

**Marine Protected Areas Providing a Sustainable Economy for The Bahamas/ Áreas Marinas
Protegidas que Proporcionan una Economía Sostenible para Las Bahamas / Aires Marines
Protégées Assurant une Économie Durable Aux Bahamas**

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EXTENDED ABSTRACT

The Bahamas National Trust (BNT) is a non-profit, statutory organization, mandated to build and manage the National Park System of The Bahamas. Currently, Thirty-Two (32) national parks throughout the Bahamian archipelago are managed under the BNT's National Park System, covering more than 2.2 million acres, with the highest priority given to effectively manage these critically important land and seascapes.

In 2008, at the 8th meeting of the Conference of the Parties (COP-8) of the Convention on Biological Diversity (CBD), the Bahamas, along with a number of Caribbean countries, committed to the protection of 10% terrestrial environment by 2010 and 10% marine environment by 2012. Also in 2008, The Bahamas, and other Caribbean countries, signed on to The Caribbean Challenge Initiative (CCI), and thus The Bahamas' 2020 Declaration was signed. This initiative is an agreement to protect and effectively manage 20% of near shore and marine environments by year 2020. In 2010, at the 10th meeting of the COP-10 of the CBD, it was noted that the world's biological resources were still in decline and specially agreed targets, known as Aichi Biodiversity Targets, were developed and adopted by all of the countries at this convention as a result of the meeting. One of these targets called for the countries to protect 20% of marine and coastal areas by year 2020.

Bahamas Protected is a three-year initiative to effectively manage and expand the Bahamian marine protected areas (MPA) network. It aims to support the Government of The Bahamas in meeting its commitment to the Caribbean Challenge Initiative (CCI) - a regional agenda where 11 Caribbean countries have committed to protect 20 percent of their marine and coastal habitat by 2020. CCI countries have also pledged to provide sustainable financing for effective management of MPAs. *Bahamas Protected* is a joint effort between The Nature Conservancy, the Bahamas National Trust, the Bahamas Reef Environment Educational Foundation and multiple national stakeholders, with major funding support from Oceans 5.

With the country already being at 10%, the team joined together to ensure that the next 10% was selected with the assistance of local communities and relevant scientific data to ensure the country met its conservation targets and ensure that protected habitats that would be beneficial to the long term sustainable of our marine ecosystems. *Bahamas Protected* is focused on increasing effective management of current marine protected areas and effective expansion of the Bahamian marine protected areas (MPA) network to safeguard the economic value of marine ecosystems. As a component of the *Bahamas Protected* project, Bahamas National Trust led stakeholder consultations to gain local knowledge from communities on areas being proposed. The Natural Capital Project was contracted to quantify the economic value of ecosystems within the Bahamian MPAs and to determine the current tourism and fisheries values to better inform the selection process for the next 10%. The economic value of ecosystem services, and the livelihoods they support, indicate the importance of managing the MPA network now in order to help safeguard against the loss of economic and societal benefits to Bahamians, the Caribbean, and people worldwide in the future. Traditional approaches to MPA management focus on ecological considerations, such as a sufficient diversity and proximity of habitats. While such factors are essential for sustaining species, they may miss the societal importance of MPAs. Increasingly, conservation practitioners, governments, and other stakeholders are considering the benefits that nature provides to people, or 'ecosystem services'. Diverse, functioning ecosystems provide a myriad benefits that can be sustained through effective protected area management. Nearshore habitats bolster the stocks of fisheries, beaches and reefs draw tourists, and coastal forests and seagrasses buffer storm waves, mitigate climate, and promote water quality. Based on the Natural Capital Project's previous work in The Bahamas and throughout the Caribbean, we quantified the economic value of four key ecosystem services within the existing MPA network. We take two distinct, but complementary approaches. For the current MPA network, we estimate gross value of ecosystem services provided at each site as compared to no service provision. For New Providence and Andros, we include risk of human activities to ecosystems and services. Coupled with costs, this information could be leveraged to estimate the net value of Bahamian MPAs. The value of ecosystem services within individual MPAs vary greatly across the network as a function of ecological, social, and economic factors, as well as, be used to gather support for new declarations and inform management.

The results from the economic valuation showed a positive influence in stakeholder support. (Table ES-1

Table ES-1. Value of four ecosystem services provided by existing marine protected areas in The Bahamas.

Ecosystem Service	Values provided by ecosystems within the existing MPA network	Factors that influence spatial variation in ecosystem service value (not comprehensive)
Tourism	383,000 visitor-days and \$67.6 million in expenditures annually	Island differences in visitation, expenditure, habitat extent, access, infrastructure
Coastal protection	Reduced exposure to 39,000 people and \$806 million in income annually	Habitat type and quality, coastal elevation, shoreline type, surge potential, wave characteristics, sea-level rise, proximity of habitats in MPA to coastal population
Nursery habitat for spiny lobster	6 million lbs. and \$23.5 million in revenue from the lobster fishery is attributable to nursery habitat annually	Habitat type and extent, larval recruitment to nursery habitat, proximity of nursery habitat to shallow shelf habitat for adults
Carbon storage for climate mitigation	400 million tons of CO ₂ stored and \$5 billion in avoided damages from emissions globally	Relative abundance of mangroves and seagrass, carbon stored in soil and aboveground biomass (based on climate).

KEYWORDS: Sustainable economy, effective management

LITERATURE CITED

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