#### **CEPF Final Project Completion Report**

*Instructions to grantees: please complete all fields, and respond to all questions, below.* 

Organization Legal Name	Island Conservation
	Feasibility Analysis, Operational Planning, and Capacity
Project Title	Building to Eradicate Invasive Alien Species in The
	Bahamas and Dominican Republic
CEPF GEM No.	62348
Date of Report	October 31, 2015
Report Author	Wesley Jolley
Author Contact Information	wes.jolley@islandconservation.org

**CEPF** Region: Caribbean Islands

Strategic Direction: Strategic Direction 1. Improve protection and management of 45 key biodiversity areas

Grant Amount: \$163,264

Project Dates: June 1, 2013 through August 31, 2015.

## **1.** Implementation Partners for this Project *(list each partner and explain how they were involved in the project)*

<u>Grupo Jaragua</u> - GJ is a nonprofit conservation organization in the Dominican Republic with emphasis in the sustainable management of the Jaragua National Park as part of the Jaragua-Bahoruco-Enriquillo Biosphere Reserve; they were also a co-leader in this project. Alto Velo Island lies within the Biosphere Reserve and is part of the Jaragua National Park. GJ collaborated in the development and revision of operational and biosecurity planning for Alto Velo, providing information on logistics, safety and biological aspects of the project. GJ assisted in coordinating a 2-day workshop to build capacity on island restoration projects which was attended by local biologists from the Ministry of Environment and Natural Resources in the Dominican Republic and GJ personnel. GJ surveyed 115 individuals from four fisheries communities in Jaragua National Park to examine local communities' visitation and use of Alto Velo Island to inform management decisions.

GJ completed project products, including increasing staff capacity for the planning process of invasive alien vertebrate (IAV) eradication projects and island biosecurity protocols and participating in one Dominican Republic National Invasive Species Committee meeting to discuss operational and biosecurity planning for Alto Velo.

<u>Bahamas National Trust</u> – BNT was a co-leader in this project and has the national legal mandate to advise government on, and manage national protected areas. BNT championed Booby Cay as deserving priority national protected status. BNT collaborated in science-based management planning, including: providing staff to participate in the project, completing project objectives requiring field time on Mayaguana and Booby Cay, sharing local expertise, leading national stakeholder involvement with Booby Cay management planning, and reviewing and editing plans. BNT staff gathered ecological data on the site visit to Booby Cay. This information was used in the feasibility assessment, national park proposal, and elsewhere.

BNT led the education and outreach components of this project by hosting and participating in stakeholder meetings, providing education to school children, and creating education and outreach products (e.g. billboards and magnets). This work required staff to travel to Mayaguana four times and to Booby Cay twice.

BNT also led the process of promoting the importance of giving Booby Cay protected status as a national park, a goal that was achieved on August 31, 2015.

#### **Conservation Impacts**

- 2. Describe how your project has contributed to the implementation of the CEPF ecosystem profile
  - This project fits within CEPF ecosystem profile Strategic Direction 1: Improve protection and management of 45 key biodiversity areas (KBA). This project improved the protection and management of islands in two KBAs: Alto Velo (102 ha) is within the Parque National Jaragua KBA (169,400 ha) in the Dominican Republic, and Booby Cay (75 ha) is within the Booby Cay KBA (2400 ha) in The Bahamas.

- This project advances Investment Priority 1.1: Prepare and implement management plans in the 17 highest-priority key biodiversity areas, through the creation of planning documents for Alto Velo. Through this project, we wrote an operational plan to remove invasive species and created a biosecurity plan to prevent new invasions.
- Booby Cay contributes to Investment Priority 1.2: Strengthen the legal protection status in the remaining 28 key biodiversity areas. Booby Cay was unprotected at the beginning of this project and was declared a national park in August 2015.
- This project contributed to Investment Priority 1.3: Improve management of invasive species in the 45 priority key biodiversity areas. On Alto Velo, an operational plan to remove invasive species and a biosecurity plan to prevent new invasions have been created. On Booby Cay, a feasibility assessment for the removal of black rats and a biosecurity plan to prevent new invasions have been created.
  - Invasive species are scored as the highest priority threat facing Caribbean island biodiversity hotspots in the ecosystem profile.

#### 3. Summarize the overall results/impact of your project

- Engaged the DR Ministry of Environment and Natural Resources staff in the development of biosecurity and operational plans for Alto Velo Island.
- Completed draft biosecurity and operational plans for the removal of goats, black rats and cats from Alto Velo.
- Increased the capacity and skills needed for IAV management in two local staff from Grupo Jaragua.
- Surveyed and interacted with fishermen from local communities regarding an eradication project on Alto Velo.
- Island Conservation and Grupo Jaragua continued to strengthen our relationship that started in 2012.
- Developed and completed a Memorandum of Understanding between Island Conservation and the DR's Ministry of Environment and Natural Resources to support offshore islands restoration projects.
- Exposed the National Invasive Species Committee to the IAV eradication planning processes to getting feedback and input on proposed actions.
- Booby Cay (75ha) officially became protected as a national park on August 31, 2015.
- Five community meetings in Mayaguana communities, and two school events, effectively informed and engaged the Mayaguana community in regards to the value of protecting Booby Cay, the process of creating a national park, and the threats to the cay including invasive species. Two of these meetings were hosted by the Member of Parliament for Mayaguana.
- Engaged Bahamas national government officials in at least three meetings where Booby Cay and other protected areas were discussed.
- Targeted four key audiences with four physical communication products. These and broader audiences were also targeted with one article, an online petition, and multiple presentations and social media posts.
- Ten BNT staff gained capacity through a 2-day communication training and planning workshop and by executing planned communication activities.

- Three BNT staff gained capacity in invasive species management planning through training and participation in the site visit data collection and creation of the feasibility assessment to remove black rats (*Rattus rattus*) from Booby Cay.
- Confirmed that goats (*Capra hircus*) were previously removed from Booby Cay.
- Completed a feasibility assessment for the removal of black rats, a biosecurity plan, and a national park proposal.
- Island Conservation and BNT continued to strengthen our relationship. We are currently seeking funding that would continue a programmatic approach to black rat eradiation to protect endangered species in the Bahamas, beginning with a project on Pasture Cay.

#### Planned Long-term Impacts - 3+ years (as stated in the approved proposal)

Alto Velo Island in Jaragua National Park Key Biodiversity Area provides critical habitat to endangered and endemic species and is an invaluable resource to Jaragua National Park. Booby Cay Key Biodiversity Area in the Bahamas is a globally recognized national park free of invasive herbivores and predators. As a result of this protection, endangered and endemic species populations are increasing, and the effectiveness of IAV removal techniques is established to inspire restorations at other sites and in other countries.

#### 4. Actual progress toward long-term impacts at completion

- Local community survey was completed, gathering information about the current management of Alto Velo and initiating community engagement, an important step in the project's planning process towards Alto Velo's restoration.
- An operational plan to eradicate invasive goats, cats (*Felis catus*) and black rats has been created for Alto Velo. The plan describes the technical strategy, logistics, safety needs, non-target project risk analysis (including non-target species), environmental effects, operational team, task schedule, and the operational timeline.
- A biosecurity plan was developed to protect the unique island ecosystem of Alto Velo after the removal of invasive alien vertebrates (IAV), preventing the re-introduction of invasive species.
- A Memorandum of Understanding (MOU) was signed between Island Conservation and the DR's Ministry of Environment and Natural Resources to acknowledge the interest and commitment by both parties to restore offshore islands ecosystems threatened by IAV in the DR. The signed MOU demonstrates government and partners' interest and responsibility taken to effectively manage invasive species in the country in order to protect endangered and endemic species populations on Alto Velo.
- Booby Cay was declared a national park on August 31, 2015, demonstrating full government and community support for the creation of a new protected area.
- Booby Cay was declared free of invasive herbivores (goats) in April 2014 after a team of six scientists failed to detect any evidence of their presence and saw indications that the island was recovering.
- A feasibility plan has been created to assess a project to eradicate black rats from Booby Cay. The project was deemed to be feasible.
- Efforts are proceeding to implement a small project on Pasture Cay in the Bahamas to eradicate black rats in the presence of iguanas. These efforts will contribute to a

programmatic approach to eradicating black rats from Bahamian Islands which may include Booby Cay.

