



**The Bahamas Protected Area Network
Management Effectiveness Evaluation Workshop**
July 22 – 24, 2014
Paradise Island, Bahamas



Report submitted by:



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I. EXECUTIVE SUMMARY

This report provides a summary, analysis and recommendations from the *Bahamas Protected Area Network Management Effectiveness Evaluation* workshop, held July 22 – 24, 2014 on Paradise Island in the Bahamas. The evaluation replicated the methodology of a 2009 baseline assessment of management effectiveness in order to measure progress over the last five years and chart a path forward to strengthen management at individual sites and across the network.

In 2014 the scope of the evaluation expanded from 27 to 31 protected areas (PAs). New sites include Crab Cay Marine Reserve, Fowl Cays National Park, Leon Levy Native Plant Preserve, and No Name Marine Reserve. Andros Reef Marine Park, assessed in 2009, was split into Andros Reef North Marine Park and Andros Reef South Marine Park. Conversely, the North Bimini Marine Reserve was excluded as this site has not yet been formally declared or gazetted.

Three “Master Excel Workbooks” were created to conduct the 2014 evaluation. In connection with this report, all master files have been provided to senior-level staff at the Bahamas Environment, Science and Technology Commission (BEST) and the Bahamas National Trust (BNT). Additionally, a “how to” document has been created for interested parties seeking to utilize the workbooks to further evaluate performance in the near or long-term future.

Workshop participants grouped in island clusters to evaluate the PAs or set of PAs for which they are most knowledgeable. Upon completing the evaluation, the whole group revisited and refined a list of priority topics to assess the current state of management effectiveness and then prioritize future planning and associated actions. In 2009 workshop participants identified ten key topics to guide priority actions. In 2014, the group narrowed the list to seven topics:

1. PA objectives
2. PA design
3. Management planning
4. Staffing
5. Infrastructure
6. Information and communication
7. Research and monitoring

Following full group discussion of key topics, each island cluster ranked the overall urgency of each topic relative to their respective PAs. The island groups then essentially asked “where do we want to be” and “how will we get there” in order to generate improvement thresholds, understand and document needed actions, and then brainstorm project concepts that will build professional competency and improve management.

Select findings of the 2014 management effectiveness evaluation include the following:

Protected Area Context

- Overall the network is most vulnerable to low law enforcement, easy access for illegal activities, difficulties monitoring illegal activities, and high market value of PA resources.

- Sites perceived to be facing the highest number of vulnerability factors include the Exuma Cays Land and Sea Park, South Berry Island Marine Reserve, No Name Cay Marine Reserve, Exuma (Jewfish) Cay Marine Reserve, Walker's Cay National Park, Crab Cay Marine Reserve, Harrold and Wilson Ponds National Park, and Conception Island National Park.
- Sites perceived to be facing the fewest vulnerability factors include Primeval Forest National Park, Inagua National Park, Leon Levy Native Plant Preserve, Black Sound Cay National Reserve, Hope Great House and Marine Farm, and the Retreat.
- Conflict with traditional practices represents the largest increase in vulnerability factors across all sites from 2009 to 2014.

Pressures and Threats

- The most pervasive and destructive past pressures and expected future threats include invasive species, development, climate change, and natural system modification.
- Sites perceived to be facing extreme increases in pressure/threat severity include Blue Holes National Park, Walker's Cay National Park, Crab Replenishment Reserve, Exuma Cays Land and Sea Park, South Berry Island Marine Reserve, and Clifton Heritage Park.
- Sites perceived to have seen a significant decrease in pressure/threat severity include Inagua National Park, Hope Great House and Marine Farm, the Retreat, Union Creek Reserve, Pelican Cay Land and Sea Park, and Conception Island National Park.
- Sites perceived to be facing the highest number of past pressures and expected future threats are South Berry Island Marine Reserve, Crab Cay Marine Reserve, No Name Cay Marine Reserve, Exuma (Jewfish) Cay Marine Reserve, Clifton Heritage Park, Walker's Cay National Park, Blue Holes National Park, and the Exuma Cays Land and Sea Park.

Management Effectiveness Across the Seven Key Topics

- Respondents believe that the PA network has realized overall improvement in most of the priority topics from 2009 to 2014, especially for PA objectives, management planning, and management outputs.
- Respondents perceived a decrease in management effectiveness in legal security, infrastructure, and decision-making.
- Blue Holes National Park showed significant improvement in overall management effectiveness from 2009 to 2014, whereas other sites are perceived to have experienced a decrease in overall management effectiveness. These included the Retreat, Union Creek Reserve, Moriah Harbour Cay National Park, South Berry Island Marine Reserve, Conception Island National Park, Clifton Heritage Park, Harrold and Wilson Ponds National Park, Lucayan National Park, and Bonefish Pond National Park.
- Respondents perceived PA objectives, legal security, PA design, and management decision making as the strongest management effectiveness indicators in 2014. Specific strengths include local community support, fair and effective conflict resolution with local communities, and ecologically appropriate PA sizes.
- Management effectiveness in 2014 was perceived as weakest in the areas of infrastructure and financing. Other major weaknesses include:
 - PA design does not anticipate changes under climate change scenarios.

- Management plans are not comprehensive, written and/or are relatively recent.
- Lack of a process for periodic updating of management plans.
- Insufficient budgets (past and future) for critical management activities.
- Inaccurate monitoring and documentation of illegal activity.
- Lack of monitoring and evaluation of biophysical, socioeconomic, and governance indicators.
- Lack of carrying capacity studies.
- Limited PA infrastructure.
- Insufficient management planning and active management generally.
- Limited ecological assessment of PAs.

Management Outcomes

- Based on respondent answers, the most well managed PAs are Exuma Cays Land and Sea Park, Abaco National Park, Rand Nature Centre, Leon Levy Native Plant Preserve, Lucayan National Park, and the Retreat.
- PAs that are perceived to be in most need of improved management include Moriah Harbour Cay National Park, Conception Island National Park, Hope Great House and Marine Farm, Harrold and Wilson Ponds National Park, No Name Cay Marine Reserve, South Berry Island Marine Reserve, Walker's Cay National Park, Tilloo Cay Reserve, and Little Inagua National Park.

Study Limitations

This report acknowledges limitations of the methodology used to conduct the management effectiveness evaluation of the Bahamas PA network. Specific limitations include the following:

- *Respondent bias.* While all attempts were made to ensure the most appropriate and knowledgeable respondents for each PA, evaluation results still reflect the perceptions and biases of those individual respondents.
- *Different respondents.* Connected to the above, the 2009 and 2014 workshops realized limited cross over attendance (i.e. the same participants), further highlighting the challenges associated with respondent bias.
- *Accuracy of responses.* Upon reviewing the 2009 evaluation results, some workshop participants questioned the accuracy of previous responses. Similarly, many 2014 responses may still require "groundtruthing" to ensure a high level of accuracy.
- *Limited diversity of workshop participants.* The 2014 evaluation realized participation largely from BNT staff and a few other conservation practitioners. As such, evaluation responses may require validation and refinement via collaboration with stakeholder interests such as fishermen, tour operators and local community groups among others.

Recommendations

The inherently complex set of circumstances surrounding PA development in the Bahamas warrants a set of distinct yet interrelated recommendations to guide future actions. The recommendations included in this report aim to further build individual competency and institutional capacity for improved management. (Interested parties are encouraged to review

the full description of the recommendations in section VII below). Key recommendations include the following:

- Utilize evaluation results to further explore current performance and inform future planning.
- Integrate individual PA evaluation results into annual work plan development.
- Consider development of simpler management effectiveness evaluation tools.
- Use workshop action planning as a springboard to advance programme/project development.
- Ensure cross-pollination of outputs from the evaluation and the recent IUCN workshops.
- Place renewed focus on development and implementation of sustainable finance plans.
- Prioritize development of a centralized research and monitoring programme.
- Re-visit PA design in the context of climate change.
- Build upon recent success to forge partnerships between managers and local communities.
- Design a press release or media tool kit to showcase PA management improvements.

Rich Wilson and Stephanie Horii of Seatone Consulting (Seatone) prepared this report.

II. BACKGROUND

In July 2014, a diverse group of resource conservation specialists, primarily staff from the BNT, collaborated to conduct a *Bahamas Protected Area Network Management Effectiveness Evaluation*. PA representatives from across the country gathered for a three-day workshop on centrally located Paradise Island. Participants revisited 2009 baseline management effectiveness evaluation results, conducted a rapid present-day assessment (evaluation)¹ and began utilizing results to inform future planning. The GEF Full Size Project, *Building a Sustainable National Network of Marine PAs (GEF-FSP)*, provided technical and financial support. Seatone, under contract with the BEST Commission, worked with Bahamian conservation leaders to design the workshop, facilitate the evaluation and prepare this report.

Bahamians have forged a robust yet still developing PA network over more than a half-century. The Exuma Cays Land and Sea Park, formally designated in 1958, is recognized as the first marine PA of its kind in the Wider Caribbean, perhaps the world. The network has rapidly evolved since the 1970s and today encompasses 27 national parks managed by BNT and 4 marine reserves under the jurisdiction of the Department of Marine Resources (DMR). As a member of the Caribbean Challenge, and a signatory to the Convention on Biological Diversity and SPAW Protocol, the Bahamas is steadily advancing toward the goal of setting aside 20% of its coastal and marine environment under protected status by 2020. Following several recent PA designations, the BNT continues to petition for protection of new sites around the country.

¹ In the context of measuring PA management effectiveness, the words “assessment” and “evaluation” are used interchangeably throughout this report.

