a lack of adequate infrastructure, which is linked to the fact that financial management and cost-recovery measures are not in place to allow for needed investments and their maintenance. LNP has only one toilet and limited tourist educational materials. Moriah Harbour Cay has no infrastructure currently, although there is funding for a gazebo on Stocking Island to provide shade to support educational visits from schools.

Should proper service amenities be installed based on proper market analysis, an adequate fee structure along with supportive financial controls, there is potential to significantly grow revenue from entrance fees, merchandise sales and concessions that would help to generate funds needed for other management activities such as outreach and education, monitoring, enforcement and threat reduction. The correct price and type of user fees implemented at both sites will be informed by contingent valuation studies administered to visitors as part of this project.

For the LNP, a fee structure could be based on revenue components that may include general admission, fees to view exhibits and shows, rental fees for use of equipment such as boats and facilities (such as campsites), licenses and permits for activities, such as fishing or kayaking and special service fees such as tank refills, transport and guide services.

For MHCNP, mooring and anchorage fees can be established once moorings have been installed and vehicles purchased. The project will contribute to the development of an on-line payment system which uses AIS (Affiliated Interactive Services), although this cannot be solely relied on due to likely mixed levels of voluntary compliance. In addition, diving fees will be established through dive operators, who collect fees and then pass them onto the park, to reduce collection costs. Concessions could be explored with kayaking tour companies and fees from fishing guides, but there may not be enough visitors to cover transaction costs. The Elizabeth Harbour Grant Partnership will be considered as a source of revenue. Finally, since several of the large resorts, such as Sandals, have expressed an interest in supporting the park, a voluntary surcharge on hotel bills should be explored. This would collect a small fee, which is added onto the resort bill, of perhaps \$2. The use of these funds would be explained and tourists could opt out of paying these fees, which would increase acceptability to the resorts. The resorts would then forward these funds to the park.

For LNP, there exists substantial information in terms of cost estimates for necessary investments in infrastructure as well as estimates of recurrent management costs. A draft business plan was developed back in 2017 which also contains useful information as to substitute sites, cost-saving measures and potential partners in terms of tourist operators.

### **Outcome 2.3: Stable population numbers of the priority species in targeted project sites**

**Output 2.3.1:** Species Conservation and Monitoring Plans developed and priority actions (e.g. monitoring) under implementation for priority species at 5 MPA sites - Andros West Side, Lucayan, and Moriah Harbour Cay National Parks, South Berry Islands and Exuma Jewfish Cay Marine Reserves

The project will develop a conservation and monitoring plan and associated conservation management activities for priority species at each of the five target MPAs. The species of conservation interest are (i) Small-toothed sawfish, (ii) Velvet Sponge, (iii) Nassau Grouper, (iv) Staghorn coral, (v) Bonefish, (vi) Elkhorn coral, (vii) Spiny lobster and (viii) Queen conch. Table 11 lists the key monitoring and proposed conservation management activities for the priority species for the five MPAs.

These activities will be carried out in cooperation with Perry Marine Institute, Shedd Aquarium and other partners under overall supervision of the Bahamas National Trust. The data collected will be fed into the Spatial Decision Support System developed under Component 1.

**Table 11: Priority Species and Proposed Monitoring and Conservation Management Activities**

<b>Site &amp; Species</b>	<b>Monitoring</b>	<b>Conservation</b>
<b>AWSNP</b> (a) Small-toothed sawfish (b) Velvet Sponge	(a) Monitoring of sawfish numbers and movements of the species will be done by tagging large juvenile and adult small-tooth sawfish using satellite transmitters (Wildlife Computers), and acoustic transmitters and receivers. The Relative Abundance Index (RAI) will also be determined using fishery-independent surveys which is important for detecting minute changes in population size. Genetics will also be used to monitor genetic diversity and connectivity with the US population and historically caught sawfish (old rostrums in museums and hung in marinas).  (b) Velvet sponge is the species of most concern for conservation. Monitoring activities will be done for all commercially important species <sup>[3]</sup> for densities, population demographics and diversity will be monitored using modified AGRRA methodologies and monitoring growth of sponges in different areas around William's Island, Middle Bight/South Bight and southern parts of the AWSNP	(a) Education and outreach activities on the sawfish will be conducted to raise awareness of the species and lobby the government for protections specific to the species.  (b) If Velvet Sponge is in fact found as has been reported by some spongers, samples will be taken to confirm identity, some will be taken to nursery sites to grow on, and later transported throughout the park.
<b>ECLSP</b> Nassau Grouper	Densities will be determined using AGRRA surveying; some groupers will be tagged using acoustic accelerometer tags for bioenergetics research; blood/fin clips will also be collected for genetic samples; and size class distribution will be determined using stereo video survey equipment.	There will be education and outreach activities lobbying for improved management which may include changes in the minimum size for legal harvest and potentially an extension to the closed season.
<b>LNP</b> Staghorn coral	(a) Distribution, densities and health of Staghorn coral will be monitored using AGRRA coral and benthic surveys, including the survival or remnant colonies of naturally occurring populations and restoration sites.	Staghorn coral fragments will be collected and grown in nurseries within the park and later transplanted out. Genetics of naturally occurring and out planted colonies will be determined to assess genetic diversity in the area. Populations will be monitored during spawning time to determine if populations are reproducing in LNP

Site & Species	Monitoring	Conservation
<b>MHCNP</b> Elkhorn coral	Distribution, densities and health of Elkhorn coral will be monitored using AGRRA coral and benthic surveys.	Coral fragments will be collected and grown in nurseries within the park and later transplanted out. Genetics of naturally occurring and outplanted colonies will be determined to assess genetic diversity in the area. Populations will be monitored during spawning time to determine if populations are reproducing in MHCNP
<b>BNP</b> Spiny lobster	Collectors will be installed at certain locations throughout the Park (to compare to recruitment assessments conducted in the area as early as 2003). These collectors will monitor the number of juvenile spiny lobsters that are settling in the MPA monthly and indicate productivity of the protected area. Surveys of juvenile lobsters and benthic habitats in natural and restored areas (using modified AGRRA surveys) will also be conducted in areas within the park to assess suitable nursery habitats and examine stock recruit relationships for the area.	The evaluation of nursery habitat and lobster recruitment to restoration areas will help guide restoration efforts in other mangrove systems within MPAs in The Bahamas.

**Outcome 2.4: 2,105,539<sup>[4]</sup> tCO<sub>2</sub>-eq emissions from buildings in protected areas are reduced (indirect and direct impacts)**

**Output 2.4.1:** 3 carbon neutral Marine Protected Area facilities (photovoltaic substitute for diesel generators (minimum 1,052,769.6 tCO<sub>2</sub>-equivalent direct emission reduction over 15 years) for the ECLSP's visitors centre, Lucayan visitors centre, and Bonefish Pond's visitors centre

The project will seek to demonstrate via pilot installations at three sites, the social, environmental and economic feasibility of climate change mitigation through implementing innovative carbon-neutral solutions that will contribute to the effective management of marine protected areas and to reduce risks associated with the use of diesel to power facilities. Diesel is typically held in bulk storage and transferred across the marine environments to other islands for daily use; this repeated transfer processes poses a high oil-spill risk to sensitive protected area environments. The pilots will serve as models to be scaled up to other facilities within the protected areas and across the country.

A set of technological options to reduce reliance on diesel fuel will therefore be considered, that includes solar PV systems, energy efficient lighting (LED-based), improved windows and insulation, green roofing, and use of vegetation to aid cooling. The following describes the proposed system installations for each of the 3 sites.

**ECLSP** - For a peak daily consumption of 220 kWh, it is proposed that 100 per cent of the daily demand for the property is supplied, with any excess feeding back to charge batteries. It is proposed that install 2 Solar PV systems be installed as follows:

- A 3.6kW system to service the Welcome Centre, RBDF Outpost, Visitor Recreation Centre along with solar pathway and energy-efficient appliances and lighting. The diesel generator backup will only be utilized in emergency situations or to replenish batteries due to poor weather conditions.
- A 25kW system to service the main building (Peggy Hall) and new building, including watermaker, maintenance workshop and research area. Similar to previous system, the diesel generator backup will only be utilized in emergency situations or to replenish batteries due to poor weather conditions.

**LNP** - For a peak daily consumption of 14.6 kW, it is proposed that 100 per cent of the daily demand is supplied for the property, with excess output feeding back to the power grid. A 3.6kW Solar PV system is therefore proposed, along with solar pathway and parking lot lighting, and energy-efficient appliances and lighting. The main supply from the Grand Bahama Power Company would serve as backup only to avoid need for diesel backup.

**BPNP** – A 6.6kW system to service the Welcome Centre, and Electric Vehicle Charging Station (EVCS) is proposed, as well as parking lot solar lighting and solar-powered surveillance equipment. The system will include a 10kW inverter (dc to ac), solar panels, and racking system.

Over the course of the project, consumption audits will be carried out quarterly and reported as part of the operational reports from the national park management. The estimated carbon emission reductions will be quantified.

The project will contribute to the installation of signage and promotion of project interventions on social media that will help create awareness among citizens and visitors alike and promote the vision of the protected area system in its drive toward more ‘green’ sustainable options. The project will carefully document the contributions from the RE installations in the reporting of results related to CO<sub>2</sub> emissions aversion; this information will also be available to the national stakeholders engaged in the project. Finally, the investments under the project will be used in future replication and scaling up efforts across the national system in the country.

### **Component 3: MPA management integrated with sustainable development in the broader land/seascape**

This component aims to significantly engage local communities that derive direct economic benefits, in enhanced environmental stewardship of the MPAs and surrounding areas, through contributions to on-ground actions that reduce degradation and deepened appreciation of the environment.

**Outcome 3.1: Enhanced provision and appreciation by neighbouring communities of the services from ecosystems in MPAs and surrounding areas as a result of (i) rehabilitation of degraded land, (ii) changes in production sector practices leading to both development and conservation objectives and (iii) fostering long-term custodianship of MPA ecosystems by communities.**

### **Output 3.1.1: Reduced impacts from adjacent areas on MPAs through Invasive Alien Species (IAS) management and ecosystem restoration**

-  
The project will focus on the restoration of sensitive landscapes, critical areas for maintenance of ecosystem services within the Bonefish Pond National Park and the Lucayan National Park, that have become overrun with invasive alien species. These are areas adjacent to MPAs, particularly within the land-sea interface, with a focus on strengthening ecosystem resiliency. The main invasives targeted for removal and control include the Australian Pine (*Casuarina equisetifolia*), Brazilian Pepper (*Schinus terebinthifolius*), Hawaiian inkberry (*Scaevola taccada*) and the Paperbark Tree (*Melaleuca quinquenervia*). These were the priority invasive plants identified for these two project sites under the threat assessment (see Section 2.4.1).