• The declaration of Booby Cay as a national park will prompt additional management planning by BNT, which will include an invasive species component.

**Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal)** Short term impact 1. At the end of year 3, Island Conservation's technical cooperation with BNT and GJ, and the project's output of assessment, operational, and biosecurity plans create a national invasive species policy framework which results in government commitment to the restoration of Alto Velo and Booby Cay.

Short term impact 2. At the end of Year 3, two leading Caribbean NGOs (BNT and GJ) have developed technical capacity and are effective advocates, facilitators, leaders in invasive species policy and action plans in the Bahamas and Dominican Republic.

Short term impact 3. At the end of Year 2 resulting from the project' s communication and outreach actions, key members of the Mayaguana community, council, and national government support the removal of invasive vertebrates from Booby Cay.

Short term impact 4. At the end of Year 3, BNT will submit a proposal to include Booby Cay in the National Park System which will be accepted by the Government of the Bahamas.

Short term impact 5. At the end of Year 3, at least four funding proposals are submitted including two national financing action plans for GEF 6 program (STAR allocations and Core Program 5); GEF focal points are engaged and committed; and \$1.5M is pledged or secured to support implementation of invasive species eradication efforts on Alto Velo and Booby Cay.

#### 5. Actual progress toward short-term impacts at completion

Short term impact 1

- The documents produced (feasibility plan, operational plan and biosecurity plan), and processes involved in their creation, demonstrate and build capacity for using internationally accepted best practice for the planning and eventual implementation of projects to eradicate invasive vertebrates from islands.
- The Ministry of Environment and Natural Resources in conjunction with other local partners are willing to continue protecting and conserving the biodiversity on Alto Velo through the effective removal of invasive alien vertebrates.
- The MOU signed to restore offshore islands in DR support the current national invasive species policy created in 2011 and composed by 19 members including governmental and non-governmental organizations from the DR.
- The participation process of the DR National Invasive Species Committee in the development of operational and biosecurity plans for Alto Velo served as a tool to build local capacity and increase the governmental and non-governmental commitment to the restoration of Alto Velo.

- The document demonstrating the feasibility of removing black rats from Booby Cay, which was written in collaboration with BNT who will manage the new national park, represents a critical step in any eventual invasive species eradication project. The document contains important information for future decision making, and will allow a future project to proceed more efficiently
- The declaration of Booby Cay as a national park will promote additional management planning in relation to invasive species. Stakeholders engaged during the park planning process expressed support of a future project to eradicate black rats.

#### Short term impact 2.

- Four GJ staff members (Yolanda Leon, Ernst Rupp, Sixto Inchaustegui and Esteban Garrido) received training through a 2-day workshop in early 2014 on invasive species eradication processes including: project identification, feasibility assessment, project design, project sustainability, international best practices, biosecurity protocols, and conservation measures.
- Ernst Rupp and Yolanda Leon worked with IC to provide biological information and revision of the operational and biosecurity plan for Alto Velo.
- Ernst Rupp and Yolanda Leon created and implemented the survey for fishermen from local communities in Jaragua National Park. The information gathered in the survey was utilized to develop the key components in the biosecurity plan and also to understand certain management aspects of the island.
- Two BNT staff members, Cameron Saunders and Lindy Knowles, received training on invasive species eradication planning processes, survey, and handling techniques before and during the site assessment trip to Booby Cay in early 2014.
- Vanessa Haley-Benjamin worked with IC to create, review and finalize the feasibility assessment and biosecurity plan for Booby Cay.
- Ten BNT staff participated in a communications planning workshop held in Nassau in June 2014. The capacity gained during this time was used to effectively develop and implement the communication strategy that focused on Booby Cay, the need for protection, and the threats presented by invasive species.

#### Short term impact 3.

- BNT participated in five community meetings, provided two educational events for school children, and produced and distributed four different physical communication materials. These structured interactions were supplemented with multiple informal interactions. Community members expressed to BNT support towards removing black rats from Booby Cay to protect the Bartsch's Iguana (*Cyclura carinata bartschi*).
- The national park designation demonstrates a commitment by the national government to protect and preserve Booby Cay. BNT's next steps for Booby Cay National Park includes the creation of a management plan, which will include a strategy to address invasive vertebrates.
- Goats, identified as the most immediate invasive threat to Booby Cay, were discovered to have been removed prior to the site visit in 2014. Biologists and island users have shared anecdotes describing the changes and recovery on Booby Cay since goats were

removed. These changes, and the fact that the goat removal (although not a formal project) was supported by the local communities will help advance social acceptance and support of a future rodent eradication, should it be deemed a priority for the park.

#### Short term impact 4.

• Booby Cay was declared a national park on August 31, 2015. A proposal was drafted, but the park declaration occurred before it was submitted. The processes involved in the creation of the proposal led to the protection of the cay as a national park.

#### Short term impact 5

- A project concept for a GEF-6 project was developed with the Dominican Republic Ministry of Environment and Natural Resources for Alto Velo restoration. However, the concept was not progressed to the next stage due to the selection of an alternative GEF-6 project by the Dominican Republic government.
- Additional funding sources have been identified, such as LifeWeb, the Spanish Agency for International Development Cooperation (AECID), GEF-7, the Caribbean Biological Corridor, and potential mitigation funds from the Deepwater Horizon spill.
- Two proposals to advance the work on Booby Cay were submitted, but both were unsuccessful: Disney Worldwide Conservation Fund and Seaworld and Busch Gardens Conservation Fund.
- IC was invited by the Bahamas BEST Commission to participate in a national workshop to present potential projects for GEF-6 funding. The workshop is not yet scheduled, but IC plans to participate and use the opportunity to promote potential projects to remove invasive vertebrates from islands, with a top priority being using a programmatic approach to eradicate black rats from islands where they are impacting iguanas and other native and endemic species.

## 6. Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives

- Island Conservation built new relationships and strengthened existing ones over the course of this project while working towards short-term and long-term objectives.
- The fishermen's survey, including its development and implementation, was successful and challenging due to the relatively large number of communities and fishermen in the Jaragua National Park that may visit Alto Velo for any purpose. Through informal consultations, GJ was able to identify the majority of the fishermen visiting Alto Velo and obtain valuable information from them.
- Obtaining detailed information needed to complete Alto Velo's operational and biosecurity plan was challenging given the lack of capacity from local people in the DR for this type of project. The plan's development was useful for local partners to gain capacity in eradication processes, however, there are operational aspects that will require that IC be consulted on the next steps of eradication planning and establishment of biosecurity measures.

