TC ABSTRACT

I. Basic project data

▪ Country/Region:	Bahamas
▪ TC Name:	Ecosystem-based Development for Andros Island
▪ TC Number:	BH-T1040
▪ Team Leader/Members:	Team leader: Michele Lemay (INE/RND); Alternate team leader: Cassandra Rogers (RND/CBA); Team members: Michael Nelson (CCB/CCB); Michelle Evans, Everette Sweeting (CCB/CBH); Onil Banerjee and Yolanda Valle (INE/RND).
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination.	Client Support
▪ Date of TC Abstract:	June 2014
▪ Beneficiary:	Government of The Commonwealth of The Bahamas
▪ Executing Agency and contact name	Office of the Prime Minister
▪ IDB Funding Requested:	US$600,000
▪ Local counterpart funding, if any:	n/a
▪ Disbursement period:	18 months
▪ Required start date:	July 2014
▪ Types of consultants:	Firm and individual consultants
▪ Prepared by Unit:	INE/RND
▪ Unit of Disbursement Responsibility:	INE/RND
▪ Included in Country Strategy (y/n); ▪ TC included in CPD (y/n):	Yes: Support for (i) Coastal Risk Management & Climate Change Adaptation; and (ii) Private Sector Development. No
▪ GCI-9 Sector Priority:	Poverty reduction and equity enhancement; Supporting development in small and vulnerable countries and (ii) climate change, sustainable (including renewable) energy, and environmental sustainability

II. Objective and Justification

2.1 The general objective of this operation is to ensure that the natural capital (biodiversity and ecosystem services) of Andros, one of the islands in the archipelago of The Bahamas, is mainstreamed in the development analysis and physical planning for the future of the island with a view to ensuring the future well-being of all Bahamians including Andros island residents. The specific objectives are to: (a) measure the economic value of Andros ecosystem services; (b) develop and assess the trade-offs between realistic development scenarios based on the island's natural capital and taking into consideration climate-resilient

coastal zone management; and (c) propose a viable and actionable master plan which optimizes the economic value of natural capital through sustainable use.

2.2 The island of Andros is located approximately 65km west of Nassau on the island of New Providence, the capital of The Bahamas and 233 km off the Southern tip of Florida (USA). With a total land area of 2,300 square miles, it is the largest island of the archipelago that constitutes The Bahamas.[1] With a population of approximately 10,000, and human activities that are mainly related to agriculture, tourism, fisheries, and land development with some employment in government,[2] Andros remains largely undeveloped.

2.3 Andros supports a number of coastal and marine ecosystems, including broadleaf coppice forests, pine forests, palm shrublands, sawgrass, rocky shores, beaches, mangroves, seagrass beds and tidal creeks which provide habitat for many rare and endangered species. In addition, these ecosystems provide goods and services ("ecosystem services") which are critical for the local as well as national economy. These include provisioning services (e.g., seagrass habitat for sport fish), regulating services (e.g., mangroves and reefs for protecting economic infrastructure and coastal populations from storm damage, coastal erosion, and flooding, forests and wetlands for maintaining water quality), and cultural services (e.g., bird habitat and reefs for recreation). As such, Andros retains some of the most intact and least developed natural areas in The Bahamas and has high levels of biodiversity. It encompasses the third largest barrier reef in the world, some of the most extensive wetlands in the Caribbean and the largest source of freshwater in The Bahamas. Up until 2012, the island supplied between 25-40% of the freshwater needed by Nassau. Much of these natural assets are protected in Andros' five national parks which were declared by The Government and are managed by the Bahamas National Trust (BNT). These national parks protect important areas of the biodiversity of Andros and encompass nearly one third of the island.

2.4 As recently announced by the Prime Minister in the 2014/15 Budget Communication,[3] the Government has embarked upon a multi-dimensional approach to diverse and large-scale development of Andros. The approach includes components such as the establishment of the Bahamas Agricultural and Marine Sciences Institute (BAMSI) and an associated concerted effort to revitalize the agricultural sector, promotion of ecotourism and sport fishing, planning (or revitalization) of a deep water port for both commercial and cruise ships and generally improving access to Nassau. To properly plan and guide this approach to the development of Andros, the Government has requested support from the Bank to assist in the objective consideration of alternative development scenarios that take into consideration the economic value of the natural capital of Andros in the physical planning process.[4] This support will build on recent analytical work carried out by The Nature Conservancy (TNC), the Conservation Strategy Fund, The BNT and others including the work undertaken through the Integrated Watershed and Coastal Areas Management (IWCAM) Project funded by the Global Environmental Facility (GEF), for which Andros was selected as one of the pilots.

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1 The total land area of The Bahamas is 5,380 square miles.

