# PROJECT IDENTIFICATION FORM (PIF) [1]

**PROJECT TYPE: Full-sized Project**
**TYPE OF TRUST FUND:GEF Trust Fund**

## PART I: PROJECT IDENTIFICATION

| | | | |
|---|---|---|---|
| Project Title: | Pine Islands - Forest/Mangrove Innovation and Integration (Grand Bahama, New Providence, Abaco and Andros) | | |
| Country(ies): | The Bahamas | GEF Project ID:[2] | 4847 |
| GEF Agency(ies): | UNEP (select) (select) | GEF Agency Project ID: | 839 |
| Other Executing Partner(s): | BEST, Department of Forestry, Department of Physical Planning, Department of Lands and Surveys, Bahamas National GIS (BNGIS), Bahamas National Trust (BNT) | Submission Date: | 2012-02-18 |
| GEF Focal Area (s): | Multi-focal Areas | Project Duration (Months) | 48 |
| Name of parent program (if applicable):<br>➢ For SFM/REDD+ ☒ | SFM | Agency Fee ($): | 271,075 |

### A. FOCAL AREA STRATEGY FRAMEWORK[3]:

| Focal Area Objectives | Expected FA Outcomes | Expected FA Outputs | Trust Fund | Indicative Grant Amount ($) | Indicative Co-financing ($) |
|---|---|---|---|---|---|
| (select) SFM/REDD-1 | Outcome 1.1 - Enhanced enabling environment within the forest sector and across sectors | Effectiveness of policies that integrate SFM principles | GEFTF | 100,000 | 500,000 |
| (select) SFM/REDD-1 | Outcome 1.2 - Good management practices applied in existing forests | 15% of Conservation Forests (191,826 hecatares), Forest Reserves (128,865 hectares) under sustainable management. | GEFTF | 466,688 | 300,000 |
| (select) SFM/REDD-1 | Outcome 1.3 - Good management practices adopted by relevant economic actors | Enhanced habitat and productive services in 15% Conservation Forests (191,826 hecatares), Forest Reserves (128,865 hectares), | GEFTF | 100,000 | 300,000 |
| (select) LD-3 | Outcome 3.2 - Integrated landscape management adopted by communities. | Output 3.1 Integrated land management plans developed and implemented<br>Output 3.2 INRM tools and methodologies developed and tested<br>Output 3.3 Appropriate actions to diversify the financial resource base<br>Output 3.4 Information on INRM technologies and good practice guidelines disseminated | GEFTF | 1,000,032 | 2,000,000 |
| (select) BD-1 | Outcome 1.1 - Improved management effectiveness of existing and new protected areas | Output 1 - New protected areas and coverage of unprotected ecosystems - 15% of Conservation Forests (191,826 | GEFTF | 800,032 | 1,400,000 |

[1] It is very important to consult the PIF preparation guidelines when completing this template.
[2] Project ID number will be assigned by GEFSEC.
[3] Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

| | | | | | |
|---|---|---|---|---|---|
| | | hecatares), Forest Reserves (128,865 hectares) under sustainable management. | | | |
| (select) BD-2 | Outcome 2.1 - Increase in sustainably manged seascapes that integrate biodiversity conservation | Output 2 - Three (3) national and sub-national land use plans incorporate biodiversity and ecosystem services valuation (Andros, Abaco, Grand Bahamas) | GEFTF | 200,000 | 735,000 |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | Others | | (select) | | |
| | | Sub-Total | | 2,666,752 | 5,235,000 |
| | | Project Management Cost[4] | (select) | **186,673** | 365,000 |
| | | **Total Project Cost** | | 2,853,425 | 5,600,000 |

## B. PROJECT FRAMEWORK

**Project Objective: Inegrate Biodiversity Considerations & Ecosystem Services into Forest Management and Land Use Planning (4 Pine Islands: Grand Bahamas, New Providence, Abaco and Andros)**

| Project Component | Grant Type | Expected Outcomes | Expected Outputs | Trust Fund | Indicative Grant Amount ($) | Indicative Cofinancing ($) |
|---|---|---|---|---|---|---|
| 1. Institutional systemic support & associated capacity building and public education, and community awareness. | TA | Enhanced enabling environment in support of Sustainable Land Management (SLM) and Sustainable Forest Management (SFM) with integration of Biodiversity into land use planning<br><br>Increased targeted public awareness of the importance and benefits of sustainably managing forest & mangrove biodiversity, ecosystems services and sustainable land management | 1. Assessment and monitoring system (GIS); database of forestry lands with biodiversity overlay, inc mangroves. [Identification of forest and mangrove areas prioritized for rehabilitation/ protection]<br><br>2. Intra-agency system established and capacity built (nat'l, local gov't staff & CSOs) to enable trade off analyses for sustainable land management planning at the landscape levels in 3 sub-national plans<br><br>3. Tailored tools, methodologies, and training for integration of biodiversity into forest management/ land use management (eg. habitat identification, sustainable harvesting technologies, forest fire management).<br><br>4. Awareness building | GEFTF | 600,000 | 1,300,000 |

[4] GEF will finance management cost that is solely linked to GEF financing of the project.