- The target species for eradication on Alto Velo are invasive goats, cats and black rats. At the beginning of this project, we had planned the eradication in two phases starting with goats and following up with rats and feral cats. However, based in the fishermen survey results, only a small number of goats are remaining on Alto Velo, translating this into a different project approach and reducing efforts and logistics.
- Alto Velo is a remote island in the DR which limits the visitation and thus its management. The main obstacle expressed by GJ and the Ministry to conducting an eradication project on Alto Velo is the transportation. As a result, we thoroughly discussed the different options available for mobilizing and implementing all the project needs.
- Despite of island's location, a significant number of fishermen visit Alto Velo throughout the year. Based in this discovery, the implementation of biosecurity measures by partners and the commitment to improve the island's management obtained greater importance along the planning process.
- At the beginning of the project, goats were believed to be present on Booby Cay in small numbers. A project to remove a small number of goats was expected to be a relatively inexpensive and easy project. The absence of goats effectively advanced planning for Booby Cay towards a project to remove black rats, which is a more complicated and expensive proposition.
- An eventual project to eradicate black rats from Booby Cay will be most successful if it is part of a programmatic approach that begins with projects on similar but smaller islands like Pasture Cay. This increases the time frame for which a project on Booby Cay is likely, but the lessons learned on smaller projects will increase the support and efficiency of future projects.
- We have not yet been successful in acquiring additional funding, from GEF-6 or elsewhere, for either Alto Velo or Booby Cay.
- The creation of biosecurity plans is difficult when there is no funding established to implement the plan.

#### 7. Were there any unexpected impacts (positive or negative)?

- The MOU signed to restore offshore islands in DR provides support for the next steps of Alto Velo's restoration and other ongoing restoration projects such as Cabritos Island.
- GJ and the Ministry have expressed interest in continuing their collaboration to raise funds for implementing Alto Velo's project components towards eradication.
- A revision of the management plan for Alto Velo is being conducted, and the management of IAV's has been included as a recovery action for the native and endemic populations.
- The Mayaguana community expressed interest in the creation of additional protected areas on Mayaguana, including a new park at Curtis Creek, a key fish nursery near the community of Abraham's Bay.
- The declaration of Booby Cay as a national park was not expected within the time frame of this project.

#### Project Components and Products/Deliverables

#### Component 1 (as stated in the approved proposal)

Component 1: An operational plan that presents a systematic, science-based approach to the eradication of feral goats, cats, and rats from Alto Velo, including logistics, project management, and technical operations is developed with GJ, the Ministry of the Environment and Natural Resources in the Dominican Republic.

#### 8. Describe the results from Component 1 and each product/deliverable

#### Product/Deliverables:

Product/Deliverable 1.1 By the end of year 1, a joint IC / GJ / Ministry of the Environment and Natural Resources meeting to discuss and outline the operational plan framework, science-based best practices, and biosecurity plan.

The process was initiated in 2013 through a meeting with IC and GJ in Santo Domingo. During this meeting, the Alto Velo project brief was presented, and the short-term project activities were discussed. Due to time constraints, a separate meeting was conducted with the Ministry of Environment and Natural Resources to discuss the same topics, including their roles and responsibilities in the project. Handouts outlining the frameworks for operational and biosecurity plans were provided to both parties, and all parties agreed to collaborate on the implementation of project activities.

# *Product/Deliverable 1.2 By the end of year 2, review GJ and Ministry current management plan for Alto Velo.*

There is no a management plan specifically for Alto Velo. The current management plan is for the Jaragua National Park where Alto Velo is a component of the plan. The GJ and Ministry completed a review of the plan with a focus on the management actions specific to Alto Velo, and both parties concurred that the plan (written in 1986) did not fully address critical management actions particular to natural resources on island such as seabirds, reptiles, invasive species, and biosecurity. Both parties agreed that the inclusion of these management actions for Alto Velo is a need and should be included in a future version of the plan.

# Product/Deliverable 1.3 By the end of year 3, draft biosecurity and operational plans with joint review complete and revisions by GJ and the Ministry incorporated to present biosecurity and operational plans to the National Invasive Species Committee (DR) for their review.

In collaboration with GJ and the Ministry, Island Conservation began an extensive gathering of available information in early 2014 to develop draft biosecurity and operational plans. In May 2014, a workshop was conducted in Santo Domingo with GJ and the Ministry's staff participation to present progress on the plans and also build capacity in project eradication components. The workshop served as a tool to fill gaps in information required in the plans and identify logistical and operational aspects critical for the eradication. On September 2014, a meeting with the DR National Invasive Species Committee was conducted to present and review the progress of the both plans; good support and feedback was obtained from all of the attendees. The first draft of both plans was finalized and sent to GJ and the Ministry for review by December 2014. Due to the reviewers' heavy workload, the review process took more time than expected. By August

2015, the plans were revised and returned to Island Conservation. Comments were incorporated and an updated version of both plans were completed. These plans are not in their final version due to information gaps in certain operational and biosecurity aspects of the project.

#### *Product/Deliverable 1.4 By the end of the grant term, final drafts distributed to collaborators.*

After collaborators provided revisions, comments were incorporated and updated versions of both plans were completed. Despite the fact that the plans are not in their final versions, the most recent versions were distributed to GJ and the Ministry by the end of the grant term.

#### Component 2 (as stated in the approved proposal)

*Component 2: A science-based feasibility assessment of conservation threats and possible solutions for Booby Cay is developed and made available to land managers (government and BNT).* 

#### 9. Describe the results from Component 2 and each product/deliverable

*Product/Deliverable 2.1 By the end of year 2, a feasibility assessment of the IAV removal from Booby Cay is developed collaboratively by IC and BNT.* 

The feasibility assessment process was initiated in 2013 in a meeting of IC, BNT, The Minister of Environment and Housing, and The Executive Director of the BEST Commission in Nassau, the Bahamas. During this meeting, the Booby Cay project brief was presented. In early 2014, five scientists from IC, BNT and the IUCN Iguana Specialist Group visited Mayaguana and Booby Cay and collected information relevant to the feasibility assessment. Goats were determined to no longer be present on Booby Cay, but black rats were confirmed as present. IC and BNT drafted, reviewed, and revised the feasibility assessment document evaluating the potential project to remove black rats from Booby Cay. The document was finalized in December 2014 and distributed in 2015.

A project to eradicate black rats from Booby Cay was deemed feasible in assessed areas of: technical approach, sustainability, social acceptability, political and legal acceptability, environmental acceptability, capacity, and cost. The largest obstacles identified were funding and the need for extensive biosecurity protocols due to the relative proximity (500m) of a rat infested island.

# *Product/Deliverable 2.2 By the end of year 2, a biosecurity plan for Booby Cay is developed collaboratively by IC and BNT*

The biosecurity needs were outlined in the 2013 meeting mentioned above. The team trapped black rats on Booby Cay and western Mayaguana during the 2014 site visit and collected DNA samples from the captured animals. IC and BNT drafted, reviewed and revised the biosecurity plan to prevent new invasions to Booby Cay. The document was finalized in December 2014 and distributed in 2015.

The biosecurity plan assessed the vertebrate species most at risk of invading Booby Cay and their potential impacts. The plan also includes suggested measures to prevent, monitor, and respond to a new introduction. The species deemed of greatest overall risk are dogs and cats, which could quickly and severely decrease the population of the Critically Endangered Bartsch's Iguana. A 'Local Champion' was identified as a key need for a successful biosecurity program. This person could be a volunteer or paid position who lives on Mayaguana and can lead education, prevention, monitoring and response efforts with support from BNT and other organizations such as IC.

Product/Deliverable 2.3By the end of year 2, incorporated into the feasibility assessment are the site visit data for potential negative impacts to non-target species as a result of IAV removal operation and the identified mitigation needs.