In the Bonefish Pond National Park, the project will undertake invasive species removal and control as well as restoration activities over at least 10 ha of mangroves. The work will be done in association with the Forestry Unit as well as participants in the adoption scheme (see Output 3.1.3). Anticipated activities will include:

1. Eradicating the Australian Pine and controlling Brazilian Pepper;
2. Restoration, inclusive of removal of heavy metals (copper and iron burnt cables), marine litter, garbage and construction waste;
3. Enrichment planting of Red and Black mangroves along the northwest and southern boundaries of the park and areas where debris removal has occurred. On the northern boundary of the park, there will also be restoration of Silver buttonwood;
4. Signage displaying infographics will be installed to educate park visitors about the invasive removal and ecosystem restoration effort.

Activities at Lucayan National Park will involve restoration of sand dune habitat through reestablishment of native species along the entire park boundary, inclusive of adjacent areas over approximately 90 ha. The project will include control of invasives, notably the Australian Pine and Paperbark Tree. The work will be done by the Trust.

The interventions will be guided by the 2003 Green Sweep Manual for IAS removal that was developed in tandem with the 2003 National Invasive Species Policy and Strategy.

To ensure sustainability of these actions (i.e. IAS management and ecosystem restoration), the project will address the main causes of the problem that include lack of awareness about invasives and their pathways, and lack of regulations to require landowners to remove invasive plants from their property. In this regard, signage displaying infographics will be installed along with community awareness activities (e.g. school talks, outreach at local plant nurseries). The control of IAS is no doubt an intensive and long-term process that requires commitment from many stakeholders, notably those who are in most direct contact and have influence over landscape management, such as BNT. It is for this reason that the project intends to assist in building the capacity of stakeholders with 3 outputs under Component 3 related to community engagement. With this investment under the project, it is expected that commitment among stakeholders will be strengthened. It is also expected that national agencies including BEST, BNT, Forestry Unit and Department of Agriculture will continue to support longer-term efforts to enhance likelihood of success. It should be underscored that the project will foster a co-management approach between support agencies and the community, recognizing that engagement in IAS control will likely not be driven solely by revenue generation factors that may otherwise incentivize the process.

**Output 3.1.2: Reduce impacts of agriculture and pollution in productive landscapes on ecosystem services and biodiversity in MPAs**

The project will support the promotion and adoption of good agricultural practices (GAPs) to help reduce the adverse impacts of land degradation and pollution of the environment with focus on AWSNP and BPNP on the islands of Andros and New Providence. A key focus will be on integrated pest management in reducing chemical loadings to the environment. The aim will be to encourage reduced reliance on agro-chemicals, and their safer use where required, adoption of more environmentally-friendly approaches to soil and water conservation that include establishment/refurbishment of drainage on farms and incorporation of practices to increase organic matter in the soil.

The main activities will be centered around the building of technical capacities of farmers, technicians and extension officers, to jointly design and implement best practices through theoretical and practical training sessions, and on-farm demonstrations. To develop a relevant and effective training and capacity building GAP programme, it will need to be informed by farmer identification, evaluation of their current farming practices and farm types (e.g. livestock), along with fertilization, pest and disease treatment measures, in terms of the type and frequency of chemical applications. The project anticipates the participation of between 60 and 80 farmers cultivating holdings within 100 hectares, with the objective of transferring best practices to cultivations over a wider 1,618 hectares (4,000 acres). Farming plots on New Providence and Andros range in size from 1 acre to 200 acres. Over the course of the project, the quantities and frequency of agro-chemicals applied in-field will be monitored in terms of the Treatment Frequency Index or TFI which is the number of times farmers use spray or other chemical application measures on their fields on average over the course of the year, along with the extent of implementation of improved practices.

Important stakeholders will include livestock and crop farmers on the islands of Andros and New Providence, Extension Officers with the Department of Agriculture (DoA), Department of Marine Resources, Bahamas Agriculture and Marine Science Institute (BAMSI), Department of Environmental Health Services (DEHS), BEST Commission, Bahamas Agricultural Health and Food Safety Authority (BAHFSA) and the Department of Public Health.

This activity will be led by the Inter-American Institute for Cooperation on Agriculture (IICA). As the specialized agency of the Inter-American System for agriculture, IICA supports the efforts of the Member States, including The Bahamas, to achieve agricultural development and rural well-being. The Institute's 76-year history, physical presence in each country, and coordination role for many of the regional articulation mechanisms in the region gives it an unparalleled understanding of the challenges faced by the agricultural sector as well as the solutions that are effective. IICA has been operating in The Bahamas since 1998 and provides strong technical assistance to both the government and private sector.

**Output 3.1.3: Pilot communities and/or schools are supporting management of two MPAs ("adoption schemes")**

Fostering community stewardship is vital to the sustainability of marine protected areas. As an archipelago, The Bahamas' infrastructure and other support needs for managing MPAs cannot be the responsibility of a single entity given resource constraints and the spatially distributed nature of natural resource assets over a large geographic space. To assist in the effectiveness of lead national organizations, like BNT, they need to be supported by local communities in their efforts.

In collaboration with MPA staff, the project will help establish community support groups and provide support to strengthen existing youth environmental programmes in schools in closest proximity to AWSNP and BPNP. The primary aim of community engagement will be two-fold; (i) to enable them to assist through citizen science approaches in species and habitat monitoring and in ecosystem restoration techniques under the guide of the Bahamas National Trust to contribute to the pool of knowledge on ecosystem status and implementation of community-based management interventions and (ii) fostering the communal-level adoption of protected areas to as to deepen the sense of environmental stewardship over resources that are being used by the community.

The community-based species and habitat monitoring effort will entail community members assisting with monitoring activities outlined in Table 11 under Output 2.3.1. Community members will be trained in species identification, simple survey methodologies (e.g. line transects) and how to record sightings. Training will be provided by BNT in collaboration with the Perry Institute for Marine Science (PIMS).

The main community stakeholders to be engaged at each site include:

AWSNP – flyfishing lodge owners, guides and interns from the Bahamas Agriculture and Marine Sciences Institute (BAMSI);

BPNP – Bahamas National Trust Collegiate Chapter at the University of the Bahamas (UB); the Collegiate Chapter will assist with outreach to neighbouring high schools, namely Anatole Rodgers Senior High School, CV Bethel Senior High School and Bahamas Academy.

The Bahamas National Trust Collegiate chapter was established in 2016 to support national park programs and projects through involving local university students in training opportunities, educational activities and field experiences with the Bahamas National Trust. It currently operates at two tertiary institutions - UB in New Providence and BAMSI in Andros. The members of the Chapter have benefited from previous field training activities; this along with their studies majoring in natural sciences makes them an ideal group to participate in the project's adoption schemes for Andros West Side and Bonefish Pond National Parks.

The adoption scheme will be effected at Andros West Side and Bonefish Pond National Parks and will seek to build community buy-in and support for conservation and park management activities. Engaging local stakeholders as trainees and participants in these "adoption schemes" will strengthen ownership of the programme by the continuity. It is expected that local stakeholders, and key partner organisations, including the BNT, TNC and the University of the Bahamas (UB) will also play a key role in the scaling up the results of this output, facilitating implementation of similar "adoption schemes" at other protected areas. Lessons from this initial experience will be documented and serve as important instruments in the scaling-up of community adoption schemes.

#### **4) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTE, LDCF, SCCF, and co-financing**

The incremental cost of the project, USD\$18,215,310, is required to achieve the project's global environmental benefits. Of this amount USD\$6,243,004 (representing 34.27%) is being requested from GEF. The remaining amount of USD\$11,972,306 (65.73%) of the total cost will come from the Government of The Bahamas and other national and international partners. The figure includes both in-kind and cash contributions. Details on the incremental cost reasoning is provided in the table below.





Component	Baseline (B) (excluding PM and M&E costs)	Alternative (A) (excluding PM and M&E costs)	Increment (A-B) (excluding PM and M&E costs)
Component 1: Integrated Natural Resource Management systems for marine protected areas and adjacent land/seascapes			
Outcome 1.1: Better effective planning for conservation and sustainable development in areas encompassing MPAs obtained through information on ecosystem conditions and services	<ul style="list-style-type: none"><li>There is limited information on ecosystem conditions and services, including lack of spatial data to assist PA management agencies in fulfilling their conservation mandate.</li></ul>	<ul style="list-style-type: none"><li>Information is available on ecosystem conditions and services to support better effective planning for conservation and sustainable development in land use and natural resource management agencies</li></ul>	Total Cost: \$1,531,000 Cost to GEF: \$1,281,000 Co-financing: \$250,000
Output 1.1.1: Spatially-based decision support systems for INRM are available for use in cross-sectoral landscape planning & management and in policy and regulatory development	<ul style="list-style-type: none"><li>No institutions possess or are using a spatially-based decision support system for INRM</li></ul>	<ul style="list-style-type: none"><li>SDSS is live and populated and it is being utilized by Government agencies and NGOs responsible for land use and natural resource management<ul style="list-style-type: none"><li>SDSS is available to at least 4 institutions for use in cross-sectoral landscape planning and management and in policy and regulatory development</li></ul></li></ul>	
Outcome 1.2: Integrated natural resource management (INRM) framework supports the reduction of pressures on biodiversity from competing land uses in the wider landscape	<ul style="list-style-type: none"><li>No INRM framework exists.</li><li>PA management agencies are challenged in reducing pressures on biodiversity from competing land uses as protected areas are not always factored into land use and development planning</li></ul>	<ul style="list-style-type: none"><li>An INRM framework model is developed through establishment of a decision support system and ecosystem zoning plan to elevate planning from site level to the ecosystem level</li></ul>	
Output 1.2.1: Ecosystem-wide Zoning Plans developed and approved for areas encompassing 4 target MPAs	<ul style="list-style-type: none"><li>A zoning plan exists for South Berry Islands Marine Reserve managed by the Department of Marine Resources, but it focuses on compatibility of habitats with human uses moreso than ecosystems</li></ul>	<ul style="list-style-type: none"><li>Ecosystem zoning plans covering 688,046 ha are completed for AWSNP, BPNP, ECLSP, LNP and MHCNP</li></ul>	
Component 2: Effective Protected Area Management			
Outcome 2.1: Improved PA management effectiveness at 5 MPA sites: Moriah Harbour Cay, Lucayan, Exuma Cays, Andros West Side and Bonefish Pond (covering 688,046 ha)	<ul style="list-style-type: none"><li>Improving management effectiveness is challenging for PA management agencies with limited local support and lack of resources (financial, infrastructure, equipment and staff)</li></ul>	<ul style="list-style-type: none"><li>Management effectiveness is increased through project interventions that assist with local community engagement, and fulfillment of needs with respect to infrastructure, equipment, staff and training<ul style="list-style-type: none"><li>2024 METT scores show a 15% increase</li></ul></li></ul>	Total Cost: \$15,102,257 Cost to GEF: \$4,249,618 Co-financing: \$10,852,639