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | modules -- benefits of sustainable land use and forest management. Targets: decision makers, private sector, forest communities | | | |
| 2. Expansion and improved management of forest/mangrove sector | TA | Improved management effectiveness of existing and new forest reserves | 1. Selection criteria established to facilitate decision making to gazette forest lands of high biodiversity value & ecosystem services as Conservation Forest<br><br>2. Innovate community co-management arrangements, develop and implement 2 management plans for newly gazetted forest areas - 15% of target = 52,000 hecares (to integrate biodiversity concerns, and adopt best practices in sustainable land use, forestry and agro-forestry (estimate up to 381,151 tCO2 eq avoided).<br><br>3. Re-establishment and rehabilitation of Little Abaco Mangrove Ecosystem (50 ha est.), potential carbon stock increase of up to 51,150 tCO2 eq. | GEFTF | 970,000 | 2,060,000 |
| 3.Models for SFM Sustainable livelihoods, agriculture, forestry & sustainable land management in coastal communities of the Pine Islands, and additional Family Islands in Central and SE Bahamas | TA | Effective provisioning of forest ecosystem services<br><br>Strengthened livelihoods people dependent on use of forest resources - increased use of sustainable land, agro-forestry and forestry management practices among coastal communities. | 1. Piloting alternative livelihoods and promotion of good management practices in SFM areas with REDD benefits, 2 of the 4 following:<br><br>Model 1 - Sustainable forest production - pine forests<br><br>Model 2 - non-timber forest products: Cascarilla bark and sustainable thatch<br><br>Model 3 - agro-forestry - coppice forests<br><br>Model 4 - local non timber forest products - Nassau Straw Market | GEFTF | 1,096,752 | 1,875,000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | 2. Inter-island replication and knowledge sharing initiative | | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| Sub-Total | | | | | 2,666,752 | 5,235,000 |
| Project Management Cost[5] | | | | GEFTF | 186,673 | 365,000 |
| **Total Project Costs** | | | | | 2,853,425 | 5,600,000 |

## C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

| Sources of Cofinancing | Name of Cofinancier | Type of Cofinancing | Amount ($) |
|---|---|---|---|
| National Government | Government of The Bahamas (BEST), Dept. of Physical Planning, Dept of Forestry, Bahamas National GIS Centre, and Dept. of Lands & Surveys), BAIC *** | In-kind | 2,350,000 |
| National Government | Government of The Bahamas<br>Dept. of Forestry ($460,000)<br>Dept of Physical Planning ($20,000)<br>BEST Commission ($20,000)<br>Bahamas National Trust ($20,000)<br>BNGIS Centre ($10,000)<br>BAIC ($40,000) | Grant | 970,000 |
| GEF Agency | UNEP (Caribbean Environment Programme (CEP), Special Protected Areas Protocol Regional Activity Center (SPAW-RAC); Division of Environmental Policy Implementation (DEPI); UNEP-World Conservation Monitoring Center (WCMC) | In-kind | 400,000 |
| GEF Agency | UNEP-DEWA | Grant | 200,000 |
| Private Sector | Banking Sector, Lindar Industries, Grand Bahama Port Authority , Bahamas Straw Market Authority | In-kind | 700,000 |
| Private Sector | Banking Sector, Lindar Industries, Grand Bahama Port Authority , Bahamas Straw Market Authority | Grant | 500,000 |
| Other Multilateral Agency (ies) | IICA (pilot) | Grant | 250,000 |
| CSO | Birldlife International. | In-kind | 200,000 |
| CSO | Nature's Hope, San Salvador ltd. AnCAT, College of the Bahamas, Friends of the Environment | In-kind | 30,000 |
| (select) | | (select) | |
| **Total Cofinancing** | | | 5,600,000 |

[5] Same as footnote #3.

## D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

| GEF Agency | Type of Trust Fund | Focal Area | Country Name/Global | Grant Amount (a) | Agency Fee (b)[2] | Total c=a+b |
|---|---|---|---|---|---|---|
| UNEP | GEF TF | Land Degradation | Bahamas | 1,070,034 | 101,653 | 1,171,687 |
| UNEP | GEF TF | Biodiversity | Bahamas | 1,070,034 | 101,653 | 1,171,687 |
| UNEP | GEF TF | Multi-focal Areas | Global | 713,357 | 67,769 | 781,126 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| **Total Grant Resources** | | | | 2,853,425 | 271,075 | 3,124,500 |

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

[2] Please indicate fees related to this project.

**E. PROJECT PREPARATION GRANT (PPG)**
Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant

| | Amount Requested ($) | Agency Fee for PPG ($) |
|---|---|---|
| • No PPG required<br>• (up to) $50k for projects up to and including $1 million<br>• (up to) $100k for projects up to and including $3 million<br>• (up to) $150k for projects up to and including $6 million<br>• (up to) $200k for projects up to and including $10 million<br>• (up to) $300k for projects above $10 million | 100,000 | 9,500 |

**PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF**

| GEF Agency | Type of Trust Fund | Focal area | Country Name/Global | (in $) | | |
|---|---|---|---|---|---|---|
| | | | | PPG (a) | Agency Fee (b) | Total c = a + b |
| UNEP | GEF TF | Land Degradation | Bahamas | 37,501 | 3,563 | 41,064 |
| UNEP | GEF TF | Biodiversity | Bahamas | 37,499 | 3,562 | 41,061 |
| UNEP | GEF TF | Multi-focal Areas | Bahamas | 25,000 | 2,375 | 27,375 |
| **Total PPG Amount** | | | | **100,000** | **9,500** | **109,500** |

## PART II: PROJECT JUSTIFICATION

**A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

**A.1.1 the GEF focal area/LDCF/SCCF strategies:**

The project is consistent with the GEF V: Strategy for Sustainable Forest Management and Focal Area Strategies for Land Degradation and Biodiversity. The project, in particular addresses SFM/REDD Objective 1 to reduce pressures on forest resources and generate sustainable flows of forest ecosystem services, through the design of activities which will result in impacts in all 3 outcome areas of this objective. The project is closely aligned with SLM Objective 3, in particular activities designed to produce outcomes strengthening the cross sector enabling environment (3.1) and promoting adoption of integrated landscape management practices by local communities. Lastly, the project will advance Biodiversity Objectives 1 and 2, by extending coverage of protected areas and mainstreaming biodiversity conservation and sustainable into production landscapes of the forest sector.