During then 2014 site visit to Booby Cay, the team collected data on the plant, reptile and bird species in addition to data on invasive vertebrate species. The feasibility assessment included a preliminary assessment of risk to the three reptile and 40 bird species recorded on Booby Cay. Risk was divided into three broad categories with the most notable being the potential risk of impacts from the use of a toxicant to eradicate black rats.

The preferred technical approach identified in the feasibility assessment is to set bait stations out across the entire island and maintain toxicant bait in them until the eradication has been achieved. This method presents the fewest risks to not-target species when compared to methods such as broadcasting bait across the island, because a properly designed bait station will reduce the accessibility of bait to many non-target species.

The feasibility assessment recommends the use of an anticoagulant rodenticide, but further consultation amongst stakeholders to determine the exact product would be necessary as part of the operational planning process of an eradication project. The risk of primary (eating the bait) and secondary (eating something that ate the bait) poisoning will vary based on the anticoagulant used.

The preliminary risk assessment included an assessment of the risk of exposure and the potential consequence on the global population of the species. A project to eradicate black rats using anticoagulant baits in bait stations was deemed to present a very low risk and very low consequence to the majority of species found on Booby Cay. However, more information is needed to inform decisions on mitigation measures for the Bartsch's Iguana. The risk of exposure is likely low, but the potential consequence could be high since this sub-species is found only on Booby Cay. Potential mitigation measure could include temporary holding or temporary relocation of a significant portion of the population.

*Product/Deliverable 2.4 (AMENDMENT OCT 2014): By the end of year 2, DNA analysis of rats on Booby Cay and Mayaguana island is conducted to determine relatedness and inform the feasibility assessment.* 

Forty-four DNA samples were collected from black rats on Booby Cay, and eighteen samples were collected on Mayaguana. The DNA samples were processed and analyzed by Ecogene in

New Zealand who provided a report of findings. The findings were incorporated into the feasibility assessment and the report was included as an appendix.

DNA analysis revealed a clear genetic distinction between Mayaguana and Booby Cay. No evidence was found of recent or historic mixing of the populations in either direction. These results are encouraging when assessing the risk of natural reinvasion of black rats from Mayaguana to Booby Cay after an eradication, but are not enough to prove a risk does not exist. The two islands are separated by 500 meters, which is within the known swimming distance of black rats. It is possible that rats do occasionally swim between the two islands but do not successfully integrate into the existing breeding population. A rat that swims to a new island may have a higher chance of survival in the absence of intra species competition.

#### Component 3 (as stated in the approved proposal)

Component 3: Social and ecological benefit data for Booby Cay is gathered and synthesized into a cooperative, stake-holder supported proposal for national park status and proposal is submitted.

#### 10. Describe the results from Component 3 and each product/deliverable

*Product/Deliverable 3.1: By the end of year 2, key stakeholders defined and directly engaged on project goals, benefits, and results.* 

The key stakeholders were identified as local officials on Mayaguana, the residents of Mayaguana and the national government. Local stakeholders were engaged throughout the project including eleven official meetings, education, and outreach events. The subject matter of these events was relevant to the audience and phase in the project. Early on, the objectives were to inform of the purpose, rationale and activities planned while seeking initial feedback from stakeholders. Later, the engagement focused on educating on the importance of Booby Cay, the plan to propose a national park, and the value of having a national park. These interactions occurred over four trips to Mayaguana, which presented many additional opportunities for informal engagement.

National stakeholders were primarily involved in the national park proposal and declaration process. IC and BNT were involved in one formal meeting in December 2013, and BNT discussed Booby Cay in at least three meetings with national government stakeholders from The Ministry of the Environment and Housing and BEST to provide evidence for government consideration in declaring Booby Cay a national park.

# Product/Deliverable 3.2: By the end of Q1 year 3, a report by IC/BNT is prepared, documenting impacts of IAVs on species, presence/absence data of IAV species, faunal, vegetation, socioeconomic, and heritage/cultural data specific to Booby Cay.

This process started with a literature review of Booby Cay and Mayaguana that identified 58 documents (peer-reviewed and gray literature, maps, theses, reports, records, etc.) related to the islands and the people who live on and near them. Data on IAV species, flora and fauna was collected during the site visit in early 2014. The only invasive vertebrate species established on

Booby Cay is black rats. Fifty-four species of species of plants were identified, five of which are endemic to the Bahamas. Three reptile species and thirty-eight bird species were recorded during the site visit. These activities greatly increased knowledge about the cay, especially in regards to plant and bird species. The findings of the participants in the site visit were captured in technical reports.

IC and BNT designed a survey and received twenty-two responses from approximately 200 residents of Mayaguana. This sample size does not allow us to make statistically defensible assertions, but was still valuable in planning education and communication materials. The survey had questions related to media consumption, awareness of Booby Cay and its protection status, and attitudes towards iguanas and invasive species. Some of the key results were:

- Everyone surveyed knew of Booby Cay and its location.
- Before the park declaration 64% knew that Booby Cay was not a national park, however 36% believed it either was or might be a park.
- 86% agreed that invasive species should be removed if they are damaging Booby Cay.
- 86% could reasonably define the word 'extinction' but only 50% could reasonably define 'invasive species'.

The various information gathered during these activities was not summarized into a single specific report. However, the information was critical to the completion of the feasibility assessment, biosecurity plan and draft national park proposal. Socioeconomic findings were also used in planning and implementing the communication and outreach activities.

# Product/Deliverable 3.3: By the end of the project, a proposal toward legal protection of Booby Cay as a national park is submitted by BNT with stake-holder support to government

Booby Cay was declared a national park in an announcement made by the Honorable Kenred Dorsett, Minister of the Environment and Housing, on August 31 2015. This significant accomplishment goes beyond what was expected during the course of this project.

The process of declaring Booby Cay a national park occurred somewhat differently than was expected at the start of this project. The various activities completed as part of this project generated such strong interest amongst key people and organizations that Booby Cay was declared a national park before the proposal was formally submitted.

#### Component 4 (as stated in the approved proposal)

*Component 4: Increased capacity of Caribbean NGO staff managing islands threatened by IAVs.* 

#### 11. Describe the results from Component 4 and each product/deliverable

Product/Deliverable 4.1: By the end of year 1, local Dominican Republic and Bahamas NGO capacity for island restoration and IAV eradication is increased based on \$6,500 and \$32,533 sub-grants from this project with formal agreements outlining how funds will support increases in focused staff time on the projects to achieve project objectives.

Island Conservation convened separate meetings with the Bahamas National Trust and Grupo Jaragua to develop the sub-grant agreements, define the scope of work, and conditions for cooperation. The sub-grant with the Bahamas National trust was signed in December 2013 and the sub-grant with Grupo Jaragua was signed in March 2014.

Both organizations submitted periodic performance and financial reports, results of which were incorporated in IC's interim reports and this document. The sub-grants were completed, and final payments made, on August 31, 2015.

NOTE: the text of this Product/Deliverable has an error. The actual amount of the sub-grant to the Bahamas National Trust, both in the budget of the agreement between IC and CEPF and the sub-grant agreement between IC and BNT, is \$30,733. The amount of \$32,533 appears only in the text for Product/Deliverable 4.1 and is likely an artifact of a preliminary budget.

Product/Deliverable 4.2: By the end of the project, at least two local Dominican Republic biologists have new skills and knowledge in IAV eradication concepts, international best practices, project planning processes, and biosecurity protocols, developed during cooperative management planning and informal, hands-on training.