Increasing the spatial scale of legally protected coastal and marine areas no doubt bodes well for Bahamian conservation efforts. Yet the greater challenge for resource managers remains the effective management of these PAs over time, particularly when facing challenging budget constraints and growing threats. For example, the recent *Status and Trends of Caribbean Coral Reefs: 1970-2012* starkly illustrates how Caribbean coral reef ecosystems, including in the Bahamas, have suffered massive losses from a range of human impacts since the 1980s.² In order to enhance resource management capacity and stem ecosystem degradation across the Bahamas PA network, the GEF-FSP has in recent years convened national-level trainings on biophysical monitoring, enforcement and management planning among other topics. The 2014 management effectiveness evaluation represents the latest installment in the training series.

III. CONCEPTUAL APPROACH

Management effectiveness evaluation is the degree to which management design, inputs, processes and outputs lead to achieving PA management goals and objectives. The World Commission on Protected Areas (WCPA) developed an evaluation framework³ that consists of six primary assessment elements. Guided by this framework, the first (baseline) assessment of the Bahamas PA network took place in 2009. The report from this workshop, *PA Effectiveness in the Bahamas: Establishing a Monitoring Baseline and Prioritizing Actions for Improvement*, describes the six elements:⁴

- **Context:** Includes indicators (e.g., vulnerability, threats) that describe actions and circumstances occurring in and around the PA that are largely beyond the control of PA staff;
- **Planning:** Includes indicators (e.g., legal security, PA objectives) that describe what PA management would like to achieve, and how it will achieve these objectives;
- **Inputs:** Includes indicators (e.g., funding, staffing, infrastructure) that describe what is needed in order to achieve the PA objectives;
- **Processes:** Includes indicators (e.g., management decision making) that describe how the PA will be managed;
- **Outputs:** Includes indicators (e.g., threat prevention, management intervention, education and outreach) that describe actions, products and services undertaken by staff; and
- **Outcomes:** Includes indicators (e.g., changes in biodiversity, reduction in threat levels) that describe what PA management achieved.

Participants in the baseline assessment utilized a questionnaire that merged three distinct yet similar methodologies, the (i) Rapid Assessment and Prioritization of Protected Area

² Jackson JBC, Donovan MK, Cramer KL, Lamm VV (editors). (2014) *Status and Trends of Caribbean Coral Reefs: 1970 – 2012*. Global Coral Reef Monitoring Network, IUCN, Gland, Switzerland.

³ Hockings, M., Stolton, S., Leverington, F., Dudley, N., and Courrau, J. (2006). *Evaluating Effectiveness: A framework for assessing management effectiveness of PAs*. 2nd edition. IUCN, Gland, Switzerland and Cambridge, U.K. xiv + 105 pp.

⁴ Report, authored by Dr. Jamison Ervin, Stacie Moultrie and Stacy Lubin-Gray, and submitted to the Bahamas government following the 2009 PA network management effectiveness evaluation.

Management methodology (RAPPAM); (ii) the World Bank/Worldwide Fund for Nature Management Effectiveness Tracking Tool; and (iii) the Management Effectiveness Tracking Tool (Marine METT). The assessment also integrated research and monitoring indicators from the *How is Your MPA Doing?* publication.⁵ The 2009 workshop report provides a robust and insightful look at the issues, performance challenges and management capacity development opportunities facing the Bahamas PA network at the time.⁶

Since 2009, a number of informal assessments of PA management effectiveness have taken place, however, each was limited in scope and none considered the entire network. Seatone and senior BEST/BNT staff (collectively, the project team) therefore decided that reapplication of the baseline methodology offered the best approach to demonstrate capacity development from 2009-2014 and guide future growth and evolution of the PA network. The methodology is based on application of a rapid assessment questionnaire of nearly 175 questions (indicators) that comprehensively explore the WCPA framework elements. Following this approach, the 2014 workshop aimed to:

- Introduce and orient PA staff to the purpose and benefits of management effectiveness evaluation;
- Integrate 2009 management effectiveness data and assess progress towards previous recommendations;
- Re-apply the Rapid Assessment and Prioritization of PA Management (RAPPAM) and Management Effectiveness Training Tool (METT) methodologies;
- Develop recommendations and action plans to advance priority management planning efforts across the Bahamas PA network.

The original questionnaire is constructed in a MS Excel spreadsheet. Formulas are used to aggregate responses and produce charts, graphs and other statistical analyses that illustrate management effectiveness, or lack thereof, at individual sites and across the network. In 2014 three “Master Excel Workbooks” were created that (i) incorporate all 2009 baseline data; (ii) allow for similar collection and aggregation of 2014 data, including new sites; and (iii) provide a comparative analysis of changes in management effectiveness from 2009 to 2014.

A pre-workshop invitation and introductory skype call with the workshop facilitator allowed participants (e.g. managers, wardens, conservation practitioners) to review the questionnaire, ask questions and gather needed information to complete the evaluation for their respective PAs. Unfortunately, only a small number of individuals present at the 2009 workshop attended in 2014. Most participants represented the younger generation of Bahamian professionals that is increasingly responsible for management of the Bahamas PA network.

⁵ Pomeroy, R.S., Parks, J.E., and Watson, L.M. (2004, reprinted 2007). *How is your MPA doing? A Guidebook of Natural and Social Indicators for Evaluating Marine PA Management Effectiveness*. IUCN, Gland, Switzerland and Cambridge, UK.

⁶ Interested parties are encouraged to reference the 2009 baseline in order to understand the background, context and findings that enabled measurement of capacity development across the network from 2009-2014.

The facilitator corresponded with the IUCN Regional Office for Mexico, Central America and the Caribbean (ORMACC) before the workshop and while preparing this report. The aim of the correspondence was to ensure synergy between parallel PA management planning efforts in the Bahamas. IUCN recently coordinated three workshops with BNT to review and reassign management categories⁷ to all PAs across the network. Results of this collaboration are expected to inform and overlap with recommendations provided in section VII of this report.

IV. WORKSHOP IMPLEMENTATION

The 2009 evaluation comprised 27 PAs across the country. In 2014 the scope of the evaluation expanded to include 31 sites. New PAs, representing a 2014 baseline, include Crab Cay Marine Reserve, Fowl Cays National Park, Leon Levy Native Plant Preserve, and No Name Marine Reserve. Andros Reef Marine Park, assessed in 2009, was split into Andros North and Andros South. Conversely, the group decided to exclude North Bimini Marine Reserve from the recent evaluation as this site has not yet been formally declared and gazetted as a PA.

Ms. Rochelle Newbold, National Project Coordinator of the GEF-FSP, opened the workshop and welcomed participants. She emphasized the importance of demonstrating to policymakers, the donor community and the wider public that active management is in place and evolving across the Bahamas PA network. She noted how the country is changing, threats are increasing, and thus PAs, and the people that manage these national treasures, need to adapt to achieve success over the long-term.

Ms. Newbold briefly highlighted the Bahamas PA Fund and pending opportunity of ongoing financial support for resource management programmes and projects. The current management effectiveness evaluation, she noted, will help identify priority needs across the network and thereby shape future management planning efforts. Results will position workshop participants to integrate newly developed project concepts into future work plans, then potentially acquire resources to support needed management actions.

Facilitator Rich Wilson (Seatone) reviewed the workshop objectives and agenda. He asked participants to describe why PA management effectiveness evaluation is important in the Bahamas. Responses centered on the following:

- Evaluate where the PA network is, where we are going, and then plan accordingly;
- Demonstrate whether or not BNT and DMR are meeting their management goals;
- Demonstrate progress for the donor community;
- Develop a plan/road map that leads to improved management performance;
- Identify funding priorities based on management needs;
- Utilize evaluation results to acquire new resources;
- Improve policy maker understanding of management processes and outcomes;
- Build peer-to-peer relationships and share information;

⁷ Dudley, N. (Editor) (2008). Guidelines for Applying PA Management Categories. Gland, Switzerland: IUCN. X + 86pp.

- Help improve day-to-day operations;
- Maintain accountability with the public.

At the outset of day 1, participants explored the history of PA development in the Bahamas, discussed the purpose and benefits of management planning, and learned about useful tools such as the Open Standards for the Practice of Conservation⁸ and IUCN PA management categories. After briefly discussing the 2009 effort, the following sequential steps guided the 2014 evaluation:

1. Respondents grouped in island clusters/associated PAs to fill out the questionnaire;
 - a. Senior BNT staff completed outlier sites (i.e. no available respondent)
 - b. DMR staff completed DMR sites
2. Respondents opened the 2009 (completed) and 2014 (to be completed) questionnaires;
3. Facilitator reviewed PPT slides that describe/guide participants through each section;
4. Facilitator stated each question and group discussed to ensure common understanding;
5. Respondent groups worked collaboratively, section by section, to answer all questions;
6. All participants submitted completed questionnaires to the facilitator;
7. Facilitator provided all final “master” files to the BEST Commission and BNT.

The group worked nearly two full days to complete the questionnaire. The assessment process took more time than originally planned for in the agenda. The paced effort, however, was necessary to ensure understanding of the WCPA framework elements and associated questions among all participants. On day 3, the group refined a previously identified list of priority topic areas in order to assess progress since 2009 and then prioritize future management planning. In 2009 workshop participants identified ten key topics to guide priority actions. In 2014, the group narrowed the list to seven topics:

1. PA objectives
2. PA design
3. Management planning
4. Staffing
5. Infrastructure
6. Information and communication
7. Research and monitoring

It is important to note that the issue of finance is conspicuously absent from this list. Bahamian conservation leaders understand well that development of sustainable finance plans and PA business plans is an integral component to building management capacity across the network. That said, the group collectively decided to put finance in “the parking lot” to provide time for young managers and wardens to explore other priority topics. Similarly, the group acknowledged the importance of threats and legal security for the network but saw limited value in exploring these issues in detail at this particular workshop. Finally, work plan development was removed from the list because managers across the network are now required to develop work plans on an annual basis.

⁸ The Open Standards are a product of the Conservation Measure Partnership (www.conservationmeasures.org).