**A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:**
N/A

**A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:**

The project is consistent with 1999 The Bahamas National Biodiversity Strategy and Action Plan (NBSAP), in that it would adopt a multi-disciplinary approach to the conservation of biodiversity and

ecosystem services, and furthermore contribute to the linkages between ecosystem and human well being.

The June 2011 4th National Biodiversity Report notes the progress made in integrating biodiversity concerns into relevant sector policies through the adoption of The Bahamas Forestry Act of 2010, further noting the importance of forest ecosystems, threats to the well being of forest ecosystems and the need for implementation of the Act.

The First National Report on the Implementation of the United Nations Convention to Combat Desertification (2006) recommends that action be taken to establish land use plans, revamp or develop legislation (done, see next section), and improve data and information sharing and public awareness.

The National Action Program to Combat Land Degradation in The Bahamas calls for mitigation and reversal of the effects of land degradation by adopting measures to effectively preserve and manage the limited land resources of The Bahamas, through the participation and partnership of the various stakeholders. Expected outcomes of the NAP (not exhaustive) include innovation in restoring degraded lands, more efficient land use management, increased awareness of the causes and effects of land degradation, and increased participation by a well informed public.

The 2002 Ecoregional Plan for the Bahamian Archipelago spells out the terrestrial target priorities of coppice (dry evergreen forest); Pineland, Beach Strand (which encompasses bush or coppice) and coastal wetlands (which encompasses coastal community mangrove).

This project has been indicated as the highest of priorities in the recently completed June 2011 National Portfolio Formulation Document (NPFD) for GEF-5 programming in The Bahamas, as acknowledged by the GEF Secretariat.

Most recently, in February 2012, the Cabinet of the Government of The Bahamas gave instructions to the Ministry of Foreign Affairs to deposit the instrument of ratification/ accession for the Protocol concerning Specially Protected Areas and Wildlife (SPAW) to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention) to the UN depositary.

## B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

**Background.** The forest resources of The Bahamas comprise pine forest, coppice forests and mangrove forests, with approximately 80% of forest resources on state land (Crown land). Pine forests are considered the most productive of the three forest types, and pine is now a protected species. Coppice (hardwood) forests are found in the central and southern Bahamas.

**Pine Forests**. Most pine forests (*Pinus caribaea*) are self-sustaining secondary growths. They protect the soil and the fresh water lens and provide habitats for many plants and animals--including the Bahama parrot in Abaco. This ecosystem is also known as “pineyards”, pinelands” or “pine barrens”, and they may be “wet barrens” or “dry barrens”. The pine forests of Abaco, Andros and Grand Bahama occupy about 6,185 km2 (2,416 mi2). The unique biodiversity of the pine forests include the ground-nesting Bahamas Parrot, which lives in coppice areas; 30 warblers, of which two are endemic; the Bahamian yellowthroat (*Geothlypis rostrata*) and the pine warbler (*Dendroica pinus*) and the endangered Kirtland’s warbler (*Dendroica kirtlandii*) are winter migrants. The pine forest is also habitat to a rare atala hairstreak butterfly *(eumarus atala).* Forest ecosystems of The Bahamas provide significant ecological benefits such as the protection of soil and freshwater resources and provide a haven for wildlife inclusive of rare and endangered species.

**Coppice.** This comprises the dense, upright and narrow-stemmed, regrowth of mixed hardwood tree species (*Bursera, Metopium* and *Swietenia*). It provides habitats for many orchids and bromeliads--both terrestrial and epiphytic--and for birds, snakes and crabs. Coastal coppice may occasionally flood, and on windward coasts receives salt spray which may lead to sculpting and wind-shaping.

**Mangrove Forests**. These are dominated by one or more species of mangrove (*Avicennia, Laguncularia* and *Rhizophora,)* with other plant species in drier areas. They encourage sedimentation, hold the sediments in place, and help build land. They also provide nursery habitats for many marine animals, including commercial fishery species, and habitat for water fowl and other fauna. Mangrove forests minimize flooding and erosion. They occur mainly in protected locations on leeward coasts, with particular concentration on Great Inagua, the Bight of Acklins (between Crooked Island and Acklins Island), the western shores of Andros and Great Abaco and the northern shore of Grand Bahama. The Bahamas has about 4,286 km2 (1,674 mi2) of mangrove forest and other wetlands.

**Blue Holes.** While not falling strictly in the category of forest types, the land based entrances to these fascinating ecosystems in forested areas make them a high priority for protection under this project. All the main islands of the Bahamas have blue holes, with Andros featuring some 50 in the sea and 178 on land with entrances among the shallow creeks, inland lakes, and the shallow banks of the Bahamas. The carbonate system caves, can be laterally and vertically very extensive. Sixty-nine troglobitic species have been identified from Bahamian caves including 63 crustaceans, 3 sponges, 1 annelid, 1 chaetognath and 1 fish.

**Project Baseline.** The recently enacted 2010 Forestry Act was nearly 50 years in the making, and was provided support by a variety of partners (Water & Sewerage Corporation, Bahamas National Trust, The Nature Conservancy, BEST Commission, Department of Physical Planning, College of The Bahamas, Local Conservationists and Scientist), which are expected to continue their baseline support through the proposed project. The principal objectives of the Act are to: provide a legal framework for the long- term sustainable management of forests and to establish a permanent forest estate subject to scientific management. Three categories of Forest are established: Forest Reserves, Protected Forest and Conservation Forests.