During the project, Grupo Jaragua staff gained capacity through various activities. Beginning in 2013, during the first meeting with Grupo Jaragua, Jose Luis Herrera and Boris Fabres started the capacity building by outlining the operational and biosecurity plans framework. Three GJ staff members attended the meeting, Yolanda Leon, Ernst Rupp and Sixto Inchaustegui. This meeting served to introduce the project and to develop a plan to achieve the deliverables and products for the project.

Jose Luis continued to maintain communications with Yolanda Leon and Ernst Rupp following the strategy discussed in the first meeting. Jose Luis and GJ staff worked together for 5 months remotely, exchanging information about IAV eradication concepts, international best practices, project planning processes and biosecurity protocols. During these 5 months, GJ staff received supporting materials about eradication projects. More formally, on May 2014, a workshop was held in Santo Domingo where two IC staff (Jose Luis and Kirsty Swinnerton) and four GJ and Ministry staff members attended two days of presentations and discussions about IAV eradication topics; all of the attendees also had the opportunity to contribute in the development of the plans, providing information about Alto Velo.

Product/Deliverable 4.3: By the end of the project, at least two members of BNT have new skills and knowledge in IAV eradication concepts, international best practices, project planning processes, biosecurity protocols, non-target impacts, and IAV field survey and detection techniques, achieved through IC/BNT joint field work and management planning to jointly achieve project objectives.

During this project, Bahamas National Trust staff gained capacity through various avenues. In December 2013, Island Conservation staff member, Wesley Jolley, held meetings with two BNT staff members targeted for capacity building, Cameron Saunders and Lindy Knowles. These meetings served to introduce the project, but also to introduce the concepts and methods used in feasibility assessments for eradication projects and biosecurity planning.

Wesley visited the BNT offices in Nassau in January 2014. During this time, he made a presentation/webinar to BNT staff that provided an overview of the problem of invasive vertebrates on islands, the lifecycle of an eradication project, the process of assessing the feasibility of an eradication project, and anecdotes from the ongoing eradication project on Cabritos Island in the Dominican Republic.

Wesley, Cameron and Lindy were among the six scientists who participated in the site visit to Booby Cay in early 2014. These three led the invasive species component of the visit, and the BNT staff gained capacity in survey and detection methods for goats (including how to build confidence that goats had been completely removed), detection methods for rodents, trapping methods for rodents, handling and humane euthanasia of rodents, and data and DNA collection. During this time, the three completed additional training sessions in the concepts of feasibility assessments, biosecurity planning/protocols, eradication concepts and best practices, and nontarget impacts.

Wesley Jolley worked with Vanessa Haley-Benjamin to draft, review, update, and finalize the feasibility and biosecurity plans. This process served as a mutual capacity building exercise. Vanessa gained capacity in feasibility and eradication planning, and Wesley gained capacity and understanding of the social and political components of the eradication planning process.

# *Product/Deliverable 4.4: By the end of the projects, at least two member of BNT will have new skills in IAV-specific communication techniques.*

IC staff member, Heath Packard, coordinated meetings with BNT staff (including Lynn Gape, Claudine Green, and Vanessa Haley-Benjamin) to plan a communications workshop. These meetings served as an initial opportunity to build capacity through evaluating and defining the specific tactics for engaging stakeholders, the value and limitation of print materials, strategic timing of communications and outreach events, communicating about invasive species and eradication projects effectively, and customizing communications tools for the specific audiences and subject matter.

In June 2014, Heath Packard produced a communications workshop that was hosted by BNT and attended by ten BNT staff members and four representatives from other government and non-government organizations. This two-day training and planning workshop focused on the collaborative creation of a communications strategy for the Booby Cay national park proposal. Two discrete presentations were provided regarding effective communication on invasive species issues, messaging, tactics and planning. In addition, the participants analyzed what had worked well for IC in the past and lessons learned.

# Product/Deliverable 4.5: By the end of the projects, at least one member of each Caribbean NGO (BNT and GJ) will have participated in their respective regional CEPF-CABI meetings in the Bahamas and Dominican Republic to share project experiences.

This activity was dependent on scheduling by CABI under the project 'Regional Networking and Strategy Development for Invasive Alien Species'. To our knowledge this meeting has not occurred.

#### Component 5 (as stated in the approved proposal)

*Component 5: Improved management of Alto Velo (within Jaragua National Park) and Booby Cay.* 

#### **12.** Describe the results from Component 5 and each product/deliverable

*Product/Deliverable 5.1: By the end of year 2, the BNT, Ministry of Environment and Housing, and IC collaborate to develop an action plan addressing management needs for Booby Cay.* 

The necessary actions were identified and discussed in a meeting held in late 2013. The key needs identified were the importance of establishing a biosecurity protocol and custom communication strategies for Mayaguana communities.

The actions identified were well in-line with the activities described in this grant: site visits, community outreach, meetings with local and national stakeholders, feasibility assessment and biosecurity planning, and a proposal for the national park. The declaration as a national park will trigger additional management steps, such as creation of plans to manage invasive species possibly including eradication projects and increased biosecurity activities.

*Product/Deliverable 5.2: By the end of year 2, GJ, Ministry of Environment and Natural Resources, and IC collaborate to develop an action plan to address IAV management on Alto Velo.* 

Through the collaboration between GJ, the Ministry of Environment and Natural Resources, and IC as well as the review of current management of Alto Velo, the following actions have identified as next steps:

- Information gathering to complete the operational and biosecurity plans for Alto Velo.
- Secure additional funding to implement the operational plan and complete eradications of invasive vertebrates from Alto Velo.
- Develop and implement an outreach and awareness campaign with the fishermen from local communities in the Jaragua National Park and some Haitian communities to ensure that the biosecurity measures are being applied.
- As part of the biosecurity plan, conduct surveillance visits to Alto Velo to prevent, detect and respond to any IAV incursion.

*Product/Deliverable 5.3: By the end of the project, IC, GJ, and BNT collaborate to develop a summary document listing lessons-learned and best practices regarding IAV eradication planning.* 

Island Conservation convened a meeting with representatives from GJ and BNT on August 25, with a total of six participants. The objectives of this meeting was to share project experiences, identify lessons learned, best practices and next steps. The group identified some key challenges that each partner organization encountered in the implementation of their respective responsibilities, and some key challenges (both within the project implementation period and anticipated for the projects' continuation) that were common themes across the projects. The notes from the meeting were compiled into a summary document and distributed to the attendees.

#### Component 6 (as stated in the approved proposal)

Component 6: Public outreach campaign designed and initiated to inform targeted audiences (e.g. media, government, Bahamas residents, international conservation agencies, and donors) of the conservation importance of Booby Cay and the case for making it a national park.

#### 13. Describe the results from Component 6 and each product/deliverable

*Product/Deliverable 6.1: By the end of the project, IC provides input to BNT in designing and developing communications strategies to increase public, government, and international support for legal protection of Booby Cay.* 

A draft communication plan was completed shortly after the workshop in June 2014 and was used by BNT to inform strategic decision-making regarding communication and outreach activities. The draft plan represented an ideal scenario, which was ultimately scaled back and adjusted to reflect logistic, time, and financial limitations.

The final strategy included meetings and education events, and a suite of communication tools designed to target a variety of audiences (see Product/Deliverable 6.2 and 6.3 for more detail).

Product/Deliverable 6.2: By the end of the project, IC consults with BNT on developing and implementing at least one proven communication tools (e.g. radio announcement, brochure, etc.) to be used by BNT.