V. COMPARATIVE RESULTS: 2009 – 2014

After the workshop, the project team coordinated to devise a standardized approach to present the cumulative 2014 management effectiveness evaluation results to show progress, or lack thereof, across the Bahamas PA network since the 2009 baseline assessment. Three sections below compare 2009 and 2014 questionnaire responses and describe the approach used to interpret collective results:

- Protected Area Context
- Protected Area Planning, Inputs, Processes and Outputs
- Protected Area Outcomes

As noted above, each island cluster group, or in some cases individuals, assessed PAs for which they are most knowledgeable. Participants did not rank PAs against each other. After completing the questionnaire, the group viewed overall responses across the network, discussed changes in management effectiveness since 2009 and brainstormed ways to build upon progress made. Important group discussion, focused on the seven priority topics listed above, is embedded in the statistical breakdown of responses below.

PROTECTED AREA CONTEXT

Sub-section: Ecological and Socioeconomic Importance of Individual PA Sites

Respondents considered 10 ecological and 10 socioeconomic factors for each PA. Responses then received scores to gauge biological or socioeconomic importance of each site. The highest possible score (HPS) is 30 for either ecological or socioeconomic importance.

- High: PAs with highest overall ecological or socioeconomic importance score (=21 to 30)
- Medium: PAs scoring in the middle range (=11 to 20)
- Low: PAs with lowest overall score (=0 to 10)

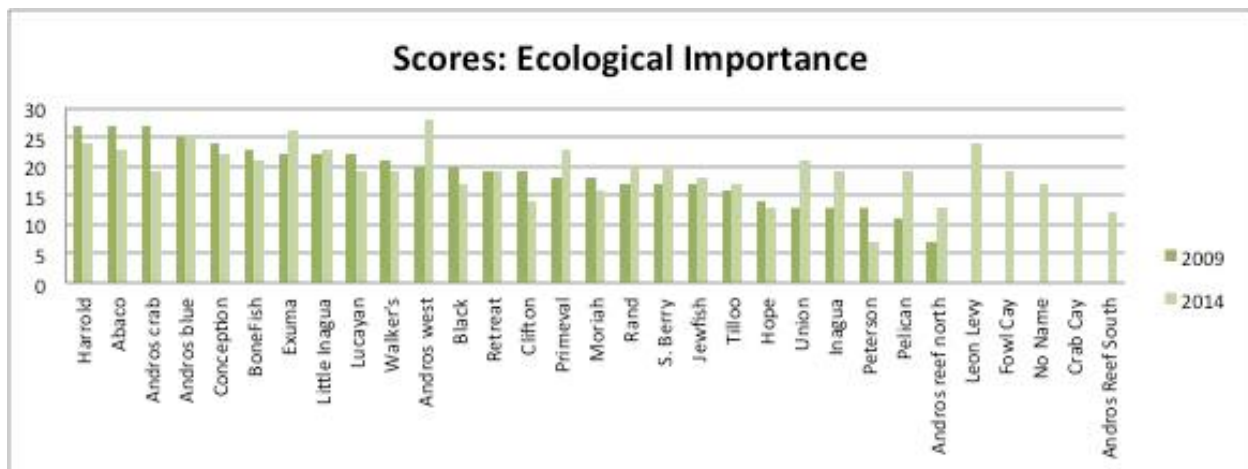
Ecological importance questions (indicators)

- ⇒ Does the PA contain a relatively high number of rare, threatened or endangered species?
- ⇒ Does the PA have relatively high levels of biodiversity?
- ⇒ Does the PA have a relatively high degree of endemism?
- ⇒ Does the PA provide a critical landscape function?
- ⇒ Does the PA contain the full range of plant and animal diversity?
- ⇒ Does the PA significantly contribute to the representativeness of the PA system?
- ⇒ Does the PA sustain minimum viable populations of key species?
- ⇒ Is the structural diversity of the PA consistent with historic norms?
- ⇒ Does the PA include ecosystems whose historic ranges have been greatly diminished?
- ⇒ Does the PA maintain the full range of natural processes and disturbance regimes?

Socioeconomic importance questions (indicators)

- ⇒ Is the PA an important source of employment for local communities?
- ⇒ Do local communities depend upon the PA resources for their subsistence?

- ⇒ Does the PA provide community development opportunities through sustainable resource use?
- ⇒ Does the PA have religious or spiritual significance?
- ⇒ Does the PA have unusual features of aesthetic importance?
- ⇒ Does the PA contain plant species of high social, cultural or economic importance?
- ⇒ Does the PA contain animal species of high social, cultural or economic importance?
- ⇒ Does the PA have a high recreational value?
- ⇒ Does the PA contribute significant ecosystem services and benefits to communities?
- ⇒ Does the PA have a high educational and/or scientific value?



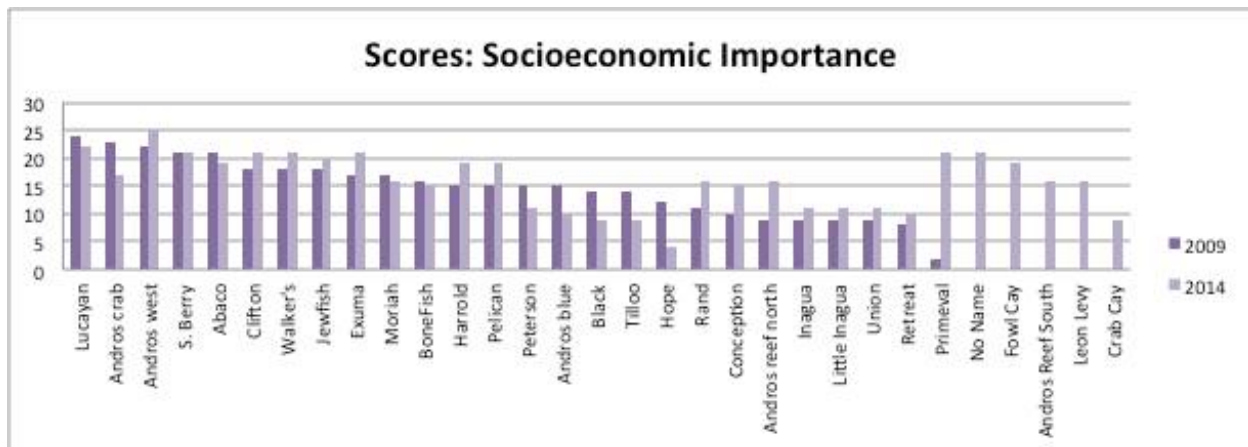
Ecological Importance (2014) of Individual PAs (*2014 baseline sites)

- High: Andros West Side National Park, Exuma Cays Land and Sea Park, Andros Blue Holes National Park, Harrold and Wilson Pond National Park, Leon Levy Native Plant Preserve*, Abaco National Park, Little Inagua National Park, Primeval Forest National Park, Conception Island National Park, Bonefish Pond National Park, Union Creek Reserve
- Medium: Rand Nature Centre Nature Centre, South Berry Islands Marine Reserve, Andros Crab Replenishment Park, Lucayan National Park, Walker's National Park, The Retreat, Inagua National Park, Pelican Cays Land and Sea Park, Fowl Cays National Park*, Exuma (Jewfish) Cay Marine Reserve, Black Sound Cay Reserve, Tilloo Cay Reserve, No Name Cay Marine Reserve*, Moriah Harbour Cay National Park, Crab Cay Marine Reserve*, Clifton Heritage Park, Hope Great House and Marine Farm, Andros North Marine Park, Andros South Marine Park*
- Low: Peterson Cay National Park

Perceived Change in Ecological Importance (2009-2014) of Individual PAs

- Increase: Andros West Side National Park, Union Creek Reserve, Pelican Cays Land and Sea Park, Inagua, Andros North Marine Park, Primeval Forest National Park, Exuma Cays Land and Sea Park, Rand Nature Centre, South Berry Islands Marine Reserve, Jewish, Tilloo Cay Reserve
- No Change: Andros Blue Holes National Park, The Retreat

- Decrease: Hope Great House and Marine Farm, Conception Island National Park, Bonefish Pond National Park, Walker's National Park, Moriah Harbour Cay National Park, Harrold and Wilson Pond National Park, Lucayan National Park, Black Sound Cay Reserve, Abaco National Park, Clifton Heritage Park, Peterson Cay National Park, Andros Crab Replenishment Park



Socioeconomic Importance (2014) of Individual PAs (*2014 baseline sites)

- High: Andros West Side National Park, Lucayan National Park, South Berry Islands Marine Reserve, Clifton Heritage Park, Walker's National Park, Exuma Cays Land and Sea Park, Primeval Forest National Park, No Name Cay Marine Reserve*
- Medium: Exuma (Jewfish) Cay Marine Reserve, Abaco National Park, Harrold and Wilson Pond National Park, Pelican Cays Land and Sea Park, Fowl Cays National Park*, Andros Crab Replenishment Park, Moriah Harbour Cay National Park, Rand Nature Centre, Andros North Marine Park, Andros South Marine Park*, Leon Levy Native Plant Preserve*, Bonefish Pond National Park, Conception Island National Park, Peterson Cay National Park, Inagua National Park, Little Inagua, Union Creek Reserve
- Low: Andros Blue Holes National Park, The Retreat, Black Sound Cay Reserve, Tilloo Cay Reserve, Crab Cay Marine Reserve*, Hope Great House and Marine Farm

Perceived Change in Socioeconomic Importance (2009-2014) of Individual PAs

- Increase: Primeval Forest National Park, Andros North Marine Park, Rand Nature Centre, Conception Island National Park, Exuma Cays Land and Sea Park, Harrold and Wilson Pond National Park, Pelican Cays Land and Sea Park, Andros West Side National Park, Clifton Heritage Park, Walker's National Park, Exuma (Jewfish) Cay Marine Reserve, Inagua National Park, Little Inagua National Park, Union Creek Reserve, The Retreat
- No Change: South Berry Islands Marine Reserve
- Decrease: Moriah Harbour Cay National Park, Bonefish Pond National Park, Lucayan National Park, Abaco National Park, Peterson Cay National Park, Andros Blue Holes National Park, Black Sound Cay Reserve, Tilloo Cay Reserve, Andros Crab Replenishment Park, Hope Great House and Marine Farm

Subsection: Vulnerability

Respondents evaluated 10 elements that affect overall PA vulnerability. For each element, a statistical breakdown shows 2009 and 2014 responses and the perceived change in vulnerability over the five-year period between assessments. Each site then received a score, based on its responses, to estimate the overall vulnerability. The highest possible score (HPS) is 30 (i.e., 'yes' responses to all 10 vulnerability elements).