<b>Component</b>	<b>Baseline (B) (excluding PM and M&amp;E costs)</b>	<b>Alternative (A) (excluding PM and M&amp;E costs)</b>	<b>Increment (A-B) (excluding PM and M&amp;E costs)</b>
Output 2.1.1: PA Management Advisory Boards for recently established MPAs (Moriah Harbour Cay and Lucayan National Parks) established and provided with operational capacity	· Local community involvement in PA management is sporadic with few mechanisms for community members to engage, resulting in low support for MPAs	· Advisory Boards provide an opportunity for representative from community organizations to actively participate in PA management. Boards also provide a mechanism for wider community to engage regularly, increasing support for and sense of ownership of MPAs	
Output 2.1.2: Management Plans developed / updated and under implementation at 5 MPA sites	· Some management plans do exist, but implementation is hampered by resource needs (e.g. staff, infrastructure)	· Management plans are developed/updated and under implementation for 5 MPAs – AWSNP, BPNP, ECLSP, LNP, and MHCNP	
Output 2.1.3: Infrastructure established and staff deployed and capacitated at 5 MPA sites	· Infrastructure and staffing needs are some of the most significant challenges to MPAs fulfilling their conservation goals and becoming financially sustainable	· Infrastructure installed at 5 MPAs along with staff being hired and trained, resulting in increased management effectiveness for these sites	
<b>Outcome 2.2: Increased financial sustainability of the Lucayan and Moriah Harbour National Parks</b>	· Financial gaps have been identified for both parks	· Financing sustainability is increased for both parks, which can then serve a model for other protected areas	
Output 2.2.1: Business Plans developed and under implementation for Lucayan and Moriah Harbour NPs	· Neither park has a business plan, making sustainable financing a challenge. Lucayan has some revenue streams, but faces challenges with various aspects of each. Moriah Harbour has no revenue streams.	· Business plans are developed for both parks and detail financial needs, sustainable financing mechanisms and cost-saving techniques. Plans can be used as models for other protected areas within the national system	
<b>Outcome 2.3: Stable population numbers for priority species in targeted project sites:</b> <b>1. Small-tooth sawfish</b> <b>2. Spiny lobster</b> <b>3. Commercially important sponges</b> <b>4. Nassau grouper</b> <b>5. Live coral</b>	· Population numbers and/or density for these priority species decline over time.	· 10% increase in AGRRA assessment index for coral over baseline · 10% in AGRRA assessment index for indicator fish species over baseline	

Component	Baseline (B) (excluding PM and M&E costs)	Alternative (A) (excluding PM and M&E costs)	Increment (A-B) (excluding PM and M&E costs)
Output 2.3.1: Species Conservation and Monitoring Plans developed and priority actions (e.g. monitoring) under implementation for priority species at 5 MPA sites	<ul style="list-style-type: none"><li>No plans exist for priority species within the Bahamas National Protected Area System. Lack of planning makes it difficult to confirm whether conservation goals are being met for species within MPAs.</li></ul>	<ul style="list-style-type: none"><li>Plans are developed for priority species in AWSNP, BPNP, ECLSP, LNP and MHCNP. These plans can be utilized in other MPAs where these species occur.</li></ul>	
<b>Outcome 2.4: 2,105,539[5]<sup>5</sup> tCO<sub>2</sub>-eq emissions from buildings in protected areas are reduced (indirect and direct impacts)</b>	MPAs are heavily reliant on fossil fuels for energy generation, mainly in the form of diesel generators. Emissions are not being monitored to determine carbon impact of these sites.	Renewable energy generation and energy efficiency measures are introduced for at least 3 MPA sites. This will serve as the impetus to expand these measures across the national system.	
Output 2.4.1: Up to 5 carbon neutral Marine Protected Area facilities (photovoltaic substitute for diesel generators)	There are no carbon neutral facilities in MPAs.	3 carbon neutral MPA facilities will be constructed at ECLSP, LNP and BPNP. These 3 facilities will result in a minimum reduction of emissions of 1,052,769.6 tCO <sub>2</sub> -equivalent over a 15-year period.	
<b>Component 3: MPA management integrated with sustainable development in the broader land / seascape</b>			
<b>Outcome 3.1: Enhanced provision and appreciation of community of services from ecosystems in MPAs and surrounding areas as a result of:</b> <b>1) rehabilitation of degraded land</b> <b>2) changes in production sector practices leading to both development and conservation objectives</b> <b>3) long-term custodianship of communities of the ecosystems</b>	<ul style="list-style-type: none"><li>Communities neighbouring MPAs often lack an appreciation for the ecosystem services these areas provide. This can even lead to some community members negatively impacting MPAs through their actions (e.g. pollution, introduction of invasives).</li></ul>	<ul style="list-style-type: none"><li>Awareness of ecosystem services provided by MPAs and the biodiversity these areas protect is increased in neighbouring communities. This leads to increased engagement in MPA management and a sense of ownership of these areas.<ul style="list-style-type: none"><li>20% increase in Biodiversity Barometer survey score indicates increased awareness amongst community residents</li></ul></li></ul>	Total Cost: <b>\$619,600</b> Cost to GEF: <b>\$319,600</b> Co-financing: \$300,000
Output 3.1.1: Reduced impacts from adjacent areas on MPAs through Invasive Alien Species (IAS) management and ecosystem restoration ( at least 100 ha)	<ul style="list-style-type: none"><li>Invasive plant species, such as Australian Pine and Paperbark tree, are negatively impacting land areas of some MPAs and displacing native plant species which are important to ecosystem health and services provision</li></ul>	<ul style="list-style-type: none"><li>Invasive removal and control occurs at BPNP and LNP along with ecosystem restoration<ul style="list-style-type: none"><li>10 ha of land in/adjacent to BPNP is restored</li><li>90 ha of land in/adjacent to LNP is restored</li></ul></li></ul>	

<b>Component</b>	<b>Baseline (B) (excluding PM and M&amp;E costs)</b>	<b>Alternative (A) (excluding PM and M&amp;E costs)</b>	<b>Increment (A-B) (excluding PM and M&amp;E costs)</b>
Output 3.1.2: Reduced use of agricultural chemicals in areas containing sensitive biodiversity and crucial water resources	· Some farms adjacent to MPAs are negatively impacting these areas through introduction of agricultural chemicals. These hazardous chemicals can pollute marine waters and impair the health of sensitive species	· Farmers in Andros and New Providence are trained in good agricultural practices (GAPs) for the crop systems in place, and in alternative methodologies for pest control and soil enrichment with improved use efficiency and/or less reliance on toxic chemicals.	
Output 3.1.3: Pilot communities and/or schools are supporting management of two MPAs (“adoption schemes”)	· There are limited opportunities for community organization and schools to be involved in ecosystem monitoring and restoration activities in MPAs	· Adoption schemes are developed for AWSNP and BPNP and provide a sustained mechanism for engagement of community organizations and schools in monitoring and restoration activities. The lessons learned through these pilot schemes will enable such programs to be developed for other PAs within the national system.	

#### 5) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

Global environmental benefits will be quantified and monitored using some of the 2013 Aichi Passport indicators. The project aligns with Aichi Biodiversity Targets 1, 5, 9 and 11. The project will also aid in The Bahamas’ achievement of SDGs 8, 9, 11, 12, 13, 14 and 15.

The project will create an enabling environment within the Bahamas National Protected Area System (BNPAS) for integrated landscape management across agriculture, ecotourism, fisheries, construction and conservation sectors. The integrated landscape management practices will be adopted by Government agencies and NGOs that work in the area as well as other islands in The Bahamas. The project is intended to produce a successful model of integrated landscape and seascape management that the Government of The Bahamas will replicate across the archipelago. The model can also be shared with other Small Island Developing States regionally and globally.

#### 6) Innovation, sustainability and potential for scaling up

##### Innovation:

The Bahamas has been identified as a project site for Phase 2 of Blue Finance on Financial and Legal Arrangements. The intent is to engage Blue Finance as an international partner. An invitation will be extended to engage the team with responsibility for the Caribbean region to participate as appropriate in providing technical guidance and facilitate innovative mobilization of resources to fund PA management in the country.

##### Sustainability:

The project will result in development of an SDSS to facilitate INRM to support future decision making with respect to natural resource management and development. The SDSS can also result in development of a user community that not only shares data, but also shares their research and lessons learned to benefit others in the community. The intent is that the SDSS will foster not only improved decision-making, but also more collaborative efforts.

Development of the ecosystem zoning plans will contribute to national zoning protocols with natural resource management integrated into land use planning moving forward.

The project will result in the development of a user fee system that can be extended to all protected areas, and development of a varying rate schedule covering entrance and activity fees, based on the location of each park, visitor demand and staffing requirements. This project intends to actualize a modular approach at the national level in roll-out, targeting the PAs that have significant visitor development potential and have significant conservation and protection value. Due consideration is given to less profitable parks in the wider schemes of PA management in the country under the national framework from the completed national studies and their recommendations, including centralizing of revenue generated so that less profitable parks can receive consistent or sustained annual allocations.