IC and BNT collaborated on multiple communication tools designed to educate and build support for the protection of Booby Cay and the issue of invasive species on islands. IC led the creation of project fact sheet for public distribution which focused on the issue of invasive black rats on Booby Cay. BNT distributed approximately 200 fact sheets in May 2015. BNT led the creation of a petition on change.org that asked The Honorable Perry Gladstone Christie, Prime Minister and Minister of Finance, to declare Booby Cay as a national park. The petition's website was shared through social media and advertised in other communications materials. The petition helped bring attention to the need for a national park and received over 600 supporters.

BNT led the creation of a magnetic sticker to provide information on the cay, its threats, importance and directing people interested in taking action to contact BNT. Approximately 350 magnets were made and distributed in May 2015.

BNT led the creation of t-shirts featuring a line drawing of an iguana, with the words 'Booby Cay, Stronghold of the critically endangered Booby Cay Iguana also called Bartsch's Iguana' and the logos of IC, BNT and CEPF. These shirts were designed to increase awareness amongst the residents of Mayaguana, but also to create opportunities for BNT staff to engage with local residents and for the residents to engage with each other. One hundred forty shirts were distributed in July 2015

BNT led the creation and placement of two billboards that were placed on Mayaguana. The billboards are different but both describe the importance of protecting the cay and offer suggestions of what residents may do to assist. The billboards were installed in July 2015 near

the local government's office in Abraham's Bay and also at the runway in clear view of all passengers.

Distribution of physical communication materials occurred by making them available at the local Island Administrator's office, local Chief Councilor's office, the local Department of Marine Resources office, at meetings and education events, given to a high school science teacher to distribute at the two schools, and randomly while on route to various scheduled events.

Product/Deliverable 6.3: By the end of the project, BNT targets at least three audiences with educational outreach (e.g. newspaper article, presentations, or other communication tools) on project conservation value, restoration approach, and progress.

BNT targeted four primary audiences in the course of this project: government officials, the Mayaguana communities, school children on Mayaguana, and the conservation community. These audiences are not discrete, and outreach methods often reached multiple audiences. However, the content and strategy was adjusted as appropriate for the situation in which information was being presented.

National and local government officials were engaged in this project. BNT presented information on the cay, community and park declaration process in at least three meetings with national government officials and in at least three meetings with local government officials. Informational materials, such as project fact sheets, were also given at these meetings. Local and national officials also participated in the community meetings, including two that were hosted by the Member of Parliament for Mayaguana, and Minister of Agriculture and Marine Resources, the Honorable V. Alfred Gray.

In July 2015, BNT hosted an informational trip to Booby Cay with the island's newly appointed Island Administrator, Zephaniah Newbold, who had never visited the cay. This created an opportunity for BNT to engage fully with the Mr. Newbold and discuss the past and future of Booby Cay.

The Mayaguana community was reached in five official meetings held on Mayaguana and multiple informal meetings. The members of the Mayaguana communities showed strong interest and support for a national park in these meetings. The community was the primary audience for the magnets, t-shirts, and billboard. During a May 2015 visit, school children were targeted in two presentations given by the BNT education department, and teachers were given additional materials to share.

The conservation community was reached through the promotion of the change.org petition, social media posts by BNT and IC, and by a brief article in the June 2014 issue of CANARI and CEPF's *CAPACITÉ* newsletter.

#### Component 7 (as stated in the approved proposal)

Component 7: Funding plan developed for Booby Cay and Alto Velo post-project activities.

#### 14. Describe the results from Component 7 and each product/deliverable

*Product/Deliverable 7.1: By the middle of year 2, IC develops a funding plan in collaboration with BNT, GJ, government agencies (Ministries), and other NGOs.* 

#### *Product/Deliverable 7.1 is captured within 7.2 below.*

#### *Product/Deliverable 7.2: By the end of the project, at least four funding proposals are developed.*

During the course of this project, IC staff consulted with both project partners as well as officers in the Dominican Republic Ministry of Environment and Natural Resources and The Bahamas Ministry of Housing and Environment, to outline the step-wise activities required to continue progress toward completion of both projects and to identify potential funding sources that would be accessible to project partners.

In the Dominican Republic, an opportunity quickly arose within the period of this grant, to consider completion of IAV eradication from Alto Velo within a GEF-6 project under the Ministry of Environment and Natural Resources. IC worked closely with the Director of Biodiversity and his officers to develop a project concept entitled 'Reducing the Risk of Extinction of Vulnerable and Irreplaceable Species in the Dominican Republic: implementing the National Strategy of Invasive Alien Species, eradication of invasive alien species, and management of biosafety'. This was a larger project that addressed both national biosecurity needs and ecosystem restoration, and included: (1) prevention of invasive species introduction at the national level; (2) development of detection and rapid response mechanisms to address national biosecurity issues; (3) pilot projects on Isla Catalina, Alto Velo, and Alto Velito to demonstrate the effectiveness of eradication of invasive species for ecosystem restoration; and (4) improving awareness of invasive species issues through outreach and education. However, due to competing interests within the government, an alternative GEF-6 project was put forward. In spite of this, the government acknowledged the significant importance of the restoration of Alto Velo and encouraged us to consider developing a project concept for GEF-7 replenishment, 2018-2022. In addition, restoration funds for seabird restoration from the Deepwater Horizon oil spill is expected in the next few years, and Isla Alto Velo is recognized as a high priority site.

Given the significant effort directed at developing the GEF-6 project concept which would have fully-funded the completion of Alto Velo restoration, we have not yet submitted additional proposals for the continuation of the Alto Velo project. However, through discussions with Grupo Jaragua, we have identified as the next step for the project the completion of a comprehensive baseline monitoring of native and endemic biodiversity on Alto Velo so that species and ecosystem recovery can be measured post-eradication. This next step is appropriate for a smaller grant, and we intend to develop some proposals to support Grupo Jaragua to conduct this research.

In The Bahamas, IC and BNT developed proposals to continue to support the Booby Cay National Park establishment; however both proposals were declined. Two proposals for US \$25k each were submitted to the Disney Wild Animal Conservation Fund and the SeaWorld & Bush Gardens Conservation Fund to support the recruitment and development of conservation leaders resident on Mayaguana Island (adjacent to Booby Cay), which had been identified by both partners as the next critical step towards supporting the National Park. These conservation champions would educate fellow community members and other Bahamian organizations and citizens about Booby Cay Iguana conservation, the importance of designating Booby Cay as a National Park, and the benefits of implementing a rodent eradication project on the cay. It was anticipated that local conservation leaders would be better able to represent the value of the

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National Park to the Mayaguana community and thus the community would: (1) be integrated into the Park development, planning, and management; and (2) be supportive of biosecurity measures for Booby Cay to sustain the island as free of invasive vertebrates, thus providing long-term protection for the iguana. The work described in the proposals is still needed in order to secure community support for the Park, and we expect that BNT will seek the funding required once the Park is established.

#### Component 8 (as stated in the approved proposal)

*Component 8: Sub-grant to the Bahamas National Trust to design and implement a public outreach campaign to targeted audiences of the conservation importance of Booby Cay and the case for making it a national park.* 

#### 15. Describe the results from Component 8 and each product/deliverable

*Product/Deliverable 8.1: By the end of year 2, BNT drafts communication strategy to increase public, government, and international support for IAV removal and legal protection of Booby Cay which includes stakeholder meetings and school visits.* 

A draft communication plan was completed shortly after the workshop in June 2014, and was used by BNT to inform strategic decision regarding the communication and outreach activities. The plans represented an ideal scenario, and BNT managed the strategy to adapt to logistic changes, time, and financial limitations. The strategy that was implemented included meetings with various stakeholder, school visits, physical media, social media, and a visit to Booby Cay.