Measuring Changes in Vulnerability

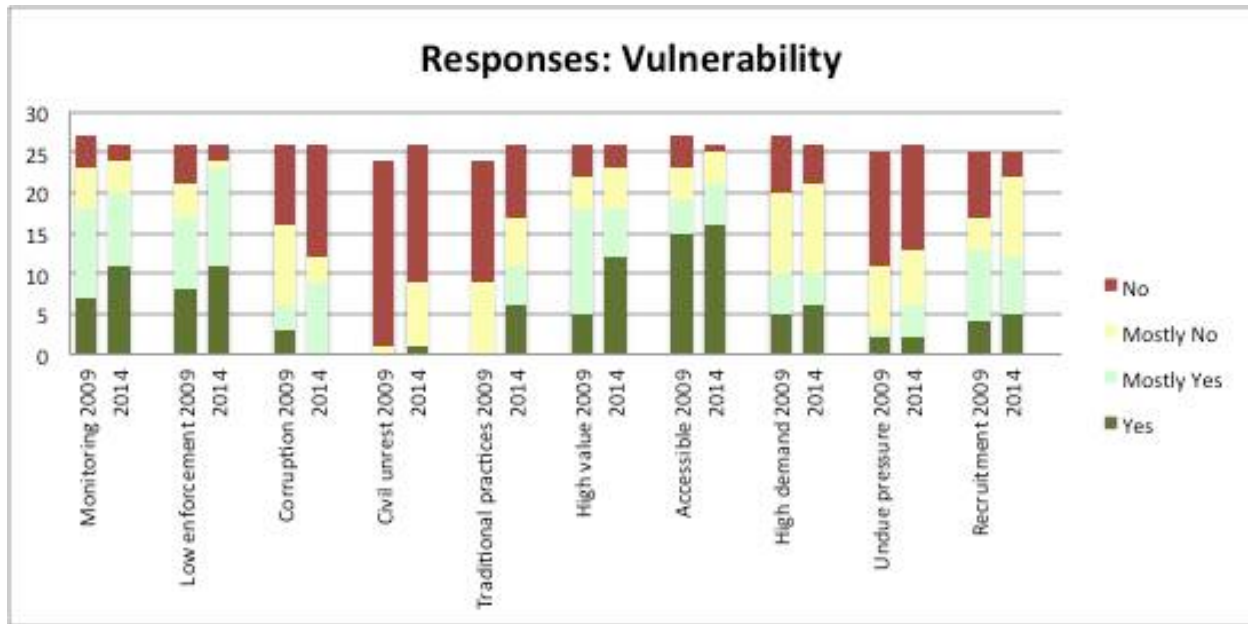
- Significant increase: greater than 30% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Modest increase: 10% - 30% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Slight increase: 1% - 10% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- No increase: 0% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Decrease in vulnerability: Any increase in the number of PAs whose responses changed from 'yes' or 'mostly yes' to 'no' or 'mostly no'
- Note: A "high incidence of vulnerability" means at least half of assessed PAs responded 'mostly yes' or 'yes' to the question (indicator)

Vulnerability of Individual PA Sites in 2014

- High: PAs with the highest overall vulnerability (=21 to 30)
- Medium: PAs scored in the middle range (=11 to 20)
- Low: PAs with the lowest overall vulnerability (=0 to 10)

Questions (elements)

- ⇒ Are illegal activities within the PA difficult to monitor?
- ⇒ Is law enforcement low in the region?
- ⇒ Are bribery and corruption common throughout the region?
- ⇒ Is the area experiencing civil unrest and/or political instability?
- ⇒ Do cultural practices, beliefs and traditional uses conflict with the PA objectives?
- ⇒ Is the market value of PA resources high?
- ⇒ Is the area easily accessible for illegal activities?
- ⇒ Is there a strong demand for vulnerable PA resources?
- ⇒ Is the PA manager under undue pressure to exploit the PA resources?
- ⇒ Is recruitment and retention of employees difficult?



Statistical Breakdown of Responses

Are illegal activities within the PA difficult to monitor?

- 2009 responses: 18 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 4 PAs responded 'no' (high incidence of vulnerability)
- 2014 responses: 20 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 2 PAs responded 'no' (high incidence of vulnerability)
- Vulnerability change (2009-2014): Modest increase. 10.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is law enforcement low in the region?

- 2009 responses: 17 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 5 PAs responded 'no' (high incidence of vulnerability)
- 2014 responses: 23 of 26 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 2 PAs responded 'no' (high incidence of vulnerability)
- Vulnerability change (2009-2014): Modest increase. 23.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Are bribery and corruption common throughout the region?

- 2009 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 10 PAs responded 'no'
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 14 PAs responded 'no'
- Vulnerability change (2009-2014): Modest increase. 11.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is the area experiencing civil unrest and/or political instability?

- 2009 responses: 0 of 24 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 23 PAs responded 'no'
- 2014 responses: 1 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 17 PAs responded 'no'
- Vulnerability change (2009-2014): Slight increase. 3.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Do cultural practices, beliefs and traditional uses conflict with the PA objectives?

- 2009 responses: 0 of 24 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 15 PAs responded 'no'
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 9 PAs responded 'no'
- Vulnerability change (2009-2014): Significant increase. 42.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is the market value of PA resources high?

- 2009 responses: 18 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 4 PAs responded 'no' (high incidence of vulnerability)
- 2014 responses: 18 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 3 PAs responded 'no' (high incidence of vulnerability)
- Vulnerability change (2009-2014): No increase. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is the area easily accessible for illegal activities?

- 2009 responses: 19 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 4 PAs responded 'no' (high incidence of vulnerability)
- 2014 responses: 21 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 1 PA responded 'no' (high incidence of vulnerability)
- Vulnerability change (2009-2014): Modest increase. 10.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is there a strong demand for vulnerable PA resources?

- 2009 responses: 10 of 27 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 7 PAs responded 'no'
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 5 PAs responded 'no'
- Vulnerability change (2009-2014): Slight increase. 1.42% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

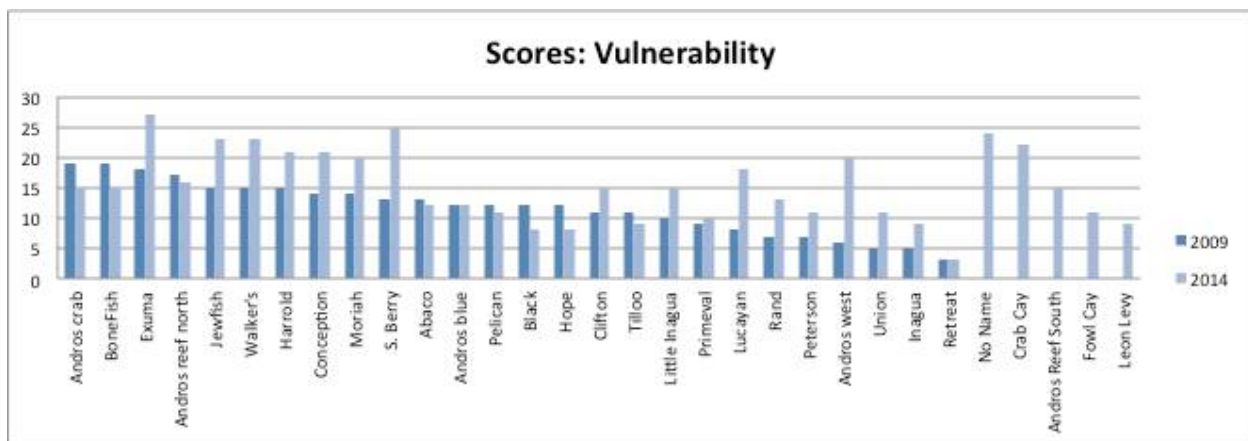
Is the PA manager under undue pressure to exploit the PA resources?

- 2009 responses: 3 of 25 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 14 PAs responded 'no'

- 2014 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 13 PAs responded 'no'
- Vulnerability change (2009-2014): Modest increase. 11.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is recruitment and retention of employees difficult?