The Forest Department is budgeted from Central Government, has concluded a Memorandum of Understanding with the Bahamas National Trust (BNT) for its Park Wardens to act in the capacity of authorized officers on the family islands; to support the forestry activities on the islands, including hiring additional staff and providing with necessary equipment to allow them to efficiently function in their new capacities as ex officio officers. The initial baseline allocation effort to implement the Bahamas Forestry Act is $140,000, of which The Bahamas National Trust (BNT) is provided $100,000 from this amount annually for activities in indirect support of the Forestry Act. The Forest Department will soon initiate the execution of a forestry pilot with FAO support. A 1986 Inventory for the Pine Forests of the Bahamas is used for planning, but is in need of updating.

A Land Use, Policy and Administration Project (LUPAP) in 2005 was completed in 2008, with funding from the IDB through the Department of Lands and Surveys. The overall goal was to improve the efficiency of land administration and land information in the Bahamas, prepare modern land legislation and policy guidelines for the Government, and thereby contribute to the improved use of land resources in the country. Subsequently, the Planning and Subdivision Act, piloted through the Bahamian Parliament by its Environment Minister, took effect in January 1, 2011.

The Department of Physical Planning is tasked with implementation of the Act, together with the planning process and development control for The Bahamas. Existing funding is limited with respect to data collection and interventions are largely focused on existing developments. Land use planning efforts feature ad hoc consultations with the existing Wetlands Committee and some of the partners previously mentioned, the BEST Commission, and BNT. Planning is largely based on an outdated land resource

surveys dated 1972 and does not feature systematic consideration and integration of ecosystem services, biodiversity and forest management priorities.

In 2010, a planning exercise for New Providence, led by the Forest Department together with Land Use Planning, expended $100,000 resulted in much needed planning featuring existing land use and zoning. The preliminary land use plan for New Providence was produced from an exhaustive review of all available data, as well as consultations with relevant government agencies and major landowners. Based on existing uses, resulting zoning resulted in set aside for heritage sites, forest reserves, and public parks and green spaces. A baseline Land and Sea Use Plan for Andros demonstration site as elaborated by the GEF-IWCAM project was completed in January 2011 and provides a valuable launching point for the sustainable development, management and economic growth recommendations proposed.

In 2012-2013 resources are available to hire two new planners and additional resources will be sought for comprehensive planning approach of select Family Islands. Recurrent annual baseline approved financing of the Department of Physical Planning for Fiscal Period 2011/2012 is estimated at $911,975.00.

The Bahamas National Geographic Information System (BNGIS) Centre was set up initially in 1999. Its core functions, to advance, promote and coordinate the use of geospatial datasets in the Bahamas and to act as a clearing house mechanism of such data. The Centre played an integral role in the LUPAP project particularly under Component II – Land Information Management (and the re-establishment of the BNGIS Centre), with the following sub-components**;** producing initial geographic profiles for three (3) family islands (namely: Inagua, Andros and Abaco island); GIS Training and Awareness; GIS Capacity Building; National GIS Policies (which included drafting legislation produced to establish the Bahamas Spatial Data Infrastructure (BSDI), with the BNGIS as its lead agency and hub, and the production of policies and procedures manual. The LUPAP project funding also provided training in the fundamentals of GIS and set up a parcel information management System (PIMS). While sustainability of the latter effort has been called in to question, there is a baseline to build on this system, overlay forest and ecological data and ensure further advance requisite institutional integration. The BNGIS Centre is in full support of this initiative and its facilities, infrastructure and human resources will be made available to facilitate the project outcomes and outputs.

According to baseline studies, several of which cited above, the lack of a systemic integrated land-use planning and its application (compounded by a lack of appreciation and understanding of the value of the fragile Bahamian environment, related environmental services and biodiversity), is considered to be the dominant driver of deforestation, forest degradation and land degradation. This is particularly evident in the Pine Islands, where expanding settlements, pressures of subdivision development, roadside clearance, some agriculture expansion drive forest loss and degradation. The rate of forest loss is estimated to be 0.5 % per annum -- however is site specifically highly variable with respect to coastal forest/mangrove areas (pressure from development), vicinity to settlements, roads. Wetlands and mangroves are particularly threatened, with no monitoring system in place to track ecosystem changes over time. Government agencies responsible for planning and making integrated decisions regarding land development lack the necessary data and management tools to ensure long-term sustainable development. Decision makers lack basic information on the existence or importance of natural resources, and forest ecosystem services. Overarching barriers include absence of a consultative and integrated governmental process for land use planning, lack of biodiversity and forest related ecosystem services information to inform land use planning; low awareness of the fledgling legal and institutional framework, inability to integrate local communities in the overall sustainable management and limited alternative livelihood options. The need for land use planning and zoning in Pine Islands as a priority is particularly acknowledged by the consultative process.

Passage of the Planning and Subdivision Act and the Forest Act and associated regulations is recent and present a unique opportunity for Bahamians to build on. However, barriers to implement these important pieces of legislation in an environmentally sustainable manner are significant.

Institutional barriers: Institutional capacity is lacking at the level of planning and forestry authorities, the private sector, NGO partners and island communities. Coordination amongst these different entities is informal at best resulting in a large a systemic gap to plan**.** No cohesive arrangement exists between the Forest Department, NGOs and communities to manage forests capital on an informed basis.

Technical barriers: Technical capacity is limited as a result of lack of financial and human resources, few opportunities for technical training and lack of access to scientific data, management tools and methodologies for sustainable forest management, sustainable land management and biodiversity conservation.

Economic / Livelihood barriers: Lack of options for alternative livelihoods in areas surrounding forest reserves and conservation forests is further exacerbated by the downturn in the economy which has severely affected nature based tourism in The Bahamas. Low access to markets for sustainable forest and non timber forest products limits development of cottage industries.