The activities achieved sufficient support to result in the protection of Booby Cay under the national park system in the Bahamas. The BNT publicly praised the Bahamian government in news outlets after the declaration. This strengthened the relationship with government stakeholders and helped draw additional attention and build more support in the public.

Product/Deliverable 8.2: By the end of year 2, BNT develops and implements at least one proven communication tool (e.g. radio announcement, advocacy poster or brochure, etc.). By the end of the grant term, BNT targets at least three audiences with educational outreach (e.g. newspaper article, presentations, or other communication tools) on project conservation value, restoration approach, and progress.

BNT developed and implemented four communication tools in addition to presentations given at various meetings and events. The communication and outreach efforts targeted four primary audiences. Please see the discussion of Product/Deliverable 6.2 and 6.3 for more detail on the tools and audiences.

#### Component 9(as stated in the approved proposal)

*Component 9: Sub-grant to Grupo Jaragua to increase ability and staff capacity to manage their land based on current scientific data and IAV removal best practices through a collaborative, multi-partner approach.* 

#### 16. Describe the results from Component 9 and each product/deliverable

*Product/Deliverable 9.1: By the end of year 1, GJ provides verbal input in Alto Velo management planning needs.* 

In 2013 and 2014, during Island Conservation's and GJ's ongoing information exchange, GJ provided the management needs for Alto Velo, and these were identified as next steps in the planning and implementation processes.

# *Product/Deliverable 9.2: By the end of year 2, GJ commits staff time to participate in local community and National Invasive Species Committee management planning meetings.*

Two GJ staff members developed and implemented a fishermen survey in local communities in the Jaragua National Park. One hundred fifteen people were surveyed over a period of two months, which helped to build relationships with local communities and created a level of awareness of IAV's impacts.

Yolanda Leon from GJ helped to coordinate and plan the meeting with National Invasive Species Committee conducted in September 2014. Yolanda provided an oral presentation of the fishermen survey results to which all of the attendees had the opportunity to provide feedback on.

*Product/Deliverable 9.3: By the end of the grant term, GJ provides written and verbal revisions on draft biosecurity and operational plans for IAV removal as part of Alto Velo management.* 

Written and verbal revisions of both plans were completed by GJ by August 2015 and provided to Island Conservation. We incorporated the revisions into the documents.

# 17. If you did not complete any component or deliverable, how did this affect the overall impact of the project?

Product/Deliverable 4.5: By the end of the projects, at least one member of each Caribbean NGO (BNT and GJ) will have participated in their respective regional CEPF-CABI meetings in the Bahamas and Dominican Republic to share project experiences.

GJ and BNT were unable to participate in a regional CABI-GEF meetings because they have not yet occurred. This likely reduced the impact of this project somewhat in regards to sharing information at a regional level. However, IC, GJ and BNT were able to share experiences at an inter-organizational level in our meeting held on August 25, 2015 and will continue look for opportunities to share experiences from this project.

# *Component 5: Improved management of Alto Velo (within Jaragua National Park) and Booby Cay.*

Although all of the deliverables listed under this component were addressed, the management has not fully improved. However, the identification of the needs and next steps to improve the island's management are a significant step in the process. Recognizing that IAV removal can be used as a conservation tool for the management of Alto Velo is another significant achievement. Given this, the final result for the component 5 will not impact the project overall.

Product/Deliverable 7.2: By the end of the project, at least four funding proposals are developed.

Although we submitted three funding proposals, we were not be able to secure additional funding for the implementation of either of the projects and post-project activities. This result does not affect directly the projects' overall results given that we were able to build capacity and develop appropriate plans. GJ, the Ministry, BNT, and IC are committed to continue raising funds to move forward with the projects and the additional next step to improve the islands' management.

# 18. Please describe and submit any tools, products, or methodologies that resulted from this project or contributed to the results

- Operational plan for the Restoration of Alto Velo, Invasive Alien Vertebrates Eradication Project
- Biosecurity plan for Alto Velo Island, Dominican Republic
- Feasibility Assessment for the Restoration of Booby Cay, the Bahamas Through the Eradication of Black Rats
- A Biosecurity Plan for Booby Cay (Mayaguana), the Bahamas
- Mayaguana Booby Cay National Park Proposal
- Booby Cay fact sheet
- Booby Cay billboards (2)
- Booby Cay magnetic sticker
- Booby Cay online petition
- Booby Cay t-shirt design
- Invasive Species Survey for Mayaguana

#### **CEPF Global Monitoring Data**

Respond to the questions and complete the tables below. If a question is not relevant to your project, please make an entry of 0 (zero) or n/a (not applicable).

# 19. Did your organization complete the CEPF Civil Society Tracking Tool (CSTT) at the beginning and end of your project? (Please be sure to submit the final CSTT tool to CEPF if you haven't already done so.)

	Date	Composite Score
Baseline CSTT	n/a	n/a
Final CSTT	September 30, 2015	94/100

# 20. List any vulnerable, endangered, or critically endangered species conserved due to your project

The national park declaration on Booby Cay protected the entirety of the habitat for the Critically Endangered Bartsch's Iguana (75 ha)

Given that the project on Alto Velo was focused on planning and capacity building and not covered implementation, no listed species benefited directly from the actions of this grant.

#### **Hectares Under Improved Management**

Project Results	Hectares*	Comments
21. Did your project strengthen the management of an existing protected area?	102	Alto Velo Island is part of the Jaragua National Park. Steps have been taken to evaluate its management and begin the improvement process; however, more is needed.
22. Did your project create a new protected area or expand an existing protected area?	75	Booby Cay National Park. Declared August 31, 2015. Legal designation as a national park. Booby Cay is part of the 2,400 ha Booby Cay KBA
23. Did your project strengthen the management of a key biodiversity area named in the CEPF Ecosystem Profile (hectares may be the same as questions above)	177	Alto Velo Island (102 ha) is part of the 169,400 ha Parque Nacional Jaragua KBA Booby Cay (75 ha) is part of the 2,400 ha Booby Cay KBA
24. Did your project improve the management of a production landscape for biodiversity conservation	N/A	N/A

\* Include total hectares from project inception to completion

25. In relation to the two questions above on protected areas, did your project complete a Management Effectiveness Tracking Tool (METT), or facilitate the completion of a METT by protected area authorities? If so, complete the table below. (Note that there will often be more than one METT for an individual protected area.)

An METT was not completed.

Protected area	Date of METT	Composite METT Score	Date of METT	Composite METT Score	Date of METT	Composite METT Score
n/a	n/a	n/a	n/a	n/a	n/a	n/a

# 26. List the name of any corridor (named in the Ecosystem Profile) in which you worked and how you contributed to its improved management, if applicable.

The Jaragua National Park is a Key Biodiversity Area (KBA) and is part of the Massif de la Selle corridor.

#### **Direct Beneficiaries: Training and Education**

Did your project provide training or education for	Male	Female	Total	Brief Description
27. Adults for community leadership or resource management positions	3	12	15	Totals from communications workshop with BNT, and training around site visit and feasibility assessments
28. Adults for livelihoods or increased income	0	0	0	
29. School-aged children	13	15	28	School educational programs on Mayaguana performed by BNT staff
30. Other				

## **31.** List the name and approximate population size of any "community" that benefited from the project.

*Community name, surrounding district, surrounding province, country Population size* 

There are three communities on the island and district of Mayaguana in the Bahamas, all within 15 minutes' drive of each other. The communities are Abraham's Bay, Pirate's Well and Betsy Bay. The total population of these communities is approximately 260 people.