- 2009 responses: 13 of 25 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 8 PAs responded 'no' (high incidence of vulnerability)
- 2014 responses: 12 of 25 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 3 PAs responded 'no'
- Vulnerability change (2009-2014): Decrease in vulnerability. -4.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'



Vulnerability of Individual PA Sites (*2014 baseline sites)

- High: Exuma Cays Land and Sea Park, South Berry Islands Marine Reserve, No Name Cay Marine Reserve*, Exuma (Jewfish) Cay Marine Reserve, Walker's National Park, Crab Cay Marine Reserve*, Harrold and Wilson Pond National Park, Conception Island National Park
- Medium: Moriah Harbour Cay National Park, Andros West Side National Park, Lucayan National Park, Andros North Marine Park, Andros Crab Replenishment Park, Bonefish Pond National Park, Clifton Heritage Park, Little Inagua National Park, Andros South Marine Park*, Rand Nature Centre, Abaco National Park, Andros Blue Holes National Park, Pelican Cays Land and Sea Park, Peterson Cay National Park, Union Creek Reserve, Fowl Cays National Park*
- Low: Primeval Forest National Park, Tilloo Cay Reserve, Inagua National Park, Leon Levy Native Plant Preserve*, Black Sound Cay Reserve, Hope Great House and Marine Farm, The Retreat

Perceived Changes in Vulnerability (2009-2014) of Individual PA Sites

- Increase: Andros West Side National Park, South Berry Islands Marine Reserve, Lucayan National Park, Exuma Cays Land and Sea Park, Exuma (Jewfish) Cay Marine Reserve, Walker's National Park, Conception Island National Park, Union Creek Reserve, Rand

Nature Centre, Moriah Harbour Cay National Park, Harrold and Wilson Pond National Park, Little Inagua National Park, Inagua National Park, Peterson Cay National Park, Clifton Heritage Park, Primeval Forest National Park

- No change: Andros Blue Holes National Park
- Decrease: Andros Crab Replenishment Park, Bonefish Pond National Park, Tilloo Cay Reserve, Andros North Marine Park, Abaco National Park, Pelican Cays Land and Sea Park

Subsection: Landscape/Seascape Planning and Protected Area Benefits

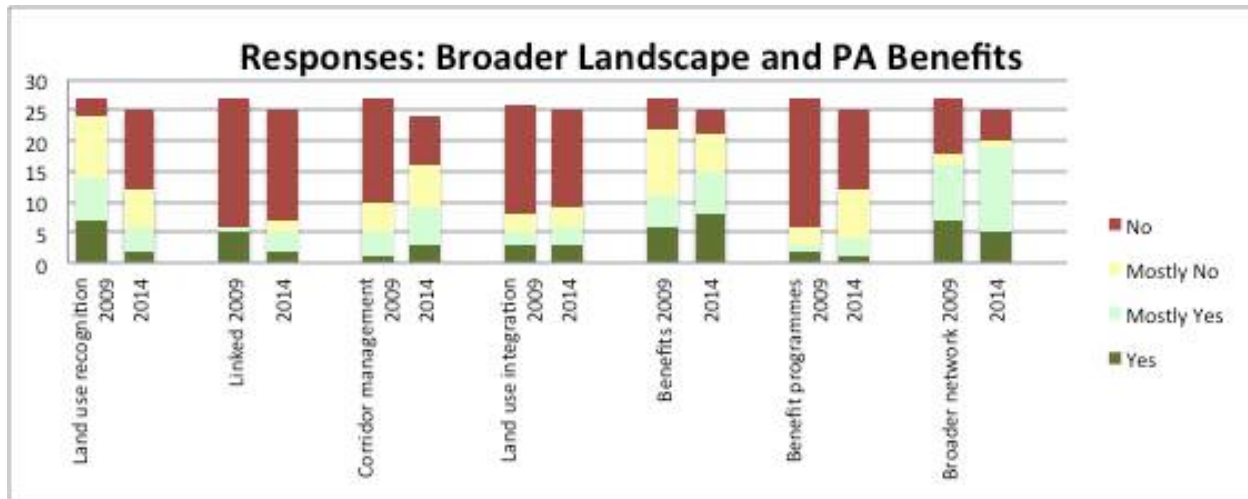
Respondents evaluated 8 elements that focus on the degree to which PAs are linked to the broader landscape. For each element, a statistical breakdown shows 2009 and 2014 responses, and measured progress in landscape linkages over the five-year period between assessments.

Measuring Landscape/Seascape Linkages

- Significant improvement: greater than 30% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Modest improvement: 10% - 30% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Slight improvement: 1% - 10% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- No improvement: 0% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Decrease in landscape/seascape linkages: Any increase in the number of PAs whose responses changed from 'yes' or 'mostly yes' to 'no' or 'mostly no'
- Note: A "high incidence of 'no' responses" means at least half of the PAs responded 'no' to the indicator question (does not include 'mostly no' responses)

Questions (indicators)

- ⇒ Does land and water use planning recognize the PA and aid the achievement of PA objectives?
- ⇒ Is the PA linked to another protected or otherwise conserved area?
- ⇒ Does the management of corridors provide for wildlife passage to key habitats?
- ⇒ Is the PA integrated into a larger land/sea use management plan?
- ⇒ Does the PA provide economic benefits to local communities?
- ⇒ Are there programmes implemented to enhance community welfare, while conserving PA resources?
- ⇒ Is the PA part of a network that is managed to collectively sustain larger ecosystem functions?



Statistical Breakdown of Responses

Does land and water use planning recognize the PA and aid the achievement of PA objectives?

- 2009 responses: 14 of 27 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 3 PAs responded 'no'
- 2014 responses: 6 of 25 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 13 PAs responded 'no' (high incidence of 'no' responses)
- Landscape linkage progress (2009-2014): Decrease in landscape linkages. -27.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is the PA linked to another protected or otherwise conserved area?

- 2009 responses: 6 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 21 PAs responded 'no' (high incidence of 'no' responses)
- 2014 responses: 5 of 25 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 18 PAs responded 'no' (high incidence of 'no' responses)
- Landscape linkage progress (2009-2014): Decrease in landscape linkages. -2.2% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Does the management of corridors provide for wildlife passage to key habitats?

- 2009 responses: 5 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 17 PAs responded 'no' (high incidence of 'no' responses)
- 2014 responses: 9 of 24 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 8 PAs responded 'no'
- Landscape linkage progress (2009-2014): Modest improvement. 19.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is the PA integrated into a larger land/sea use management plan?

- 2009 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 18 PAs responded 'no' (high incidence of 'no' responses)

- 2014 responses: 6 of 25 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 16 PAs responded 'no' (high incidence of 'no' responses)
- Landscape linkage progress (2009-2014): Slight improvement. 4.8% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Does the PA provide economic benefits to local communities?

- 2009 responses: 11 of 27 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 5 PAs responded 'no'
- 2014 responses: 15 of 25 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 4 PAs responded 'no'
- Landscape linkage progress (2009-2014): Modest improvement. 19.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Are there programmes implemented to enhance community welfare, while conserving PA resources?

- 2009 responses: 3 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 21 PAs responded 'no' (high incidence of 'no' responses)
- 2014 responses: 4 of 25 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 13 PAs responded 'no' (high incidence of 'no' responses)
- Landscape linkage progress (2009-2014): Slight improvement. 4.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Is the PA part of a network that is managed to collectively sustain larger ecosystem functions?

- 2009 responses: 16 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 9 PAs responded 'no'
- 2014 responses: 19 of 25 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 5 PAs responded 'no'
- Landscape linkage progress (2009-2014): Modest improvement. 16.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Subsection: Pressures and Threats

Respondents assessed 49 specific pressures/threats, which were classified into 12 major issue groups. For this assessment, a "pressure" is a human activity that has already negatively impacted biodiversity within a PA. A "threat" is a human activity that will likely continue or will start impacting biodiversity.

For each pressure/threat, respondents assessed the level of the activity, the spatial extent, the impact level, and the temporal impact (permanence) within a PA. Each activity was then scored (based on extent, impact, and permanence) to gauge the severity of the pressure/threat. The highest possible score (HPS) for each pressure/threat activity is 64, which would translate as an activity that is causing severe and permanent damage in at least half of the PA.

The HPS for each pressure/threat issue group varies depending on the number of specific pressures/threats classified in the group. For example, the HPS for pollution is 448 (Seven

pressures/threats categorized as a pollution pressure/threat). The subsequent graphs and statistical breakdowns show 2014 responses and apply the following measurement criteria:

Severity of Pressures/Threats

- High: PAs with the highest score (>75% of the highest possible score, or HPS)
- Medium high: PAs scoring in the upper-middle range (51-75% of the HPS)
- Medium low: PAs scoring in the lower-middle range (26-50% of the HPS)
- Low: PAs with the lowest score (<26% of the HPS)
- Note: For conciseness, results omit listing sites with low scores, unless stated otherwise

Severity of Issues Across All PA Sites

No issue scored more than 30% of the total possible score. Therefore, results identify the highest scoring issues among all 12 issues.

Measuring Change (2009-2014) in Severity for Each PA Site

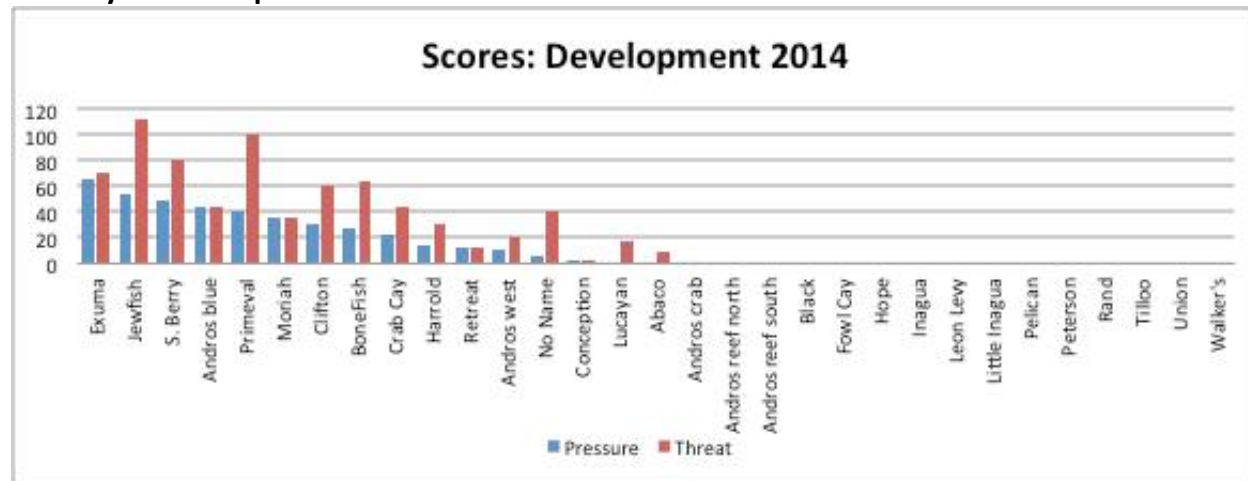
- Extreme increase: PA site experienced more than 100% increase in severity for all pressures and threats
- Significant increase: PA site experienced 50-100% increase in severity
- Modest increase: PA site experienced 0-49% increase in severity
- Modest decrease: PA site experienced 0-49% decrease in severity
- Significant decrease: PA site experienced 50-100% decrease in severity