The financial analyses and piloting of renewable energy interventions will provide guidance on the business potential of RE options and energy efficient applications, growing the availability of such solutions and thereby growing the overall sustainability of carbon neutral electricity supply in The Bahamas. The business plans and financing strategies developed during the project will provide guidance on implementation of sustainable finance mechanisms to sustain the MPAs as well as cost-saving measures in PA management.

The project will assist in establishing a participatory PA Management Advisory Board for each of the two new MPAs, whose work will definitely contribute to the sustainability of the project results and interventions in the areas.

#### Scaling-up:

Coordinating arrangements for the project will ensure that opportunities for scaling up all facets of the project outcomes are taken up through mechanisms, such as the National Implementation Support Partnership, which is focused on implementation of the Programme of Work on Protected Areas (PoWPA) and will be involved in project implementation. In addition, the BEST Commission as the national environmental agency for The Bahamas works throughout the country and can use its role within government to facilitate scaling up the successes of the project throughout the country. The project also will involve other national agencies, such as the Bahamas National Trust responsible for all national parks; the Trust can facilitate scaling up activities throughout the country.

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[1] For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

- [2] Zones identified under the 2013 Management Plan for Andros West Side include (1) Conservation zone, (2) Sensitive resource zone, (3) Backcountry camping zone, (4) Day use zone, and (5) Park administration/visitor services zone (in communities neighbouring the Park).
- [3] Commercially important sponge species – Velvet sponge (*Hippospongia gossypina*), Hardhead sponge (*Spongia Barbara dura*), Grass sponge (*Spongia tubilifera*), and Wool sponge (*Hippospongia lachne*).
- [4] Estimate – to be confirmed during PPG
- [5] Estimate – to be confirmed during PPG

**A.2. Child Project?**

**If this is a child project under a program, describe how the components contribute to the overall program impact.**

N/A

**A.3. Stakeholders**

**Please provide the Stakeholder Engagement Plan or equivalent assessment.**

Find below.

**Documents**

Title	Submitted
9791 CEO Endorsement doc v9	
Bahamas GEF 2020 ProDoc v11	
Appendix 1 v11 Detailed GEF 2020 budget	
Appendix 2 v6 Detailed GEF 2020 CF budget	
Appendix 7 v5 Costed M&E plan	

Title

Submitted

**Appendix 9 Consultant Costs 20Nov19**

**Appendix 10 v4 TORs 20Nov19**

**GEFID9791\_Meeting the Challenge of 2020 in The Bahamas\_20Nov19\_response**

**In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.**

Stakeholder analysis completed during PPG phase is shown in Table 6 below from the Project Document. Key stakeholders to the project are described in Table 7.

Table 6: Stakeholder Analysis

WHO	WHY			
	Interest	Influence	Expertise	Affected
Public Sector				
BEST Commission	3	3	3	3
University of The Bahamas	1	2	2	1
Department of Agriculture	1	2	2	2
Department of Marine Resources	1	2	3	3
Department of Meteorology	2	2	3	2
Department of Forestry	3	2	3	2
Ministry of the Environment and Housing	3	3	3	3
Ministry of Finance	1	3	1	1
Ministry of Tourism	1	3	1	2
Ministry of Works and Urban Development	1	3	2	1



WHO	WHY			
	Interest	Influence	Expertise	Affected
Royal Bahamas Defence Force (RBDF)	1	2	2	2
Bahamas Power & Light (BPL)	2	3	3	2
Non-Governmental Organizations				
Bahamas National Trust (BNT)	3	3	3	3
Bahamas Reef Environment Educational Foundation (BREEF)	3	2	2	3
Caribbean Biodiversity Fund (CBF)	3	2	2	2
Inter-American Institute for Cooperation on Agriculture (IICA)	3	3	3	2
The Nature Conservancy (TNC)	3	2	3	3
Private Sector				
Grand Bahama Port Authority	2	3	2	2
Grand Bahama Power	2	3	3	2
Members of the Public				
Local Government Councils (Andros, Exuma, Berry Islands and Grand Bahama)	1	3	1	3
Residents of North & South Andros	2	3	1	3
Residents of Georgetown, Exuma	2	3	1	3
Residents of Chub Cay, Berry Islands	1	3	1	3
Residents of Freeport, Grand Bahama	3	3	1	3
Residents of New Providence	3	3	1	3

Table 7: Key Stakeholders

Stakeholders	Role	Involvement in Project
BEST Commission, Ministry of Housing and Environment	<b>Lead overall Executing Agency and co-financier</b>	Involvement in project steering committee. Liaison agency with UNEP and GEF as Operational Focal Point. Lead agency on liaison with residents of New Providence.
Bahamas National Trust (BNT)	Partner executing agency and co-financier	Involvement in project steering committee. Project management on a day-to-day basis, guiding all project interventions in national parks. Lead agency on liaison with residents of Andros and Grand Bahama.
Inter-American Institute for Cooperation on Agriculture (IICA)	Partner executing agency and co-financier	Involvement in project steering committee. Project management on a day-to-day basis, guiding all project interventions on farms. Lead agency on liaison with farming community.
Ministry of Environment and Housing	Consultative partner and co-financier	Financial oversight. Liaison with high levels of Government (such as Cabinet). Expert advice on climate change and renewable energy.
Department of Forestry	Consultative partner	Expert advice on ecosystem monitoring and engagement with production sectors.
Ministry of Tourism	Consultative partner	Advice on tourism development plans for The Bahamas. Engagement on incorporation of project outputs into planning and development mechanism of the Ministry of Tourism.
Bahamas Power & Light (BPL)	Consultative partner	Expert advice on energy conservation and renewable energy Participation in energy-related project interventions.
Grand Bahama Power Company	Consultative partner	Expert advice on energy conservation and renewable energy Participation in energy-related project interventions.
The Nature Conservancy Bahamas Office	Consultative partner and co-financier	Expert advice on conservation matters. Participation in conservation-related project interventions.
Bahamas Reef Environment Educational Foundation (BREEF)	Consultative partner	Expert advice on marine and education matters. Participation in marine- and education-related project interventions.

Residents of Andros (North & South), Exuma (Georgetown), Berry islands (Chub Cay), Grand Bahama (Freeport) and New Providence	Stakeholders	Involvement in all project interventions on their respective islands, including PA management advisory boards, management plan development, species conservation and monitoring, and MPA adoption schemes. Beneficiaries of the project through skills gained from project training activities and ecosystem services provided by MPAs.
Local Government Councils in Andros, Exuma, Berry Islands and Grand Bahama	Stakeholders	Involvement in all project interventions on their respective islands, including management plan development, species conservation and monitoring, and MPA adoption schemes. Beneficiaries of the project through skills gained from project training activities and ecosystem services provided by MPAs.
Farming community	Stakeholders	Involvement in project interventions related to reducing the use of agricultural chemicals. Beneficiaries of the project through skills and increased awareness about chemicals and safer alternatives gained from project training activities.
Ministry of Works and Urban Development (MOWUD)	Stakeholders	Involvement in project interventions related to RE and EE.
Caribbean Biodiversity Fund (CBF)	Consultative & co-financier	Expert advice on conservation matters, particularly as it relates to business planning and sustainable finance.

**Select what role civil society will play in the project:**

**Consulted only;**

**Member of Advisory Body; Contractor; Yes**

**Co-financier; Yes**

**Member of project steering committee or equivalent decision-making body; Yes**

**Executor or co-executor; Yes**

**Other (Please explain)**

N/A

**A.4. Gender Equality and Women's Empowerment**

**Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).**

#### Overview

Project activities are expected to involve women at every level, from decision-making to field data collection and training. Gender data will be collected during Biodiversity Barometer survey as well as at all stakeholder meetings and training sessions. Equitable gender representation will be sought for PA Advisory Boards and adoption schemes.

Existing partner organizations and community-based organizations with strong gender-based agendas will be encouraged to participate in protected area management and support the process, such as the Department of Gender and Family Affairs, as well as to enable project outcomes to be carried forward in their work. The Department is currently developing a policy on gender equality and equity for endorsement by Cabinet before the end of 2019; the policy contains commitments on increasing participation of women in national development with respect to the environment and sustainable development. It should be noted that access to capacity building opportunities within the project will be designed so as to promote equity.

While men tend to dominate agricultural sector, Bahamian women that farm have formed their own farmers' association, Bahamas Network of Rural Women Producers (BAHNROP), which will be involved in Component 3 activities related to good agricultural practices (GAP).

#### Gender Inequalities

No gender inequalities are envisioned to occur during project activities. Women will be given equal opportunity to participate in the project, whether that be through employment, decision-making and leadership roles, stakeholder engagement or training.

### **Documents**

Title	Submitted
9791 CEO Endorsement doc v7 03Sep19 (revised 10Sep19)	
GEFID9791_Meeting the Challenge of 2020 in The Bahamas 03Sep19	
Appendix 4 v9 Results Framework 03Sep19	

Title

Submitted

**Bahamas GEF 2020 ProDoc v10 03Sep19**

**9791 CEO Endorsement doc v7 03Sep19**

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?**

Yes

**If yes, please upload document or equivalent here**

Emphasis will be placed on advancing gender mainstreaming within policy and capacity building in support of all the components. Gender audits and targeted analyses to ascertain derived benefits by stakeholders will be conducted, along with training that will strengthen gender-equitable access to spatially-based decision support system, tools for managing protected areas and associated ecosystem services, and other benefits derived from project implementation. Gender data will be collected during Biodiversity Barometer survey as well as at all stakeholder meetings and training sessions. Equitable gender representation will be sought for PA Advisory Boards and adoption schemes. While men tend to dominate the agricultural sector, Bahamian women that farm have formed their own farmers' association, Bahamas Network of Rural Women Producers (BAHNROP), which will be involved in Component 3 activities related to good agricultural practices (GAP).