B. 2. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

The project will feature three components to address the barriers, as described above, in an integrated and multi-faceted approach based on incremental reasoning. These include:

**Component 1**. Building on the recent passage of the Land Use Planning Act and the Forestry Act, this component will build institutional systemic support, capacity building and public education, and community awareness for SFM/SLM.

*Building on existing data systems, identify occurrence, densities and state of mangrove distribution to prioritize protection and rehabilitation. Calculate blue carbon using biomass data. Building on remote sensing and existing GIS systems, GEF support will enhance systemic strengthening to generate data to monitor mangrove forest area change, forest degradation, and enhancement, serving the core monitoring needs of component 2.

*Development of an intra-gency (public and private sectors) framework agreement for the operational planning and management of the forest sector. A GEF incrementally supported planning framework will assure integrated sytemic consideration of biodiversity concerns, ecosystem services, and sustainable land use management options at both the planning levels and the public consultative levels for the four Pine Islands and surrounding communities as prioritized by this project.

*Technical capacities of national and local governmental staff, together with community organizations (to co-manage island forest resources) to be strengthened through GEF support access to data, tools and methodologies and opportunities for training in best practices of sustainable forest and land management. Roll out of training modules for targeted user groups (government staff, NGO staff, community stakeholders) will be in classroom settings and on site practical exercises and will draw from regional expertise (Jamaica, Trinidad and Tobago, Dominica Cuba and French West Indies) and tentatively the International Program of the US Forest Service. Forest management technical skills to be strengthened at inclusion of a forestry area of focus into the BSs in Small Island Sustainability (SIS) offered by the College of the Bahamas.

*GEF support to awareness building and outreach activities will build understanding of and support for the conservation and sustainable use of pine, coppice and mangrove ecosystems.

**Component 2.** Improved management effectiveness of existing and new forest and mangrove reserves. This component will prioritize forest planning in accordance with the new Forest Act, with incremental GEF support for set aside and improved management effectiveness of new conservation forest with an emphasis on biodiversity of global significance, and vulnerable mangrove ecosystems. This component will integrate the consultative process to which the Forest Department must adhere to in the development of Forest Management Plans (Part V of the Forestry Regulations 2011). This process comprises consultations with relevant government, agencies, non government agencikes and other relevant groups as well as a public notification and comment system.

*Building on output 1 of Component 1, the GEF component would support the establishment of criteria and selection of priority forests and mangroves for gazzettement under 3 categories of forests. The GEF increment to integrate consideration of biodiversity and ecosystem services values in gazettement prioritization.

*GEF to provide incremental support to the development and implementation of two consultative forest management plans, reflecting different foresty category/forest ecosystem, encompassing a minimum of 15% (52,000 hectares) of forest areas targeted for gazettement under the Forest Act of 2010. Activity would comprise the development of innovative community co-management arrangements (such as the one between the Forest Department and Bahamas National Trust) in Abaco, Andros and Grand Bahama with community organizations such as Friends of the Environment Abaco and The Andros Conservancy and Trust (AnCAT) Bahamas. Forest Management Plans will be developed in accordance with the Forest Act of 2010: integrating best practice, preservation of biotic corridors for biodiversity; perscriptions for fire prevention, capacity and budgetary requirements, proposals for financial sustainability arrangements and delineation of monitoring and enforcement systems at the community management level. Resulting management plans can be used as a template for other sites under same category/designation.

* Pilot restoration of a degraded mangrove ecosystem is proposed as a high visibility SFM management demonstration model. Activities would comprise a) baseline assessment of current status and estimation of loss of carbon and other ecosystem services as a consequence of deforestation or degradation; b) assessment of REDD benefits to be accrued by restoration / rehabilitation; c) planning and implementing restoration of pilot area within mangrove area; d) monitoring programme to monitor change over the course of the project.

The Little Abaco mangrove ecosystem was impacted some 50 years ago by an earthenware dam which cutoff tidal flow and fish migration between the islands. This adversely affected ecosystems, fish and negatively impacted the surrounding mangrove ecosystem. A proposed Bahamas investment of $6.5 million will finance a new bridge to replace this damaging dam will soon be underway. The new bridge is designed to have an opening width of 150', which will restore tidal flows and offer a priority opportunity to enhance the biodiversity benefits of re-connecting two large ecosystems through a pilot demonstration of mangrove restoration within a 500 hectare area. Ecosystem adaptation measures delivered through this activity have the potential for a multiplicity of benefits including increased protection against storm surges, sea level rise and coastal inundation; conservation of fish that live and breed in the mangrove; and increased connectivity of ecosystems. Mangroves contain an average of average 1,023 tonnes of carbon per hectare according to recent studies (Donato et al, 2011- attached). This model will pilot restoration efforts for up to 50 hectares across a potential 500 hectares of mangrove forest, with up to 51,150 tonnes of carbon emissions avoided.

**Component 3.** Replicable models for sustainable forest management and integrated landscape management to enhance income generation for island forest communities , reduce pressure on and enhance biodiversity conservation of pine, coppice and mangrove ecosystems. During preparation,

consideration will also be accorded to preliminary data generated for component 1 and linkages to component 2's prioritized areas for forest management planning. These models will be designed through a consultative process on site, at the community level, consistent with the Forestry Regulations of 2011 and the Planning and Subdivision Bill of 2010. This component will also feature an inter-island knowledge sharing activity to engender replication and innovation in the Pine Islands, and extended Family Islands.

* Two of the following four potential models will be selected to move forward during project preparation -- selection criteria will include: a) potential to prevent the generation of carbon through reduced deforestation or rehabilitation (eg. mangroves); b) potential for measurably improved ecosystem services generated through the intervention; and c) feasibility based on a social and economic analysis.