2 Hargreaves-Allen, V. 2010. An Economic Valuation of the Natural Resources of Andros Islands, Bahamas. Conservation Strategy Fund for the Nature Conservancy.

3 Budget Communication

4 Letter of Request

2.5 There have been attempts to measure the economic value of the ecosystem services provided by Andros island.[5] Using estimated values calculated for other locations as indications of economic value (i.e., using 'benefits transfers'), one such study found that the habitats on Andros were thought to generate US$260 million a year in net economic benefits, which if sustainable, would be worth US$4.6 billion over the next 25 years. However, the same study recognizes the shortcomings in the estimates due to the short time-frame and lack of biophysical data from Andros.

2.6 Current and emerging threats to the integrity of Andros' biodiversity and ecosystem services include water pollution, dredging and habitat conversion, overharvesting of fish stocks, invasive species, natural disasters, climate change and sea level rise. Based on the "State of the Coast Report",[6] the highest impacted areas were in North Andros and in Driggs Hill, South Andros. More research in the potential vulnerabilities of Andros to each of these threats is urgently needed as is planning appropriate land and watershed use, management and policy. An understanding of the economic value of the potential losses in ecosystem services associated with specific threats is required for policy and planning. In response to these threats and recognizing the significant ecological value of the island, several NGOs are undertaking conservation work in Andros, including TNC, The Andros Conservancy and Trust (ANCAT), Nature's Hope for Southern Andros (NHSA) and BNT. These organizations are assembling considerable information on the species and ecosystem richness of the island to assist with the effective management of the Andros national parks, and to help guide land-use planning for the island in general.

2.7 The proposed operation is designed to address urgent gaps and needs in support of evidence-based decision making on the future development of Andros including: (1) Updating and improving the measurement of economic value of ecosystem services; (2) Developing realistic development scenarios with stakeholders; (3) Comparing the changes in economic values of ecosystem services and biodiversity between different scenarios (trade-offs) and recommending an optimal scenario that is economically and environmentally viable; and (4) Developing an actionable master plan and identifying investment opportunities in coastal resilience (designed to reduce the ecological and socioeconomic risk of coastal hazards), tourism and fisheries and basic services. This work will be undertaken within a broader initiative to strengthen the national economic planning framework led by the Office of the Prime Minister (OPM) and supported by the Bank.[7] In addition, in view of the coastal nature of the entire island, its high vulnerability to the impacts of climate change and sea level rise and the associated development planning implications, the work will be undertaken in the context of a new national framework for climate-resilient Integrated Coastal Zone Management (ICZM)[8] which is being developed in parallel and also supported by the Bank. The geographic scope of the TC will encompass all of Andros (South, Central, North and Mangrove Cay), including terrestrial and maritime territory.

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5 Hargreaves-Allen, V. 2010. Ibid.

6 State of the Coast Report

7 Strengthening Institutional Capacity of the Office of the Prime Minister (ATN/FI-13792-BH)

8 Feasibility studies for a climate-resilient coastal zone management program (ATN/OC-14251-BH; ATN/OC-14250-BH, under execution.

2.8 The proposed TC will contribute to the following IDB (GCI-9) lending program priority targets:

(i) Poverty reduction and equity enhancement - improved environmental quality and governance can lead to greater opportunities for poorer segments of the population, particularly those directly dependent on the natural resource base.

(ii) Climate change, sustainable (including renewable) energy, and environmental sustainability- strengthening of the evidence-base for informing environmental policy and implementation will help improve decision making with regards to climate change mitigation/adaptation and overall sustainability.

2.9 This TC is aligned with the Coastal Risk Management and Climate Change Adaptation priority area of the IDB-Bahamas Country Strategy 2013-2017, as it further strengthens the decision-making framework and institutional capacity for ICZM. It is also aligned with the Country Strategy area of support for private sector development. Lastly, the proposed TC supports the Biodiversity and Ecosystem Services Program[9], as the TC will support the integration of biodiversity and ecosystem services into key sectors of the economy of a site with regionally significant biodiversity.

III. Description of activities

3.1 The proposed activities are described in the following table. Expected outputs and results are fully consistent with the IDB's Biodiversity and Ecosystem Services Program[10] and with the IDB-Bahamas Country Strategy 2013-2017.