**If possible, indicate in which results area(s) the project is expected to contribute to gender equality:**

**Closing gender gaps in access to and control over natural resources; Yes**

**Improving women's participation and decision making Yes**

**Generating socio-economic benefits or services or women Yes**

**Will the project's results framework or logical framework include gender-sensitive indicators?**

Yes

Find attached Appendix 4: Results Framework

#### **A.5. Risks**

**Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being, achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.**

Risk	Risk Level	Risk Mitigation Strategy
Challenges in coordination and timely action among key national stakeholders	Low/ Medium	Several of the key stakeholders are already engaged through the National Implementation Support Partnership (NISP) for the Programme of Work on Protected Areas (PoWPA), namely BEST, BNT, DMR and TNC. Regular meetings of the Project Steering Committee and participation in project activities will also aid in coordination and timely action by key stakeholders.
Political elections result in changed commitments to the Caribbean Challenge and/or the management of marine protected areas	Low / Medium	The project is designed to involve multiple agencies and sectors in a consultative preparatory phase, so that the project interventions are non-partisan and widely accepted. Multiple agencies and sectors will also be involved in the implementation of the project.
Climate change variability: A major natural disaster (such as a hurricane) strikes The Bahamas during the project, with negative impacts on MPA infrastructure, species / habitat health, etc.	Medium	The project attempts to manage this risk by supporting activities to improve climate change resiliency and reduce vulnerability to natural disasters in the MPA system and buffer zones. This is particularly true for the planned restoration interventions in Bonefish Pond and Lucayan National Parks. In the event of a major disaster occurring during the course of the project implementation, depending on assessments (under the co-financing commitments by partners), adaptive management measures will be taken in consultation with the national partners and the implementing agency to ensure that core outcomes are realized.
Insufficient sources of long-term finance to maintain sustainable management of project interventions	Low	The project will enhance the financial sustainability of the national protected area system by seeking to operationalize new SFMs (e.g. user fees) in addition to those already provided through the Bahamas Protected Areas Fund (BPAF) and associated drawdown of the Caribbean Biodiversity Fund (CBF). The project will strongly support the development of business plans and cost-saving strategies for targeted project sites that can be replicated across the PA system.
Recommendations of the ecosystem zoning plans meet difficulties in being enforced.	Medium	To mitigate the risk that zoning plans will not be implemented, a wide consultation process will precede the finalization of the plans. The Government of The Bahamas fully backs development of these zoning plans, and acknowledges the need to incorporate the use of EIA into zoning plans and consultation processes preceding the allocation of land near MPAs for development purposes.
Project implementation does not keep pace with anticipated workplan	Medium	One responsibility of the National Executing Agency (i.e. BEST), National Project Coordinator and Project Steering Committee is to ensure adherence to the workplan to assist project partners in overcoming challenges or delays that may impact the workplan. Timely and regular communication of the organizations and individuals involved in the project management structure will ensure that delays are not prolonged due to inaction.
National agencies, both public and non-profit, do not utilize project outputs to improve ecosystem health in communities and islands where they work. There is no commitment to replicate lessons learned and successes.	Low	Key agencies, both public and non-profit, have already made a commitment to work as partners for implementation of the project, including making co-financing commitments. The Master Plan for the Bahamas National Protected Area System has already been endorsed nationally and this project serves to implement components of that Plan. Agencies involved have been working to implement the Master Plan since it was endorsed in 2012.

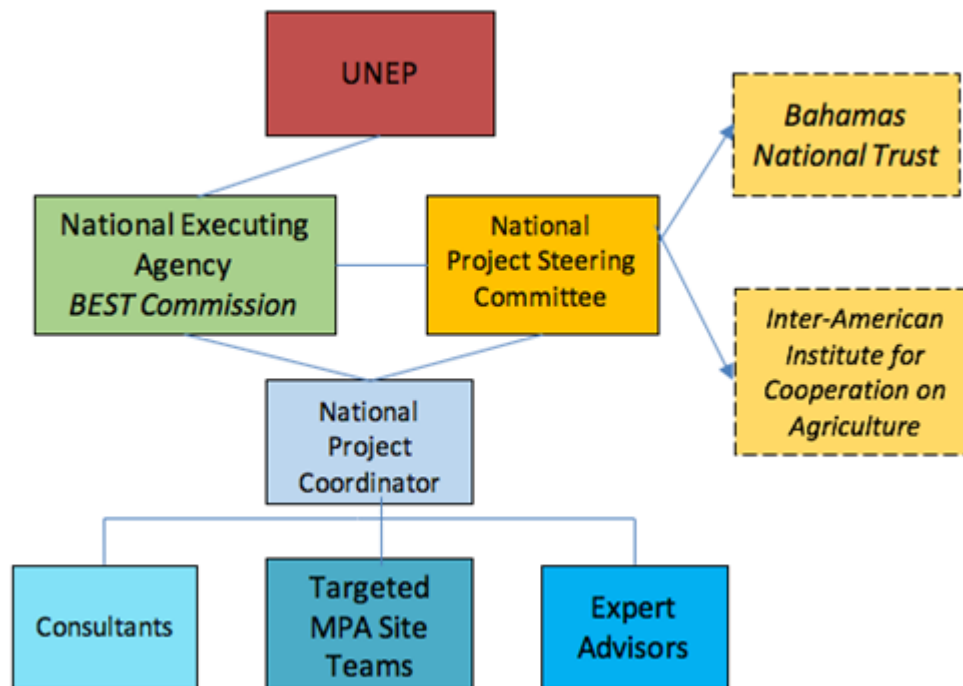
There is no high-level political or local community support for proposed MPA new fee structure.	Low	The Government has demonstrated its support for sustainable financing of protected areas through enactment of the Bahamas Protected Area Fund Act legislation and financing of this Fund. It is unlikely that their support will not continue for sustainable financing mechanisms. Local communities will be engaged through PA Advisory Boards and public outreach activities in development of fees and their role in sustaining PAs.
Stakeholder participation in project interventions is low.	Low	Project interventions have been designed to engage as many stakeholders as possible, including PA Advisory Boards, adoption schemes, habitat restoration and ecosystem monitoring. Having these opportunities for engagement through the project will ensure stakeholders play an active role in implementation and will continue to support PAs after the project is complete.

#### **A.6. Institutional Arrangement and Coordination**

**Describe the Institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.**

##### Institutional Arrangements for Project Implementation

The implementation arrangements are presented in the figure below.



NOTE: The constitution of the PSC will be elaborated at project inception (to include private sector representation and community representation)

Duties of the UNEP as the Implementing Agency (IA) will include:

- Provide consistent and regular project oversight to ensure the achievement of project objectives
- Liaise between the project and the GEF Secretariat,
- Ensure that both GEF and UN Environment policy requirements and standards are applied to and are met (reporting obligations, technical, fiduciary, M&E)
- Ensure timely disbursement/sub-allotment of funds, based on the agreed legal documents
- Approve budget revision, certify fund availability and transfer funds
- Organize mid- and end-term evaluations and audit
- Provide technical support and assessment of the execution of the project



- Provide guidance if requested to main TORs/MOUs and subcontracts issued by the project
- Follow-up with NEA for progress, equipment, financial and audit reports
- Certify project operational completion

Duties of the BEST Commission as the National Eexeuting Agency (NEA) will include:

- Establish the Project Steering Committee (PSC);
- Appoint a full-time National Project Coordinator (NPC), taking into account the sustainability of activities related to the GEF 2020 Project;
- Provide the necessary scientific, technical, financial and administrative support to the work of the PSC, working in close cooperation with relevant government agencies, the scientific community and the public and private sectors;
- Ensure that regular reports, financial accounts, and requests are submitted to UNEP;
- Review all documentation to ensure that these are consonant with National Government policies and procedures.

#### Coordination with On-going Projects

The project's components align with the components of the forthcoming GEF funded UNEP implemented project entitled "Implementing Integrated Land, Water and Wastewater Management in The Bahamas" (Bahamas IWEco Project) which will be running concurrently.

The Bahamas Protected project which runs from 2016 to 2019, is a partnership between BNT, Bahamas Reef Environment Educational Foundation (BREEF), and The Nature Conservancy (TNC) with funding from Oceans 5. It has enabled a number of interventions in marine protected areas in The Bahamas.

The Challenge of 2020 project will be carried out in close coordination with the ongoing GEF funded project in the Bahamas portfolio - "Pine Islands - Forest/Mangrove Innovation and Integration". The Pine Islands project seeks to integrate biodiversity values, ecosystem services values and precepts of sustainable forest management and land-use into enhanced land-use planning in The Bahamas. Its components include establishment of a forestry assessment and monitoring system, establishment of a National Forestry Estate and development of the concept of multi-functional conservation for coastal communities.

#### Coordination with Past Projects

The project is aligned with the 2005 GEF-funded National Capacity Needs Self-Assessment (NCSA) Project which identified and prioritized the most critical needs for implementing the four key international environmental Conventions related to biodiversity, climate change, land degradation and wetlands. The NCSA report provides recommendations on how the country can enhance its capacity to meet these commitments under the Conventions.

**Additional Information not well elaborated at PIF Stage:**

#### **A.7. Benefits**

**Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?**

##### Socio-Economic Benefits:

Project interventions will be beneficial to agricultural and fisheries sectors through its elimination of threats to resilience of MPAs and surrounding areas as well as maintaining ecosystem services provided by these areas. Persons trained through the project will be able to benefit from increased skills with salary raises or employment opportunities.

The project will foster community involvement in MPA management and conservation, moving to a model of partnership where there can be conflict. When communities and MPA managers can work cooperatively, the benefits are felt way beyond the boundaries of the park and activities are often more easily replicated in other locations because of the positive outcomes through such partnerships.

##### Project Cost-effectiveness:

The cost-effectiveness of the project is achieved through project interventions that enable the targeted project sites to become more financially stable. For example, infrastructure, such as visitor centres, kiosks and mooring buoys, will enable the collection of user fees. Installation of renewable energy systems, solar lighting and energy-efficient appliances will assist in reducing costs of power generation which is currently occurring using diesel fuel.

Partners have already been identified through the PPG phase and have committed cash and in-kind resources to maximize GEF funding available for the various project interventions. For example, the Shedd Aquarium has committed co-finance of its research vessel which will be utilized for species monitoring activities in the targeted project sites.

Cost-effectiveness will also be demonstrated through the project's ability to leverage additional resources for biodiversity and integrated natural resource management as partnerships are built with the various sectors and stakeholders, including the Inter-American Institute for Cooperation on Agriculture, Ministry of Tourism, the BNGIS Centre and the Ministry of Works.