Sub-section: Development

Specific Pressures/Threats:

- ⇒ Housing development
- ⇒ Commercial development
- ⇒ Tourism infrastructure

Severity of Development Pressures and Threats



Major Results for Development Pressures/Threats

2014 – Past Pressures

- Medium low: Three PA sites had medium-low severity scores (Exuma Cays Land and Sea Park, Exuma (Jewfish) Cay Marine Reserve, and South Berry)

2014 – Future Threats

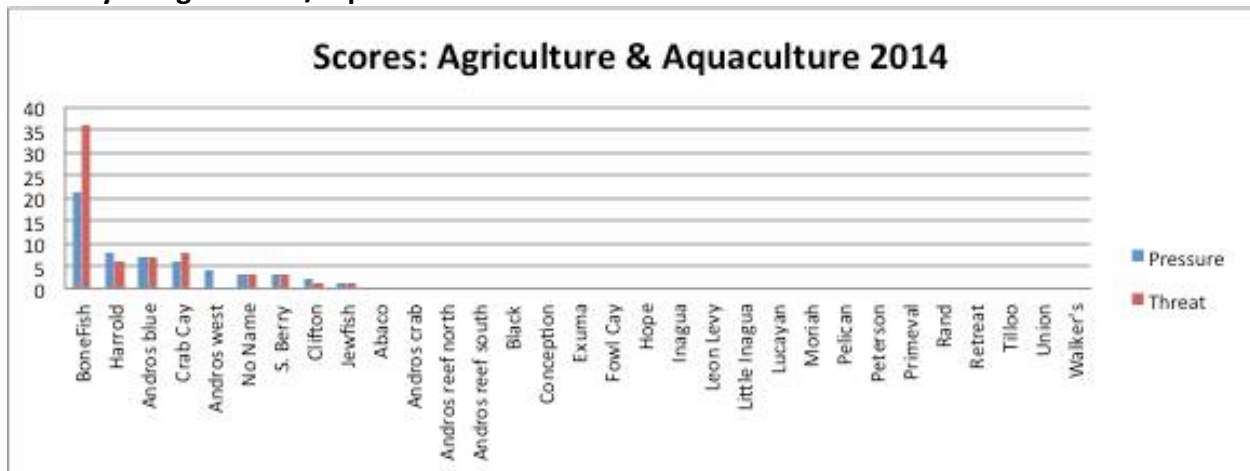
- Medium high: Two PA sites had medium-high severity scores (Exuma (Jewfish) Cay Marine Reserve and Primeval Forest National Park).
- Medium low: Four PA sites had medium-low severity scores (South Berry, Exuma Cays Land and Sea Park, Bonefish Pond National Park, and Clifton Heritage Park)

Sub-section: Agriculture and Aquaculture

Specific Pressures/Threats:

- ⇒ Crop cultivation
- ⇒ Pulp plantation
- ⇒ Livestock and grazing
- ⇒ Aquaculture

Severity of Agriculture/Aquaculture Pressures and Threats



Major Results for Agriculture and Aquaculture Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- Bonefish Pond National Park realized the highest score (score = 21)

2014 Future Threats

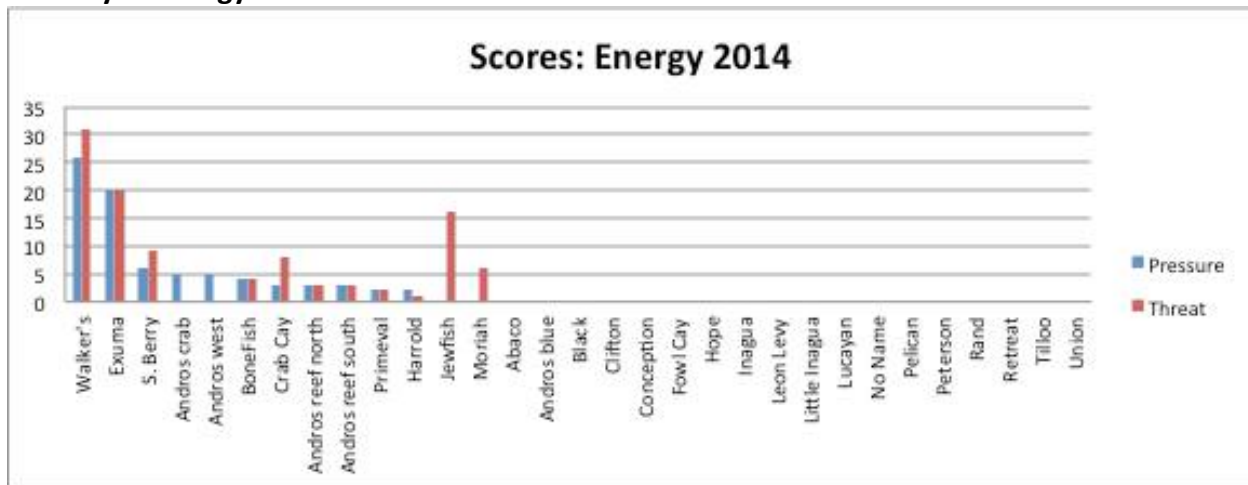
- Low: All PA sites had low severity scores
- Bonefish Pond National Park realized the highest score (score = 36)

Sub-section: Energy

Specific Pressures/Threats

- ⇒ Oil and/or gas drilling
- ⇒ Mining and quarrying
- ⇒ Energy generation

Severity of Energy Pressures and Threats



Major Results for Energy Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- Walker's National Park realized the highest score (score = 26)

2014 Future Threats

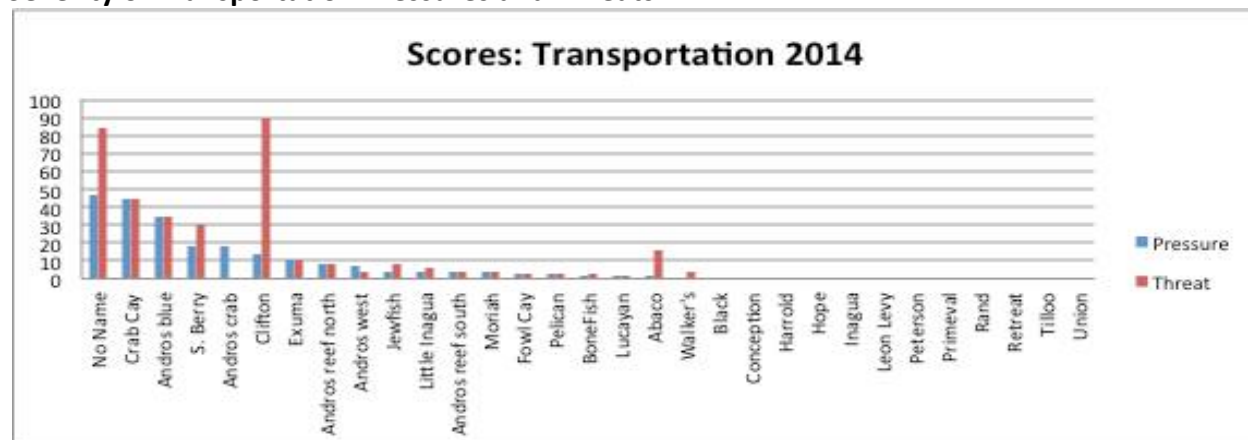
- Low: All PA sites had Low severity scores
- Walker's National Park realized the highest score (score = 31)

Sub-section: Transportation

Specific Pressures/Threats:

- ⇒ Roads and railroads
- ⇒ Utility and service lines
- ⇒ Shipping lanes
- ⇒ Flight paths

Severity of Transportation Pressures and Threats



Major Results for Transportation Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- No Name Cay Marine Reserve realized the highest score (score = 47)

2014 Future Threats

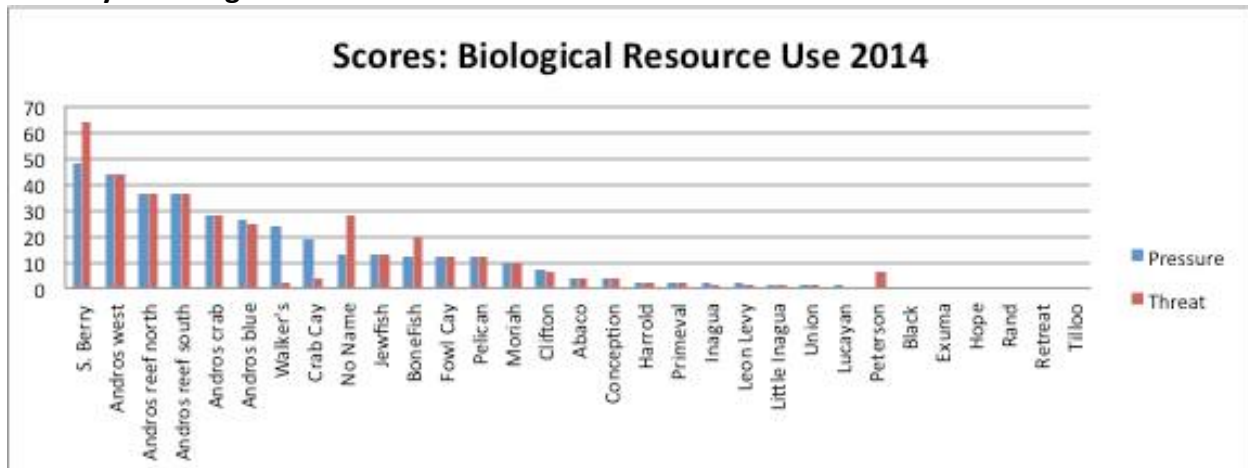
- Medium low: Two PA sites had medium low severity scores (Clifton Heritage Park and No Name Cay Marine Reserve)