#### **32.** Socioeconomic Benefits to Target Communities

Based on the list of communities above, write the name of the communities in the left column below. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes.

		Community Characteristics									Natu	re of So	cioecon	omic Be	enefit						
									Incre	ased ind	come du	ie to:	able		to				lal	ed	
Community Name	Small landowners	Subsistence economy	Indigenous/ ethnic peoples	Pastoralists / nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty line	Other	Adoption of sustainable natural resources management practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the adoption of sustainable fishing, hunting, or agricultural practices	More secure access to water resources	Improved tenure in land or other natural resource due titling, reduction of colonization, etc.	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure sources of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental management	More participatory decision-making due to strengthened civil society and governance	Other
Mayaguana Communities	x	х					х														х
Communities																					

If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit:

Mayaguana Communities - The residents of Mayaguana have received little tangible benefits to date beyond increased awareness, knowledge and opportunities to engage with their government representatives. The national park declaration may lead to future benefits by increasing ecotourism opportunities and park management activities.

#### Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community

## **33.** Project Design Process (aspects of the project design that contributed to its success/shortcomings)

- The time investment is significant to build capacity for technical eradications in organizations for whom invasive species management is not an organizational priority.
- Identification and inclusion of partners that can and must contribute in the project implementation is critical to a project's success.
- Ensure that the appropriate land manager/administrator is fully engaged for an IAV eradication project.
- Early, effective and ongoing communication is critical in designing sophisticated, multi-partner projects.
- There are some early deliverables for this grant that would have been best completed in the project design process. For example, if we had identified the capacity needs in the sub-grantee organizations while drafting the proposal we could have more specifically planned out our activities.
- Project design and contracts should recognize the need for adaptive management to maximize costand time-efficiency. This is especially needed where the outcome of one project component may influence a subsequent activity (e.g. field assessments), but is also important when independent activities influence the scheduling of project deliverables (e.g. grant deadlines, GEF processes).

# **34.** Project Implementation (aspects of the project execution that contributed to its success/shortcomings)

- Ensure the full commitment and availability of partners to achieve the grant deliverables.
- Acknowledge that all the partners involved in the project have heavy workloads, therefore frequent interaction to track the progress of products is vital.
- Interaction and involvement of fishermen from local communities that visit Alto Velo was a key action for future public outreach activities.
- Flexibility in scheduling and formats of interactions are needed at project sites that are distant from implementing agencies (IC, GJ, BNT), especially involving community interactions where schedules are not under the control of project implementers.
- Budgets should include allocations for language translations of project materials when projects are being completed in multiple languages. In multi-lingual regions such as the Caribbean, budgeting for translation can have value even in single language projects (e.g. IC and BNT working together), because some of the products serve as excellent example resources for projects that may be occurring in other languages.
- Requesting an extension is undesirable, but was a worthwhile choice because it allowed us to more successfully complete our objectives.
- We should have been more realistic in late 2014 and early 2015 when assessing our and our subgrantees' progress on project deliverables, and should have made the decision to request an

extension much sooner. More consistent and deliberate communications with the sub-grantees would have increased our ability to assess project progress and would have possibly prevented some of the delays.

• Roles and responsibilities within and across organizations were defined at the outset of this project. However, we've learned that the roles could have been better defined and that we should have had a process to address any changes in staffing or structure within the organizations involved. Changes in staffing resulted in some confusion and lack of clear responsibilities.

#### 35. Describe any other lessons learned relevant to the conservation community

- At the beginning, set and clarify expectations among the participants regarding availability and expected products.
- Acknowledge the capacity of the participants to achieve the project deliverables.
- Ensure that you will have the funding and staff time to complete the proposed project activities.
- Don't make commitments in aspects where the participants don't have experience and the products expected are beyond organizational scope.
- Project partners should expect changes in stakeholders, especially local leadership, over the course of multi-year projects. These changes, such as a change in the Island Administrator for Mayaguana, can present the challenge of lost momentum, but can also create opportunities to engage early and often, and to ensure new leadership is aware of and prioritizes key issues.

#### Sustainability / Replication

#### 36. Summarize the success or challenges in ensuring the project will be sustained or replicated

- DR Ministry is supportive of offshore island restoration work through IAV eradication.
- Increased awareness and capacity in local NGO's on IAV management on islands.
- Critical documents within the project planning process have been developed and act as key resources moving forward with the projects.
- Island Conservation used standardized methods and templates for operational planning, feasibility assessment and biosecurity planning. There is no international standard for these processes, but IC's tools and methods closely mirror those used by other institutions (such as the Pacific Invasives Initiative) for planning and implementing eradication projects.
- It is challenging to plan for biosecurity programs when no funding exists to implement them. In many cases, a biosecurity program would be a new spending item, and so resource managers have little control or optimism that any funding at all will be available. When planning for biosecurity, we recommend looking for opportunities to utilize local stakeholders, and to create volunteer opportunities.

# 37. Summarize any unplanned activities that are likely to result in increased sustainability or replicability

• Improvement of collaboration between GJ, other local NGO's and the DR Ministry in the management of Alto Velo.

- Development and implementation of an IAV impact outreach program in Jaragua National Park with focus on the fisher communities that visit Alto Velo.
- IC and BNT are exploring the possibility of hosting a similar communications workshop for another conservation issue (related to the parrot fish). We are pleased that the workshop in 2014 was well-received and there is interest in using the model again.
- Joe Wasilewski, a member of the IUCN Iguana Specialist Group (ISG), participated in the scoping trip to Booby Cay. In addition to collecting information on the iguanas and reptiles, his past experience visiting and working on the island contributed to our successful trip. IC and BNT benefit greatly from building relationships with members of the ISG (and the group as a hole) because there are many opportunities to protect iguanas in the Bahamas through projects to remove invasive species.

#### Safeguards

# 38. If not listed as a separate Project Component and described above, summarize the implementation of any required action related to social, environmental, or pest management safeguards

There were no required actions related to social, environmental or pest management safeguards for this project.

#### Additional Comments/Recommendations

## **39.** Use this space to provide any further comments or recommendations in relation to your project or CEPF

Island Conservation would like to thank the various people and organizations that were critical to the completion of this project, including but not limited to: Grupo Jaragua, Bahamas National Trust, The Ministry of Environment and Natural Resources in the Dominican Republic, The Ministry of Environment and Housing for the Bahamas, the BEST Commission, the IUCN Iguana Specialist Group, and the peoples and communities that live near and utilize Alto Velo Island and Booby Cay.

#### **Additional Funding**

## 40. Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of CEPF investment

Donor	Type of Funding*	Amount	Notes
Island Conservation	Project Co-Financing	\$67,084	Direct costs toward completion of project
DR Ministry of Environment and Natural Resources	Project Co-Financing	\$2,900	Costs associated with assisting with completion of this project

\* Categorize the type of funding as:

A Project Co-Financing (other donors or your organization contribute to the direct costs of this project)

- *B* Grantee and Partner Leveraging (other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF funded project)
- *C* Regional/Portfolio Leveraging (other donors make large investments in a region because of CEPF investment or successes related to this project)

#### Information Sharing and CEPF Policy

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, www.cepf.net, and publicized in our newsletter and other communications.

Please include your full contact details below:

- 41. Name: Wesley Jolley
- 42. Organization: Island Conservation
- 43. Mailing address: 2161 Delaware Ave. Ste A. Santa Cruz, CA 95060
- 44. Telephone number: 831-359-4787
- 45. E-mail address: wes.jolley@islandconservation.org