#### **A.8. Knowledge Management**

**Elaborate on the Knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.**

One of the primary opportunities for sharing of lessons learned will be through the Cartagena Convention Secretariat, particularly within the scope of the Specially Protected Areas and Wildlife (SPAW) Protocol in its meetings of the Contracting Parties (COP) under the Intergovernmental Meetings of the Cartagena Convention. The Bahamas is also in the process of reactivating its Clearing House Mechanism for biodiversity which will provide another opportunity to share lessons learned internationally, particularly with Parties to the Convention on Biological Diversity. The Caribbean Biodiversity Fund (CBF) regional meeting will enable The Bahamas to share project accomplishments and lessons learned with other Caribbean countries.

Knowledge management for GEF 2020 project will involve:

- Consistent communication amongst the institutions managing the project (i.e. NEA, NPC, PSC and UNEP) as well as with key stakeholders identified through stakeholder analysis;
- Communication with ongoing complementary projects, including IWEC and Pine Islands project, to benefit from lessons learned and complementary training activities and stakeholder engagement;
- Data collected during the project will be provided for inclusion in the SDSS will be available to organizations nationally. Opportunities to share data with other projects occurring nationally will be pursued; and
- Raising community awareness about issues, such as biodiversity, invasive alien species, ecosystem monitoring and restoration, provide an opportunity to create knowledge tools that can be shared nationally and globally. Such tools may include infographics, training modules and social media postings.

## **B. Description of the consistency of the project with:**

### **B.1. Consistency with National Priorities**

**Describe the consistency of the project with nation strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.**

The project is consistent with the national priorities as outlined in the:

- 1999 National Biodiversity Strategies and Action Plan (NBSAP)
- 2003 and 2013 National Invasive Species Strategy (NISS)
- 2005 National Wetlands Policy
- 2005 Bahamas National Environmental Policy
- 2005 National Environmental Management and Action Plan
- Bahamas 2020 Declaration

- 2011 4th National Report to the CBD
- 2013 National Energy Policy
- 2015 Second National Communication on Climate Change
- 2015 Intended Nationally Determined Contribution (INDC)
- 2016 National Fisheries Strategic Plan

**C. Describe The Budgeted M & E Plan:**

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed by the executing agency and UNEP.

The project M&E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in **Appendix 4** to the ProDoc includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets. These indicators along with the key deliverables and benchmarks included in **Appendix 6** will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in **Appendix 7**. Other M&E related costs are also presented in the Costed M&E Plan and are fully integrated in the overall project budget.

The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned at the inception workshop. Day-to-day project monitoring is the responsibility of the project management team, but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the National Project Coordinator to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

The Project Steering Committee will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the Project Steering Committee at annual intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project

Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

In-line with UNEP Evaluation Policy and the GEF's Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation and, additionally, a Mid-Term Review will be commissioned and launched by the Project Manager in the third quarter of 2021 as indicated in the project milestones. The possibility of a Mid-Term Evaluation will be discussed with the Evaluation Office. The review will include all parameters recommended by the GEF Evaluation Office for terminal evaluations and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. Such parties were identified during the stakeholder analysis (see section 5 of the project document). The Project Steering Committee will participate in the mid-term review and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented.

The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalised and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process. The standard terms of reference for the terminal evaluation are included in Appendix 10. These will be adjusted to the special needs of the project.

The GEF tracking tools will be updated at mid-term and at the end of the project and will be made available to the GEF Secretariat along with the project PIR report. As mentioned above the mid-term and terminal evaluation will verify the information of the tracking tool.

**PART III: Certification by GEF partner agency(ies)**

**A. GEF Agency(ies) certification**

<b>GEF Agency Coordinator</b>	<b>Date</b>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email</b>
Kelly West Senior Programme Manager & Global Environment Facility Coordinator Corporate Services Division UN Environment	5/29/2019	Christopher Cox, Task Manager	5073053173	christopher.cox@un.org

**ANNEX A: PROJECT RESULTS FRAMEWORK** (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Find attached revised Appendix 4: Results Framework

**ANNEX B: RESPONSES TO PROJECT REVIEWS** (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

**GEF Secretariat Comments**

Comments	Response
During PPG, please continue to seek additional partners and co-financing. Are there opportunities for private sector involvement or groups like the International Conservation Corps?	There was a reach-out during the PPG phase to secure additional partners. New partners to the project now include the Shedd Aquarium and the Perry Institute for Marine Sciences. During implementation opportunities will be pursued to engage private sector and possibly the International Conservation Corps given that they have close engagement in projects in the Caribbean portfolio.
During PPG, please keep in mind both the points around using the RE installations in PAs to catalyze broader adoption and ensuring alignment with the GEF strategy on IAS. For IAS, we target activities that will generate long term outcomes rather than simply funding a piece of initiatives that require long term funding. Also, please discuss how these activities will coordinate with the regional UNEP project on IAS for the OECS and Barbados.	Both these considerations have been taken into account during the PPG phase. The RE installations are intended to demonstrate replicability across the protected area network in the Bahamas and were designed keeping in mind ease of installation and maintenance, with operational cost savings in the longer term. In the interventions for control of IAS, the alignment with the GEF strategy was kept in consideration. The targeted interventions will include a strong emphasis on capacity building for stakeholders involved in the activity, with capture of lessons learned for replication across other protected areas in the country. Within the scope of the wider GEF-IAS project in the region, lessons from this project will be taken on board through coordination via the Task Manager.
Also, for component 3, please use indicators that look at the actual impact of the activities undertaken (IAS control for instance) rather than public perception.	The indicators have been more clearly defined in terms of spatial extent of IAS control; Refer to the results framework
We welcome the development of a gender plan as part of the PPG.	The project will support gender considerations within both policy and capacity building across all the components in respect to gender-equitable access to decision making tools, representation in management within protected area management boards and the protected area adoption schemes. Gender audits will be conducted to ascertain derived benefits. This will be supported by Biodiversity Barometer surveys and other data collection during stakeholder meetings and training sessions. Under component 3 of the project the Bahamas Network of Rural Women Producers (BAHNROP), will be involved in Component 3 activities related to good agricultural practices (GAP).

## STAP Comments

Comments	Response
<p>1. STAP welcomes this project, which is a helpful combination of technical assistance and close involvement of local stakeholders towards sustainable management of selected MPAs. Significant benefits will be obtained through co-working with the several related ongoing projects in the region, and given the dispersed islands geography, knowledge sharing and lesson learning will be critically important outcomes to emphasize. Although supportive of the project, STAP advises that there are a number of project design improvements that should be addressed within the full project brief. Further details follow.</p>	<p>See responses below:</p>
<p>2. STAP notes that the project combines a biodiversity and climate mitigation focus, includes climate vulnerability and adaptation concerns, takes an Integrated Natural Resource Management approach, and aims to encourage the equivalent of Marine Spatial Planning to integrate the interests and needs of the MPAs included. A great deal of training and knowledge generation regarding these actions are major outputs. In STAP's opinion the knowledge management aspects of the project are presently too vaguely specified in the PIF regarding sustaining and sharing the knowledge and lessons likely to emerge, within the Bahamas and across the region. A more specific framework regarding KM that explicitly addresses needs, connections with other projects and the KM relationship to the strategy for replication and upscaling would be greatly appreciated at CEO endorsement stage.</p>	<p>The knowledge management framework has been better articulated across all the components. In Component 1, the spatially-based decision support system (SDSS) to be developed will be the first attempt in the country to consolidate knowledge on biodiversity and ecosystems services within the wider planning framework and is supported by capacity building across a wide user base. The concept and KM management approach has been detailed in the Technical Report on the SDSS in Annex B1. Refer to Output 1.1.1. narrative in the Prodoc.</p> <p>In Component 2, on enhancement of effective protected area management, there is now detail on the proposed monitoring and conservation management activities (Table 11 of the Prodoc). The assessment data will be fed back into the SDSS to be established under Copmponent1 through a systematic process that will be facilitated through the project management arrangements; this will be mainstreamed within management protocols of the BEST Commission and the partner agencies. Refer to Output 2.3.1 narrative in the Prodoc.</p>



<p>3. While improving the management of MPAs, increasing their protection from current external pressures and restoring already degraded components and areas are the main objectives of this project, it will be crucial to consider the vulnerability of MPAs to increasingly emerging impacts of climate change to make the investments robust to climate change, as mentioned among the risks and in the UNFCCC part of the Linkages section. The full range of vulnerability reduction and adaptation options will need to be considered (including possibly painful retreats), especially in impact domains where the causes are fully external such as sea level rise with the associated salt water intrusion and increased vulnerability to weather extremes.</p>	<p>The vulnerability of the country to climate change-related extreme events forms the backdrop against which this project is developed and as such the interventions proposed will contribute to enhancing the country's resilience to climate change. Under Component 1 the project will contribute to enhancing ecosystem resilience in the context of climate change at the wider national level. This will be through strengthened decision support through the application of the SDSS knowledge management tool that will incorporate ecosystems assessment and MPA management considerations so as to better orient spatial planning and development decisions toward lessening risks posed to ecosystems from human pressures and in turn climate pressures.</p> <p>The MPA infrastructural investments proposed under Output 2.1.3. will be potentially the most vulnerable to natural disasters, notably hurricanes. It should be noted that the country already has building codes/standards (Bahamas Building Code regulations) and other protocols for loss mitigation that will be applied to the MPA investments under the scope of this project. The renewable energy pilots (Output 2.4.1) are to be built with appropriate safeguards to withstand storm damage (refer to Annex D). The on-site interventions at the Bonefish Pond in particular, will be geared at ecosystem restoration to enhance resilience to climate change impacts.</p> <p>In the event of a major disaster occurring during the course of the project implementation, depending on assessments (under the co-financing commitments by partners), adaptive management measures will be taken in consultation with the national partners and the implementing agency to ensure that core outcomes are realized. Refer to Table 12: Risks and Mitigation Strategy of the Prodoc.</p>
<p>4. Concerning mitigation, the carbon calculation in Annex 2 (taken verbatim from www.hunker.com) is far too simplistic. What matters is not fuel consumption but the amount of electricity in kWh produced by the two technologies and the associated total emissions. The intermittency of solar generation (especially in the wet=cloudy period of the year) and the associated need for back-up generation (probably diesel) or electricity storage is fully ignored. On a life cycle basis, current PV technologies are certainly low (but not zero) emitters of CO<sub>2</sub>, while current storage technologies are rather CO<sub>2</sub> intensive. At a minimum, a rough cost comparison is needed to estimate the relative costs of the two technologies to supply the required amount of electricity at the required level of reliability. Moreover, renewable power technologies are also vulnerable to extreme weather events (see for example articles in Climatic Change Vol 121, No.1) but this aspect is totally ignored in the Threats section (page 8). These deficiencies should be ameliorated.</p>	<p>Further refinements to the carbon calculations will be undertaken during project inception.</p> <p>Annex D 'Renewable Energy &amp; Energy Efficiency Report' contains a comparative analysis of the energy options that could be considered. The report presents an initial screening of technologies to rule out potential risks to the management and preservation of the sites. The following technologies/strategies were assessed; solar, wind, ocean and bio energy, whereby solar was identified with the desired option. The report further specifies energy management strategies will also need to be implemented in order to achieve the desired energy efficiencies. Cost summaries for the proposed installed PV systems and energy conservation measures are presented that forms the basis of the proposal presented in the project.</p> <p>In respect to vulnerabilities to extreme events, this is addressed within the proposal within the specifications outlined in the Annex D report. This provides reference to experiences with the passage of Hurricane Matthew in 2016 and durability of systems that were installed in compliance to with the regulations from the Grand Bahamas Port Authority. These installation protocols/standards will be taken up in the project.</p>