ACTIVITY	DESCRIPTION	EXPECTED OUTPUTS	EXPECTED RESULTS
1.1 Validation of baseline data	Component 1.1 encompasses the following activities: (i) a gap analysis of existing information (including spatial data gaps) on biodiversity and ecosystems, infrastructure, social/demographic aspects and threats; and (ii) updating of economic values of ecosystem services	Gap analysis Updated economic values of ecosystem services	Ecosystem-based master plan for Andros with considerable knowledge transfer to the OPM and the relevant agencies
1.2 Analysis (spatial and economic) of development scenarios	Component 1.2 entails the following activities: (i) identification of development scenarios with stakeholders; (ii) spatial analysis and modelling of natural capital trade-offs; (iii) business environment analysis, including local skills; and (iv) selection of recommended development scenario with stakeholders.	Trade-off analysis of alternative development scenarios Recommended development scenario	
1.3 Development of the master plan with investment opportunities	Component 1.3 encompasses the following activities: (i) preparation of the land and sea use zoning plan (South, Central, North Andros, Mangrove Cay); and (ii) identification of investment priorities..	Master Plan List of investment opportunities	

[9] GN-

[10] http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37444118

1.4 Capacity building and e-training	Component 1.4 encompasses the following activities: (i) training needs assessment; and (ii) capacity enhancement in mainstreaming biodiversity and ecosystem services in master planning; and (iii) Training workshops covering the following topics: • ecosystem services valuation: principles and techniques; • preparing master plans • technology for economic and spatial planning • Other topics to be determined (iv)Virtualization of the various training modules.	Personnel of entities participating in TAC trained in natural capital assessment and the development of master plans and the development of e-training modules on the various training topics	Enhanced ecosystem services-based development planning skills in The Bahamas

IV. Budget

4.1 The total budget for this technical cooperation has been estimated at US$620,000 as shown in the following table:

Indicative Budget

Activity/Component	Description	IDB/Fund Funding US$	Counterpart Funding US$	Total Funding US$
Activities				
1.1 Validation of baseline data	Consultancy for gap analysis and validation of economic data	50,000		50,000
1.2 Analysis (spatial and economic) of development scenarios	Consultancy for spatial and economic analysis of development scenarios Workshops, focus groups or other local consultation mechanism for the identification of development scenarios and selection of the recommended development scenario	200,000		200,000
1.3 Development of the master plan with investment opportunities	Consultancy for the development of the master plan Workshops, focus groups or other local consensus building mechanism	200,000		200,000
1.4 Capacity building and E-training	Training workshops *Development of E-training modules based on training sessions	130,000	20,000*	150,000
Administration	Supplementary financing for the Project Coordinator (4 months)	**20,000**		**S20,000**
TOTAL		**600,000**	**20,000**	**620,000**

V. Executing agency and execution structure

5.1 The Executing Agency for the TC will be the Office of the Prime Minister (OPM). A Technical Advisory Committee (TAC) has been established under the OPM in order to

provide technical guidance in the execution of the operation, validate the alternative development scenarios and results, review and comment on consultants' interim results and draft reports. The membership of the TAC includes representatives from (i) public sector agencies including the Office of the Prime Minister, physical and economic planning, environment, agriculture including forestry, public works, climate change, finance, local government, education and social transformation; and (ii) non-governmental organizations. In order to ensure synergy between this TC and the broader national development objectives of The Bahamas as they relate to the protection of its coastal resources, the TAC established for this TC will also serve as the TAC for the TC Feasibility studies for a climate-resilient coastal zone management program (ATN/OC-14251-BH; ATN/OC-14250-BH:BH-T1029; BH-T1038), which is currently in execution.

5.2 With the support of complementary resources from this operation, the project coordinator hired with the resources of BH-T1029; BH-T1038 will provide day to day planning, coordination and implementation and supervision of the components of the TC, liaise with the TAC, finalize terms of reference, review and provide comments for the TAC on the inputs of experts, coordinate the recruitment of consultants and ensure timely submission of results.

5.3 Procurement will be carried out in accordance with the Policies for the Procurement of Works and Goods financed by the IDB (GN-2349-9) and the Policies for the Selection and Contracting of Consultants financed by the IDB (GN-2350-9).

VI. Project Risks and issues

6.1 There are two potential risks, both of which are mitigated by the execution arrangements proposed above. First, there is a risk of a lack of participation of key stakeholders on Andros in the review of alternative development scenarios and the physical planning process. This risk is mitigated by including a robust program of communications and local engagement in scoping of the alternative development scenarios and reviewing the results of the spatial analysis. Second, there could be a risk related to a lack of coordination among Government stakeholders involved with Andros and other development stakeholders (BNT, TNC, etc.). This risk is mitigated by the creation of the Technical Advisory Committee (TAC) under the Chairmanship of the Office of the Prime Minister, which will ensure coordination among key institutions. The risk is further mitigated by assigning one Project Coordinator for the ICZM project, BH-T1029, and this operation.

VII. Environmental and Social Classification

7.1 It is not anticipated that the activities to be financed in this TC will have negative direct or indirect social or environmental effects. According to the Bank's Safeguards Screening Toolkit, this operation is classified with "C": (i) no environmental or social risks; (ii) direct contribution to solve an environmental issue. See Safeguard Policy Report.