Model 1 – Integration of BD conservation criteria and consideration of ecosystem conservation services in a sustainable forest production start up in pine forests, public-private partnership (on Abaco) with Lindar Industries and FAO;

Model 2 – Development of sustainably sourced non-timber forest products: cascarilla bark and sustainable thatch in partnership with BAIC;

Model 3 – Promotion of Agro-forestry in coppice systems – site specific buffer zones & biological corridors in partnerhsip with IICA;

Model 4 - Development of market links for certified local non timber forest products in partnership with Nassau Straw Market Authority

Staffing of the Forest Department and the Department of Physical Planning is extremely limited. As such, partnerships are key in delivering on the ground. Models to be delivered at the community level through cooperative partnerships. Each of the models currently under consideration feature "champions" (eg. BAIC, Nassau Straw Market Authority = private sector co-financiers), who would work in partnership with CSOs and NGOs at the community level in defining substantive implementation roles.

* Replication. Inter-island replication and knowledge sharing activities will be promoted at regularly scheduled inter-island venues to highlight the innovation in management arrangements and alternative livelihoods afforded by this project.

**Execution Arrangements.** The project will be led by the Forest Department, and co-executed by the Department of Physical Planning. Oversight of the project will be the responsibility of an expanded **National Implementation Support Partnership (NISP).** An existing Memorandum of Understanding establishes the **NISP** for the purposes of in-country collaboration between the Bahamas Environment, Science, and Technology (BEST) Commission, The Bahamas National Trust (BNT), Department of Marine Resources (DMR) and The Nature Conservancy Northern Caribbean Program (TNC NCP). The NISP serves as a coordinating executing mechanism for several in-country efforts including the ongoing GEF-supported "Building a Sustainable National Marine Protected Area Network – Bahamas. For the purposes of this project, it is suggested to build on this mature, functioning arrangement and add four agencies which are pertinent to the proposed project: Department of Forestry, Department of Physical Planning, Department of Lands and Survey and BNGIS. The resulting **NISP+** will serve as the coordinating execution and oversight mechanism of the Project: Pine Islands - Forest/Mangrove Innovation and Integration (Grand Bahama, New Providence, Abaco and Andros)

An **annual executive session of NISP+** (to include UNEP) will be held to fulfill steering mechanism responsibilities including: oversight of project implementation, monitoring of project progress, strategic and policy guidance and to review and approve annual work plans and budgets.

Once a year, an **"Extraordinary NISP+ Meeting"** would bring together additional project partners from the private sector, local government and civil society organizations of island communities for project information sharing and review purposes.

**Project Management Costs**. A project management budget of 7% of the GEF resources is requested for this project with proportional match from co-financing sources. Execution of the project will be delivered through the work programs of 5 governmental agencies, and several civil society and non governmental organizations. Staffing of these is thinly stretched and technical capacity limited.

The Bahamas, a SIDS, is an archipelago of over 700 islands stretching over 100,000 square miles in the Western Atlantic Ocean. The focus of the project on the geographically ranging four Pine Islands, with additional piloting of alternative livelihoods in the Central and SE islands, which will bring with it challenges in communications, oversight and outreach – more than justifying a serious management and budget which can accommodate adequately budgeted travel over the course of 4 years.

Project management will be defined and further costed out during the project appraisal process in cooperation with partner agencies. Project management arrangements need to be sufficient to to maintain the project activities on course, adapt them as needed, ensure full consultative approach with Pine Island communities, meet cost effectiveness objectives, report on the big picture, drive the project towards success, deliver the global environmental benefits expected by the GEF and complete the project on time.

**Incrementality.** Without GEF interventions, forest management and land use planning would continue to be ad hoc, uninformed and biodiversity concerns and ecosystem services not allocated the priority warranted. GEF intervention will build on a nascent legal framework to integrate appropriate consideration of environmental priorities and sustainable management options. GEF support will permit testing of innovative arrangements for community custodianship of the pine forests islands, where gaps in management and oversight at the national level are most keenly felt.

**Global environmental benefits (GEBs).** The project focus is on conservation and sustainable use of forested areas of high biodiversity significance and (mangrove) ecosystems critical to the adaptive resiliency of island communities. The project will integrate SFM and SLM considerations and the value of ecosystems services ( eg. nutrient and water flow, a precious commodity on island ecosystems) into the land use planning process and build capacity. The gazettement of targeted Conservation Forests (191,826 hectares) and Forest Reserves (128,865 hectares) and Protected Forests (25,537 hectares), together with development and implementation of sustainable forest management plans for a minimum of 15% (est. 52,000 ha) will stem habitat loss and degradation thereby safeguarding habitat for forest plants and animal species of global significance, including migratory species; increase the management effectiveness of forest of high priority conservation value and restoration of high value mangrove ecosystems. Through the development of alternative livelihoods, including agroforestry and non timber forest products, pressure on forest resources will be relieved while providing opportunities for generation of income in remote coastal communities hard hit by the economic downturn and loss of tourism revenues. Adoption of sustainable forest and land management techniques will result in enhanced resilience to climate change, conservation of carbon stocks and reduction of emissions for forest deforestation and degradation. Annual carbon savings by benefit of the project through integration of forest domain into land use planning, improved forest management and avoided deforestation together with mangrove rehabilitation efforts estimate up to 381,151 $tCO_2$ eq avoided and potential carbon stock of up to 51,150 $tCO_2$ eq through targeted pilot rehabilitation of mangrove areas. Please note that the lack of data is one of the significant barriers to be addressed by the proposed project and that the methodologies of the Blue Forests project to be financed by GEF are expected to be a boon in these calculations.