<p>5. Some clarifications about the sub-components of Component 3 would be welcomed, including why the proposed outputs (3.1.1 and 3.1.2) related to invasive alien species and agrochemicals do not appear to be disaggregated in the outcomes statement. What measures are proposed to track 'reduced impacts' (of IAS), and 'reduced use' of agrochemicals - why not impacts also? The proposed indicator for outcome 3.1 really needs to be made specific regarding the changed state of the ecosystem, for example, in terms of species recovery and water quality within the MPAs, beyond the indicator proposed to track 'appreciation', which requires unpacking more clearly.</p>	<p>The proposal now provides further detail on the sub-components of Component 3 under Outputs 3.1.1 and 3.1.2; refer to these sections in the Prodoc. The metrics to track the reduced impacts of IAS removal and agrochemical management are (i) area of land (ha) in and adjacent to Bonefish Pond NP and Lucayan NP restored with engagement of local communities and (ii) number of hectares under good agriculture practices (GAP) treatment in Andros and New Providence. The PPG review process had some challenges coming up with metrics for the state of ecosystem quality (species recovery) and water quality. This is to be further evaluated during project inception.</p>
<p>6. Also important is the need (perhaps in the proposed 'adoption pilots') to extract from this Component 3 work the necessary, robust and practical field-based indicators to assist the local stakeholders to decide for themselves what is the threshold regarding ecological stress to trigger action to reduce pressures and ideally reverse degradation of the areas invested in. Please address the above points in the final project brief.</p>	<p>The approach to the "adoption schemes" within pilot communities is better defined under Output 3.1.3 in the Prodoc. These locations will be Andros West Side and Bonefish Pond National Parks. While there is a specific indicator related to that component output; the number of landscape adoption schemes managed by local communities, it should be noted that the indicators under the other outputs in Component 3 will allow for field-based assessment of progress – see above.</p>
<p>7. Concerning the proposals for mangrove restoration across 60ha (sub-component 3.1.1); this is a welcome development and replication if successful would be an excellent outcome. The test of the feasibility of this will be careful measurement of the effort and costs involved, particularly the major (and costly) intervention proposed of shoreline grading and substrate change, therefore efforts to develop 'costs coefficients', are highly necessary, and fully supported by STAP. To this end, is there data from the equivalent trials of mangrove restoration underway within the Pine Islands project (GEF ID 4847), which aims to restore 50ha within Andros Davis Creek, Grand Bahamas? From a technical perspective, STAP advises that the species chosen for planting should be declared and preferably be selected from local ecotypes. If possible, sediment transport studies should be instigated to check whether investing in substrate improvement is worthwhile, given the risk of tidal (and storm) displacement. Please review these comments and respond within the project brief, including adjusting planned work as necessary in close coordination with the Pine Islands project.</p>	<p>The BEST Commission, as the executing partner for the Pine Islands Project will be drawing on the efforts in mangrove restoration underway within that project to implement within this project. This consideration is reflected within Output 3.1.1 in the Prodoc. Indeed the species chosen for planting will be selected from local ecotypes. The recommendation for the conduct of sediment transport studies will be considered during project inception to determine the feasibility in the context of resource availability and partner engagement.</p>

8. The section on Gender Equality and Women's Empowerment opens with the statement, "The project will ensure gender equality." This is clearly overreach: the specific measures to ensure gender inclusiveness in project design and execution, gender-disaggregated measurement of participation, and gender equity in outcomes are welcome but should be summarized as such.	The project now makes more specific references to gender equality and empowerment. Output 2.1.1. considers gender equity in protected areas management, specifically in terms of delivering balanced composition of the management boards that the project will support in formulation. Under section 3.7.2 in the Prodoc 'Incremental reasoning', gender considerations are further elaborated. Tools such as the Biodiversity Barometer survey will be applied that will provide insights on gender equity over the project duration.

#### GEF Council Comments

Comments	Response
<b>Germany's Comments</b> <i>Germany approves this project in the work program but asks that the following comments are taken into account:</i> <u>Suggestions for improvements to be made during the drafting of the final project proposal:</u> · All comments made by the secretariat and the STAP in the PIF Document are answered to full satisfaction. The focus on ecospecific mangrove restoration for combining conservation of biodiversity and climate mitigation efforts is highly welcomed.	Refer to above; noted.

### ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS.

#### A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF:			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF/CBIT Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To Date</i>	<i>Amount Committed</i>
Personnel - Contract PPG consultants	132,000	59,953.60	72,046.40
Meetings – Committee meetings, PPG Inception and Validation Workshops	50,648	5,280.52	45,367.48
UNEP Agency Fee	17,352	17,352	0

Total	200,000	82,586.12	117,413.88
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PPG consultants were responsible for and completed the following tasks:

- Obtained co-financing commitment letters
- Completion of baseline studies
- Design of project activities
- Stakeholder consultations
- GEF CEO endorsement request
- Completion of ProDoc
- Completion of 16 Appendices
- Revisions to ProDoc, CEO ER and all appendices as required
- Submission of required documents to UNEP PRC

#### ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

**Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)**

N/A

#### ANNEX E: GEF 7 Core Indicator Worksheet

Use this Worksheet to compute those indicator values as required in Part I, Table G to the extent applicable to your proposed project. Progress in programming against these targets for the program will be aggregated and reported at any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Core Indicator 1	Terrestrial protected areas created or under improved management for conservation and sustainable use				(Hectares)
		Hectares (1.1+1.2)			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE
Indicator 1.1	Terrestrial protected areas newly created				
Name of Protected Area	WDPA ID	IUCN category	Hectares		
			Expected	Achieved	

			PIF stage	Endorsement	MTR	TE
		Sum				
Indicator 1.2	Terrestrial protected areas under improved management effectiveness					
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score		
				Baseline	Achieved	
				Endorsement	MTR	TE
		Sum				
Core Indicator 2	Marine protected areas created or under improved management for conservation and sustainable use					(Hectares)
		Hectares (2.1+2.2)				
		Expected			Achieved	
		PIF stage	Endorsement	MTR	TE	
		723,631	688,046			
Indicator 2.1	Marine protected areas newly created					
Name of Protected Area	WDPA ID	IUCN category	Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		Sum				
Indicator 2.2	Marine protected areas under improved management effectiveness					
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score (Scale 1-3)		
				Baseline	Achieved	
				PIF stage	Endorsement	MTR TE
Andros West Side National Park	555592585	VI	607,028	n/a	56	
Exuma Cays Land and Sea Park	2228	II	70,494	n/a	66	
Lucayan National Park	11841	III	784	n/a	55	
Moriah Harbour Cay National Park	315003	VI	9,240	n/a	29	

Bonefish Pond National Park	n/a	VI	500	n/a	40		
		Sum	688,046				
Core Indicator 3	Area of land restored						(Hectares)
		Hectares (3.1+3.2+3.3+3.4)					
		Expected			Achieved		
		PIF stage	Endorsement		MTR	TE	
	Bonefish Pond NP and Lucayan NP with engagement of local communities	100	100				
Indicator 3.1	Area of degraded agricultural land restored						
			Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
		Bonefish Pond National Park		10			
		Lucayan National Park		90			
Indicator 3.2	Area of forest and forest land restored						
			Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
Indicator 3.3	Area of natural grass and shrublands restored						
			Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
Indicator 3.4	Area of wetlands (including estuaries, mangroves) restored						
			Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
Core Indicator 4	Area of landscapes under improved practices (hectares; excluding protected areas)						(Hectares)

		Hectares (4.1+4.2+4.3+4.4)			
		Expected		Expected	
		PIF stage	Endorsement	MTR	TE
	Farmlands in vicinity of Bone Fish NP New Providence and Andros West Side NP, Andros	Not specified	100		
Indicator 4.1	Area of landscapes under improved management to benefit biodiversity				
		Hectares			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE
Indicator 4.2	Area of landscapes that meet national or international third-party certification that incorporates biodiversity considerations				
Third party certification(s):		Hectares			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE
Indicator 4.3	Area of landscapes under sustainable land management in production systems				
		Hectares			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE
			100		
Indicator 4.4	Area of High Conservation Value Forest (HCVF) loss avoided				
		Hectares			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE
Core Indicator 5	Area of marine habitat under improved practices to benefit biodiversity				(Hectares)
Indicator 5.1	Number of fisheries that meet national or international third-party certification that incorporates biodiversity considerations				
Third party certification(s):		Number			
		Expected		Achieved	

			PIF stage	Endorsement	MTR	TE
Indicator 5.2	Number of large marine ecosystems (LMEs) with reduced pollution and hypoxial					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 6	Greenhouse gas emission mitigated					(Tons)
		Tons (6.1+6.2)				
		Entered			Entered	
		PIF stage	Endorsement	MTR	TE	
	Expected tCO2eq (direct)	2,105,539 tCO2eq	1,052,769.6 tCO2eq			
	Expected CO2e (indirect)					
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
			Tons			
			Entered		Entered	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated Year					
Indicator 6.2	Emissions avoided					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)	2,105,539	1,052,769.6			
	Expected CO2e (indirect)					
	Anticipated Year	2034 (15 years)	2034 (15 years)			
Indicator 6.3	Energy saved					
			MJ			
			Expected		Achieved	