**Costing and Cost Effectiveness.** The limited capacity and resources available to the Departments of Forestry, and that of Physical Planning, necessitates cost effective innovation to manage the forest sector. The community level approach and the maximization of synergies between national and local government

agencies, relevant NGOs, the private sector and island communities will ensure that the most cost effective management solutions and alternatives are put in place and sustainably carried forward. Project components are modestly scaled based on ongoing efforts and absorptive capacity of government agencies, NGOs active in the management of pine, coppice and mangrove ecosystems and the size of Family island communities. Project will avail itself and build on existing tools, methodologies and materials relevant to project objectives through associated partners, further co-opting human resources and training opportunities at the regional and international levels (eg. UNEP-WCMC, French West Indies, US Forest Service).

**B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":**

At least two of the four proposed pilots will be focused on alternative livelihoods that have traditionally been dominated by women. These are the linkages between non timber forest products and the Nassau Straw Market and promulgating the sustainability of the thatching industry. Both the Nassau Straw Market and the suggested non timber products targeted (eg. thatch) are dominated by women. Socio-economic indicators will be developed to measure the impact of improved management of timber resources and ecosystem services, together with increases in income for targeted communities and replication efforts. As part of this effort, disaggregated gendered impacts of increased income generation will be tracked as part of the M & E system. The lessons learned, marketing and innovative successes of the Components 3 will be shared at regularly inter-island venues to en(gender) replication. Inter-island venues are a mainstay of Pine Islands culture and will continue beyond the life of the project. Arrangements to be negotiated under the auspices of the Nassau Straw Market Authority are intended be long term and will have a positive impact on women.

**B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:**

| **RISK** | | **Risk Mitigation Strategy** |
|---|---|---|
| Project support in changing economic and political climate | M | Alternative livelihood pilot and replication module to demonstrate positive economic impact of project. Awareness of decision makers and public to be built through increased access to data and outreach activities |
| Intensified storms due to climate change | M | Mangrove restoration and protection / a positive impact on adaptive resiliency |
| Dry weather patterns increased fires | M | Improved fire management integrated into management plans, will increase sustainability of forest ecosystem services |
| Gazettement of new forest areas under the Forest Act could affect access of surrounding communities | M | Consultative processes and citizen recourse are stipulated in a number of legislative acts including the Land Use Planning Act. Project will ensure adherence with these processes and develop alternative livelihood options to benefit stakeholder communities. Furthermore the project will ensure consistency with GEF Social and Environmental Safeguards and REDD's Social Safeguards: Protecting the rights and interests of Indigenous Peoples and forest-dependent communities in REDD+ |

**B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:**

| Stakeholders | Role |
|---|---|
| Department of Forestry | Lead Agency |
| Department of Physical Planning | Co-Lead Agency (land use planning) |
| Department of Lands and Surveys | Cooperating Agency |
| BEST Commission | Focal Point to UNEP/GEF |
| Bahamas National Trust | MOU-Partnership with MTE-Forestry Unit; |
| Private Sector (BAIC) | Collaborative (lead on pilot projects i.e. thatching straw industry) |
| Friends of the Environment Abaco | Partnership with MTE-Forestry Unit |
| The Andros Conservancy and Trust (AnCAT) | Partnership with MTE-Forestry Unit |
| Island Communities (Pine Islands , Central and SE Islands)<br>Island Administrators, eg. District Council, Town Planning Committee (Acklins Island, Abaco, Andros, Crooked Island, Grand Bahama) | Consultative and collaborative |
| BNGIS Centre | Institutional support in use of GIS facilities, human resources |

Staffing of the Forest Department and the Department of Physical Planning is extremely limited. As such, partnerships with key stakeholders are critical in delivering the project on the ground. Component 2 which focuses on the improved management of forests and mangroves would be delivered through prospective partnerships between the Forest Department and community organizations such as Friends of the Environment Abaco and The Andros Conservancy and Trust (AnCAT) Bahamas." Each of the alternative livelihood models currently under consideration feature "champions" (eg. BAIC, Nassau Straw Market Authority = private sector co-financiers), who would work in partnership with CSOs and NGOs at the community level in both the development of these during the PPG phase and furthermore defining substantive implementation roles. The project cannot be effectively executed without these cooperative partnerships with the private sector, CSOs and NGOs. .

**B.6. Outline the coordination with other related initiatives:**

This project will be carried out in close coordination with the ongoing GEF funded "Building a Sustainable National Marine Protected Area Network – The Bahamas; and the Bahamian component of the GEF funded project "Mitigating the Threats of Invasive Alien Species in the Insular Caribbean (MTIASIC)". These two projects both tackle threats to biodiversity and feature interventions in coastal marine protected areas, including some mangrove areas. These are generating new data, and piloting approaches to conservation and management of natural resources. Practical experience and lessons learned through these efforts will be integrated into the newly proposed project together with exploration of possible synergies and cooperation.

Project executants of the two projects are members of the National Implementation Strategic Partnership (NISP), which as the proposed executing body of this new project will ensure that the space for dialogue and collaboration exists. On the UNEP side, both of the above referenced projects are managed by the same UNEP Task Manager, an additional safeguard to avoid duplication of effort and maximize

coordination efficiencies.

As per proposed executing arrangements, once a year, an **"Extraordinary NISP+ Meeting"** would bring together additional project partners from the private sector, local government and civil society organizations of island communities for project information sharing and review purposes.

## C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

UNEP's comparative advantage derives from its mandate to coordinate UN activities with regard to the environment, including its convening power, its ability to engage with different stakeholders to develop innovative solutions and its capacity to transform these into policy- and implementation-relevant tools. UNEP's comparative advantages in the GEF are aligned with its mandate, functions and Medium Term Strategy and its biennial Programme of Work (2012- 2103). The proposed project is consistent with the Ecosystem management thematic priorities outlined in UNEP's Medium-term Strategy.

This proposed project is in line with UNEP's role in the GEF to catalyze the development of scientific and technical analysis and advancing environmental management in GEF-financed activities. In particular, the project further complements UNEP's aim to promote specific methodologies and tools that could be replicated on a larger scale by other partners.

UNEP's programmatic efforts build capacity of stakeholders to generate scientifically credible information required for integrating an ecosystem service approach into national economic and development frameworks. UNEP's Ecosystem services and economics (ESE) work is geared towards developing a knowledge base and, promoting understanding on how ecosystems and relate to human well-being and development along three main areas: Economic valuation and natural wealth; Payments for ecosystem services (PES) and equity; and institutional approaches for the sustainable use of and access to ecosystem services.

### C.1 Indicate the co-financing amount the GEF agency is bringing to the project: Cofinancing amount the GEF agency is bringing to the project/ The rational on why such amount is in line with the Agency's role.

UNEP is bringing technical support and estimated co-financing in the amount of $600,000 through several supporting roles.

In the context of UNEP's Caribbean Environment Program, the project is highly consistent with the objectives and sub-programmes of the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) including: strengthening the management of parks and protected areas, and promoting protected areas in the context of sustainable development and support of migratory species conservation efforts. Training programs, exchanges, tools and methodologies afforded through the regional office are targeted to build capacity for conservation management at several levels in The Bahamas.

Through UNEP's Division of Early Warning and Assessment (DEWA), including UNEP-WCMC, and in collaboration with USGS, support is provided to update the satellite based forest & mangrove inventory inclusive of a biodiversity overlay. UNEP's relevant baseline of work to implement such a project includes production of the 2010 World Atlas of Mangroves and Billion Tree Campaign, both of which featured The Bahamas and the UNEP publications of SIDS & Green Economy, REDD+ "Forests in a Green Economy".

Support will be provided by UNEP's Division of Environmental Policy Implementation (DEPI) Terrestrial Unit & Biodiversity Unit, in design of participatory forest management, ecosystem restoration,

supervision of overall project implementation, strengthening of outreach and communications, developing and adapting forest management tools/governance structures e.g. inter- ministerial/NGO/community working group for forest governance, etc. DEPI has forestry expertise to coordinate these efforts.

UNEP's overall Regional Seas Programme has substantive experience in the mangroves sector, the publication "Pacific Island Mangroves in a Changing Climate and Rising Sea" providing a wealth of best practice to draw from in the design of this project. Furthermore, lessons can be drawn from the Spanish funded, UNEP implemented project 1) "Integrated Coastal Management with special Emphasis on the Sustainable Management of Mangrove Forests in Guatemala, Honduras and Nicaragua" and (ii) EU & Spain funded Mau Forest ecosystem programme in Kenya, where institutional capacity, governance and community livelihood approaches are piloted. Opportunities for synergies with UNEP's recently approved GEF project entitled "Standardized Methodologies for Carbon Accounting and Ecosystem Services Valuation of Blue Forests" will also be explored.

The UN-REDD Programme offers opportunities for dialogue between governments, civil society organizations and technical experts, ensuring that REDD+ efforts are based on science and take into account the views and needs of all stakeholders. While the Bahamas is not a direct beneficiary of the UN-REDD programme, initial linkages have been established with a view towards accessing methodologies. common approaches, analyses, methodologies, tools, data and guidelines that facilitate REDD+ readiness work supporting country actions on REDD+ and linking forestry ( including mangroves) activities with the carbon market and the global REDD process.

**C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:**

The proposed activities and outputs directly address several of the UNEP Programme of Work Priorities including: Output: 321 - National-level capacity for assessing biodiversity critical to ecosystem functioning and resilience is developed. Output 323 - Integrated marine management mechanisms are developed and networks of Marine Protected Areas are promoted to increase the sustainability of fishing and the stability of coastal and marine habitats. Output 331 - Tools and methodologies for valuing ecosystem services are developed, pilot tested and incorporated into national systems for accounting, planning, and management (six countries).

UNEP supervision of the project is to be carried out by UNEP/DEPI-GEF staff posted in UNEP's Regional Office for North America (UNEP/RONA) in Washington DC – direct flights to The Bahamas making this a particularly expedient location. The UNEP-GEF project Standardized Methodologies for Carbon Accounting and Ecosystem Services Valuation of Blue Forests" is also managed from this office. UNEP supervision will be further enhanced by technical staff located in UNEP's Regional Office for Latin America and the Caribbean (UNEP/ROLAC) in Panama City, Panama, and UNEP's Caribbean Environment Programme (UNEP/CEP) in Kingston, Jamaica, the SPAW Regional Activity Center in Guadeloupe (supported by the Government of France) and UNEP's headquarter staff in Nairobi, Kenya.

## PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

| NAME | POSITION | MINISTRY | DATE *(MM/dd/yyyy)* |
|---|---|---|---|
| Mr. Philip Weech | GEF Operational Focal Point | **BEST COMMISSION** | **02/23/2012** |
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**B. GEF AGENCY(IES) CERTIFICATION**

| **This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.** | | | | | |
|---|---|---|---|---|---|
| **Agency Coordinator, Agency name** | **Signature** | **DATE** | **Project Contact Person** | **Telephone** | **Email Address** |
| Maryam Niamir-Fuller, Director, GEF Coordination Office, UNEP |  | 18/02/2013 | Kristin Mclaughlin | +1-202-974-1312 | kristin.mclaughlin@unep.org |
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