			PIF stage	Endorsement	MTR	TE
Indicator 6.4	Increase in installed renewable energy capacity per technology					
		Technology	Capacity (MW)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
<b>Core Indicator 7</b>	<b>Number of shared water ecosystems (fresh or marine) under new or improved cooperative management</b>					<b>(Number)</b>
Indicator 7.1	Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.2	Level of Regional Legal Agreements and Regional Management Institutions to support its implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.3	Level of National/Local reforms and active participation of Inter-Ministerial Committees					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.4	Level of engagement in IWLEARN through participation and delivery of key products					
		Shared water ecosystem	Rating (scale 1-4)			
			Rating		Rating	
			PIF stage	Endorsement	MTR	TE
<b>Core Indicator 8</b>	<b>Globally over-exploited fisheries Moved to more sustainable levels</b>					<b>(Tons)</b>
			Metric Tons			
			PIF stage	Endorsement	MTR	TE

<b>Core Indicator 9</b>	<b>Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products</b>					<b>(Tons)</b>
		Metric Tons (9.1+9.2+9.3)				
		Expected		Achieved		
		PIF stage	PIF stage	MTR	TE	
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) and POPs containing materials and products removed or disposed					
POPs type		Metric Tons				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 9.2	Quantity of mercury reduced					
		Metric Tons				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 9.3	Number of countries with legislation and policy implemented to control chemicals and waste					
		Number of Countries				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 9.4	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					
	Technology	Number				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
<b>Core Indicator 10</b>	<b>Reduction, avoidance of emissions of POPs to air from point and non-point sources</b>					<b>(Grams)</b>
Indicator 10.1	Number of countries with legislation and policy implemented to control emissions of POPs to air					
		Number of Countries				
		Expected		Achieved		

			PIF stage	Endorsement	MTR	TE
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.3	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment					
					Number Achieved	
					MTR	TE
				Female	27	53
				Male	26	52
				Total	53	105

#### ANNEX: Project Taxonomy Worksheet

Use this Worksheet to list down the taxonomic information required under Part1 by ticking the most relevant keywords/topics//themes that best describes the project

Level 1	Level 2	Level 3	Level 4
Influencing models			
	Transform policy and regulatory environments		
	Strengthen institutional capacity and decision-making		
	Convene multi-stakeholder alliances		

	<b>Demonstrate innovative approaches</b>		
	<b>Deploy innovative financial instruments</b>		
<b>Stakeholders</b>			
	<b>Indigenous Peoples</b>		
	<b>Private Sector</b>		
		Capital providers	
		Financial intermediaries and market facilitators	
		Large corporations	
		SMEs	
		Individuals/Entrepreneurs	
		Non-Grant Pilot	
		Project Reflow	
	<b>Beneficiaries</b>		
	<b>Local Communities</b>		
	<b>Civil Society</b>		
		Community Based Organization	
		Non-Governmental Organization	
		Academia	
		Trade Unions and Workers Unions	
	<b>Type of Engagement</b>		
		Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	<b>Communications</b>		
		Awareness Raising	
		Education	
		Public Campaigns	
		Behavior Change	

<b>Capacity, Knowledge and Research</b>			
	<b>Enabling Activities</b>		
	<b>Capacity Development</b>		
	<b>Knowledge Generation and Exchange</b>		
	<b>Targeted Research</b>		
	<b>Learning</b>		
		Theory of Change	
		Adaptive Management	
		Indicators to Measure Change	
	<b>Innovation</b>		
	<b>Knowledge and Learning</b>		
		Knowledge Management	
		Innovation	
		Capacity Development	
		Learning	
	<b>Stakeholder Engagement Plan</b>		
<b>Gender Equality</b>			
	<b>Gender Mainstreaming</b>		
		Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	<b>Gender results areas</b>		
		Access and control over natural resources	
		Participation and leadership	
		Access to benefits and services	
		Capacity development	
		Awareness raising	

		Knowledge generation	
<b>Focal Areas/Theme</b>			
	<b>Integrated Programs</b>		
		Commodity Supply Chains ([1]Good Growth Partnership)	
			Sustainable Commodities Production
			Deforestation-free Sourcing
			Financial Screening Tools
			High Conservation Value Forests
			High Carbon Stocks Forests
			Soybean Supply Chain
			Oil Palm Supply Chain
			Beef Supply Chain
			Smallholder Farmers
			Adaptive Management
		Food Security in Sub-Sahara Africa	
			Resilience (climate and shocks)
			Sustainable Production Systems
			Agroecosystems
			Land and Soil Health
			Diversified Farming
			Integrated Land and Water Management
			Smallholder Farming
			Small and Medium Enterprises
			Crop Genetic Diversity
			Food Value Chains
			Gender Dimensions
			Multi-stakeholder Platforms
		Food Systems, Land Use and Restoration	
			Sustainable Food Systems

			Landscape Restoration
			Sustainable Commodity Production
			Comprehensive Land Use Planning
			Integrated Landscapes
			Food Value Chains
			Deforestation-free Sourcing
			Smallholder Farmers
		Sustainable Cities	
			Integrated urban planning
			Urban sustainability framework
			Transport and Mobility
			Buildings
			Municipal waste management
			Green space
			Urban Biodiversity
			Urban Food Systems
			Energy efficiency
			Municipal Financing
			Global Platform for Sustainable Cities
			Urban Resilience
	<b>Biodiversity</b>		
		Protected Areas and Landscapes	
			Terrestrial Protected Areas
			Coastal and Marine Protected Areas
			Productive Landscapes
			Productive Seascapes
			Community Based Natural Resource Management
		Mainstreaming	
			Extractive Industries (oil, gas, mining)

			Forestry (Including HCVF and REDD+)
			Tourism
			Agriculture & agrobiodiversity
			Fisheries
			Infrastructure
			Certification (National Standards)
			Certification (International Standards)
		Species	
			Illegal Wildlife Trade
			Threatened Species
			Wildlife for Sustainable Development
			Crop Wild Relatives
			Plant Genetic Resources
			Animal Genetic Resources
			Livestock Wild Relatives
			Invasive Alien Species (IAS)
		Biomes	
			Mangroves
			Coral Reefs
			Sea Grasses
			Wetlands
			Rivers
			Lakes
			Tropical Rain Forests
			Tropical Dry Forests
			Temperate Forests
			Grasslands
			Paramo
			Desert
		Financial and Accounting	



			Payment for Ecosystem Services
			Natural Capital Assessment and Accounting
			Conservation Trust Funds
			Conservation Finance
		Supplementary Protocol to the CBD	
			Biosafety
			Access to Genetic Resources Benefit Sharing
	<b>Forests</b>		
		Forest and Landscape Restoration	
			REDD/REDD+
		Forest	
			Amazon
			Congo
			Drylands
	<b>Land Degradation</b>		
		Sustainable Land Management	
			Restoration and Rehabilitation of Degraded Lands
			Ecosystem Approach
			Integrated and Cross-sectoral approach
			Community-Based NRM
			Sustainable Livelihoods
			Income Generating Activities
			Sustainable Agriculture
			Sustainable Pasture Management
			Sustainable Forest/Woodland Management
			Improved Soil and Water Management Techniques
			Sustainable Fire Management

			Drought Mitigation/Early Warning
		Land Degradation Neutrality	
			Land Productivity
			Land Cover and Land cover change
			Carbon stocks above or below ground
		Food Security	
	<b>International Waters</b>		
		Ship	
		Coastal	
		Freshwater	
			Aquifer
			River Basin
			Lake Basin
		Learning	
		Fisheries	
		Persistent toxic substances	
		SIDS : Small Island Dev States	
		Targeted Research	
		Pollution	
			Persistent toxic substances
			Plastics
			Nutrient pollution from all sectors except wastewater
			Nutrient pollution from Wastewater
		Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		Strategic Action Plan Implementation	
		Areas Beyond National Jurisdiction	
		Large Marine Ecosystems	
		Private Sector	

		Aquaculture	
		Marine Protected Area	
		Biomes	
			Mangrove
			Coral Reefs
			Seagrasses
			Polar Ecosystems
			Constructed Wetlands
	<b>Chemicals and Waste</b>		
		Mercury	
		Artisanal and Scale Gold Mining	
		Coal Fired Power Plants	
		Coal Fired Industrial Boilers	
		Cement	
		Non-Ferrous Metals Production	
		Ozone	
		Persistent Organic Pollutants	
		Unintentional Persistent Organic Pollutants	
		Sound Management of chemicals and Waste	
		Waste Management	
			Hazardous Waste Management
			Industrial Waste
			e-Waste
		Emissions	
		Disposal	
		New Persistent Organic Pollutants	
		Polychlorinated Biphenyls	
		Plastics	
		Eco-Efficiency	
		Pesticides	

		DDT - Vector Management	
		DDT - Other	
		Industrial Emissions	
		Open Burning	
		Best Available Technology / Best Environmental Practices	
		Green Chemistry	
	<b>Climate Change</b>		
		<b>Climate Change Adaptation</b>	
			Climate Finance
			Least Developed Countries
			Small Island Developing States
			Disaster Risk Management
			Sea-level rise
			Climate Resilience
			Climate information
			Ecosystem-based Adaptation
			Adaptation Tech Transfer
			National Adaptation Programme of Action
			National Adaptation Plan
			Mainstreaming Adaptation
			Private Sector
			Innovation
			Complementarity
			Community-based Adaptation
			Livelihoods
		<b>Climate Change Mitigation</b>	
			Agriculture, Forestry, and other Land Use
			Energy Efficiency
			Sustainable Urban Systems and Transport

			Technology Transfer
			Renewable Energy
			Financing
			Enabling Activities
		<b>Technology Transfer</b>	
			Poznan Strategic Programme on Technology Transfer
			Climate Technology Centre & Network (CTCN)
			Endogenous technology
			Technology Needs Assessment
			Adaptation Tech Transfer
		<b>United Nations Framework on Climate Change</b>	
			Nationally Determined Contribution
		<b>Climate Finance (Rio Markers)</b>	Paris Agreement Sustainable Development Goals  Climate Change Mitigation 1 Climate Change Mitigation 2 Climate Change Adaptation 1 Climate Change Adaptation 2



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