Sub-section: Biological Resource Use

Specific Pressures/Threats:

- ⇒ Hunting and killing
- ⇒ Non-timber forest products
- ⇒ Logging
- ⇒ Fishing

Severity of Biological Resource Use Pressures and Threats



Major Results for Biological Resource Use Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- South Berry Islands Marine Reserve realized the highest score (score = 48)

2014 Future Threats

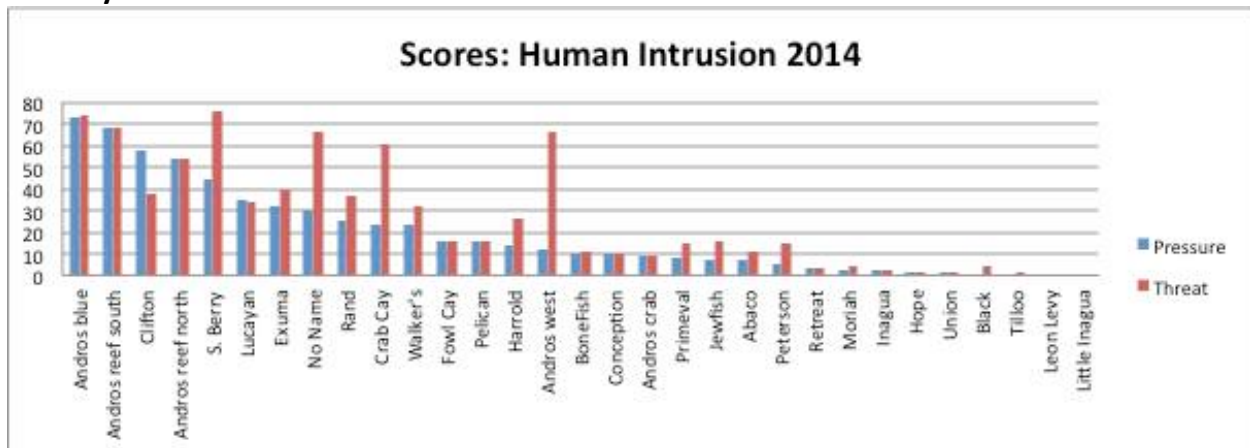
- Medium low: One PA site had a medium low severity score (South Berry Islands Marine Reserve)

Sub-section: Human Intrusions

Specific Pressures/Threats:

- ⇒ Recreation and tourism
- ⇒ War, civil unrest
- ⇒ Research activities
- ⇒ Management activities
- ⇒ Vandalism

Severity of Human Intrusion Pressures and Threats



Major Results for Human Intrusion Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- Andros Blue Holes National Park realized the highest score (score = 73)

2014 Future Threats

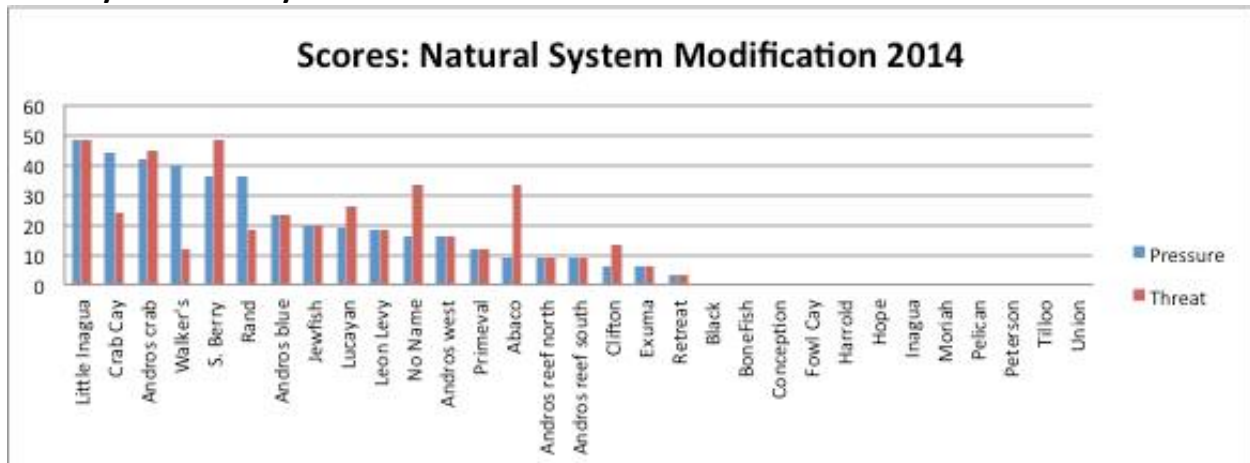
- Low: All PA sites had low severity scores
- South Berry Islands Marine Reserve realized the highest score (score = 76)

Sub-section: Natural System Modification

Specific Pressures/Threats:

- ⇒ Fire and fire suppression
- ⇒ Dams, hydrological modification
- ⇒ Fragmentation
- ⇒ Isolation
- ⇒ Other edge effects
- ⇒ Loss of keystone species

Severity of Natural System Modification Pressures and Threats



Major Results for Natural System Modification Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- Little Inagua National Park realized the highest score (score = 48)

2014 Future Threats

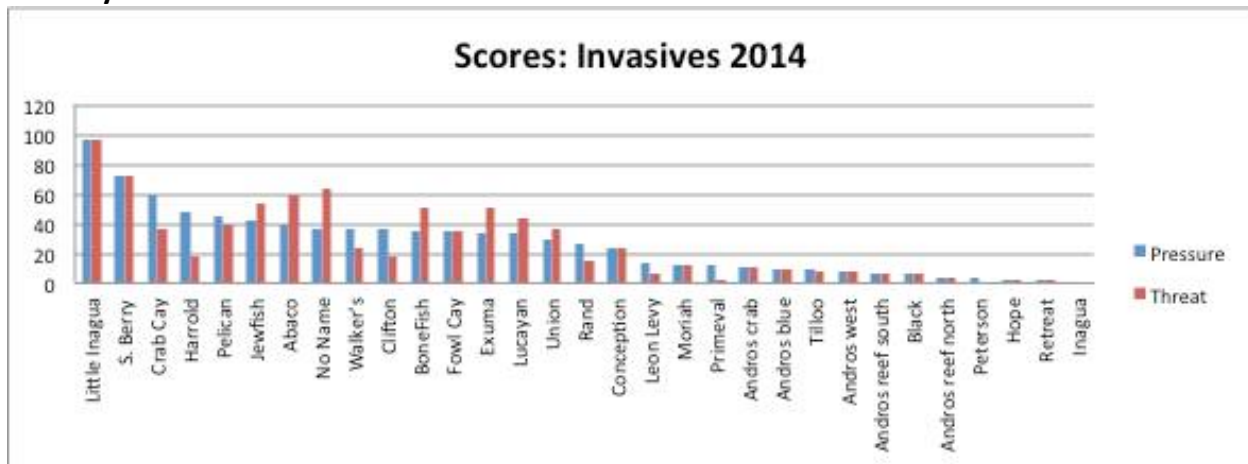
- Low: All PA sites had low severity scores
- Little Inagua National Park realized the highest score (score = 48)

Sub-section: Invasives

Specific Pressures/Threats:

- ⇒ Invasive plants
- ⇒ Invasive animals
- ⇒ Pathogens

Severity of Invasive Pressures Threats



Major Results for Invasive Pressures/Threats

2014 Past Pressures

- Medium high: 1 PA site had a medium high severity score (Little Inagua National Park)
- Medium low: 3 PA sites had medium low severity scores (South Berry Islands Marine Reserve, Crab Cay Marine Reserve, and Harrold and Wilson Pond National Park)

2014 Future Threats

- Medium high: 1 PA site had a medium high severity score (Little Inagua National Park)
- Medium low: 6 PA sites had medium low severity scores (South Berry Islands Marine Reserve, No Name Cay Marine Reserve, Abaco, Exuma (Jewfish) Cay Marine Reserve, Bonefish Pond National Park, and Exuma Cays Land and Sea Park)

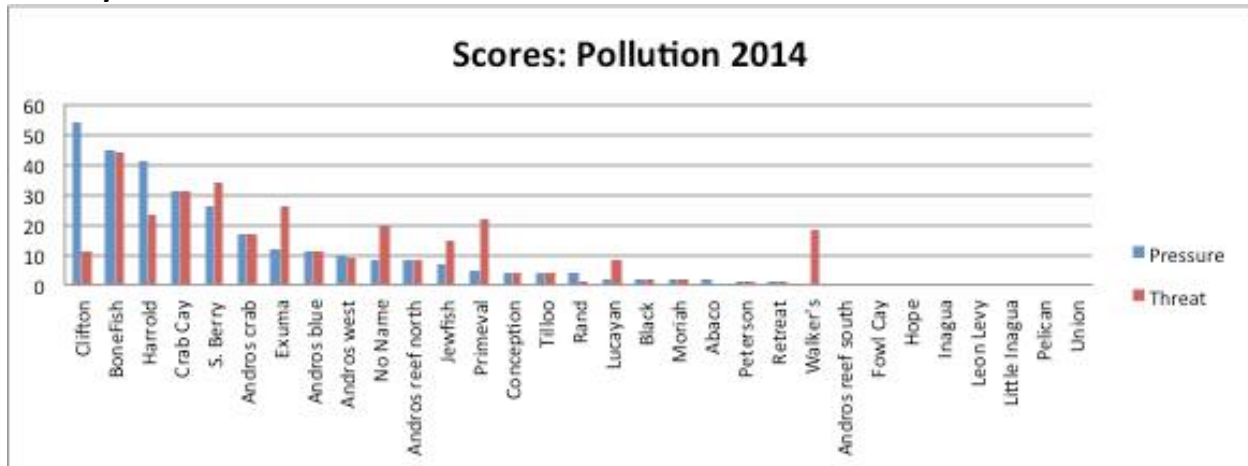
Sub-section: Pollution

Specific Pressures/Threats:

- ⇒ Sewage and urban waste
- ⇒ Waste from PA
- ⇒ Industrial effluents

- ⇒ Agricultural and forestry effluents
- ⇒ Garbage and solid waste
- ⇒ Air-borne pollutants
- ⇒ Excess energy

Severity of Pollution Pressures and Threats



Major Results for Pollution Pressures/Threats

2014 Past Pressures

- Low: All PA sites had low severity scores
- Clifton Heritage Park realized the highest score (score = 54)

2014 Future Threats

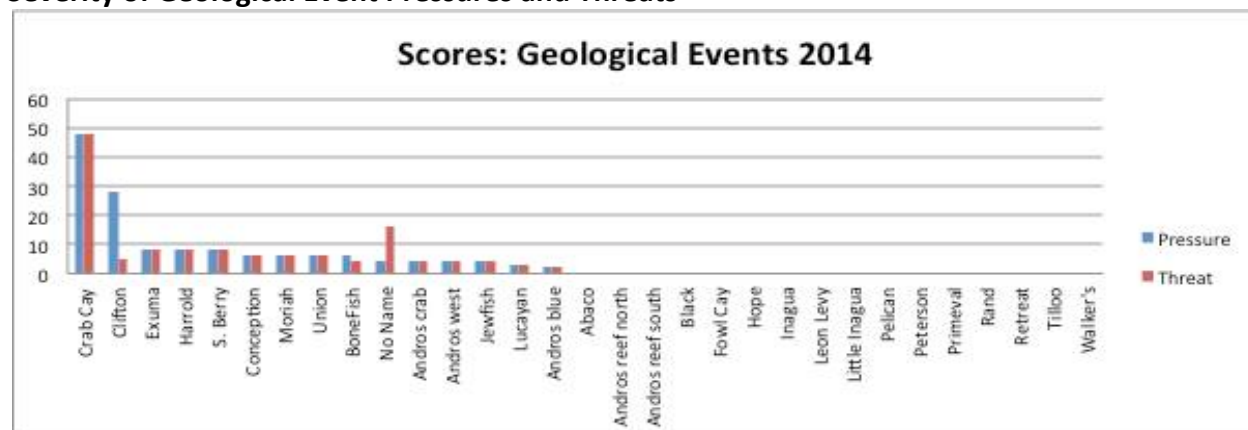
- Low: All PA sites had low severity scores
- Bonefish Pond National Park realized the highest score (score = 44)

Sub-section: Geological Events

Specific Pressures/Threats:

- ⇒ Erosion and siltation
- ⇒ Other geological events

Severity of Geological Event Pressures and Threats



Major Results for Geological Event Pressures/Threats

2014 Past Pressures

- Medium low: 1 PA site had a medium low score (Crab Cay Marine Reserve)

2014 Future Threats

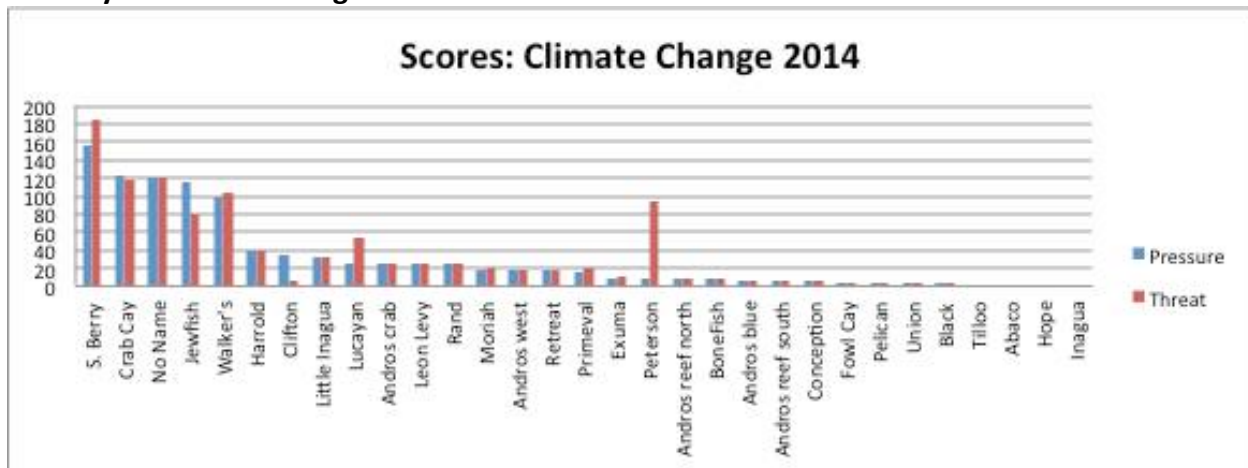
- Medium low: 1 PA site had a medium low score (Crab Cay Marine Reserve)

Sub-section: Climate Change

Specific Pressures/Threats:

- ⇒ Habitat alteration
- ⇒ Droughts
- ⇒ Temperature extremes
- ⇒ Storms and flooding
- ⇒ Changes in acidity

Severity of Climate Change Pressures and Threats



Major Results for Climate Change Pressures/Threats

2014 Past Pressures

- Medium low: 5 PA sites had medium low severity scores (South Berry Islands Marine Reserve, Crab Cay Marine Reserve, No Name Cay Marine Reserve, Exuma (Jewfish) Cay Marine Reserve, and Walker's National Park)

2014 Future Threats

- Medium high: 1 PA site had a medium high severity score (South Berry Islands Marine Reserve)
- Medium low: 5 PA sites had medium low severity scores (No Name Cay Marine Reserve, Crab Cay Marine Reserve, Walker's National Park Peterson Cay National Park, and Exuma (Jewfish) Cay Marine Reserve)

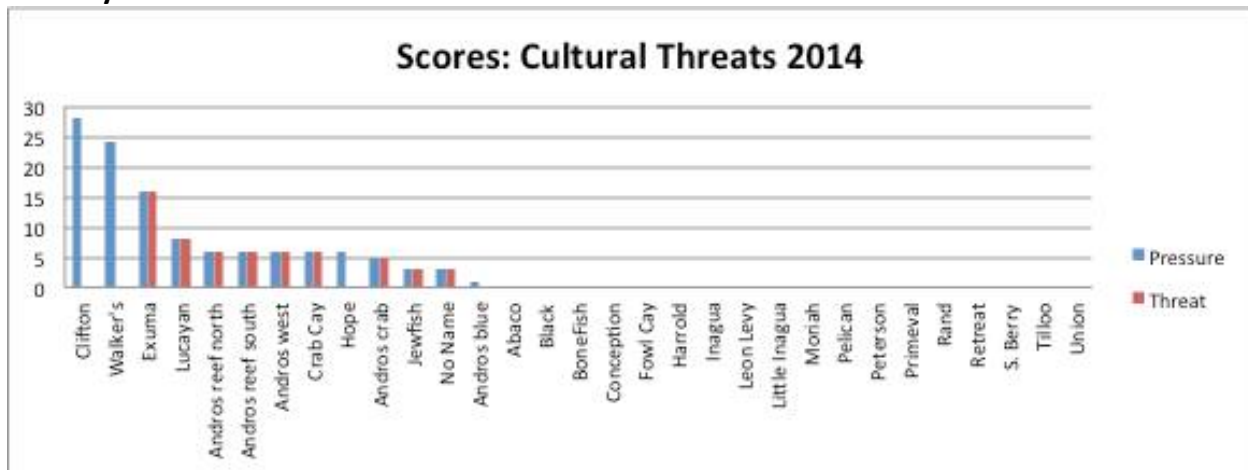
Sub-section: Cultural Threats

Specific Pressures/Threats

- ⇒ Loss of cultural links
- ⇒ Deterioration of cultural sites

⇒ Destruction of cultural heritage

Severity of Cultural Pressures and Threats



Major Results for Cultural Pressures/Threats

2014 Past Pressures

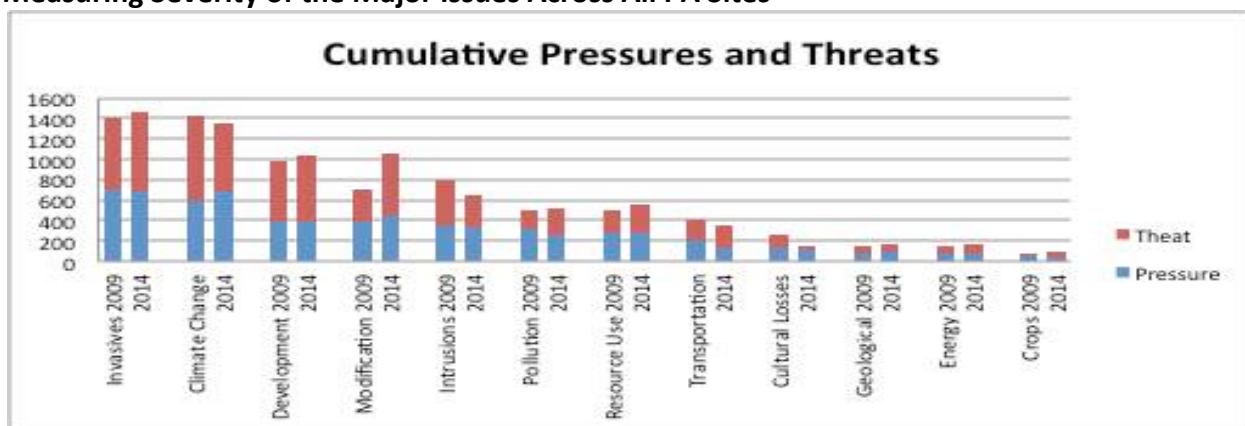
- Low: All PA sites had low severity scores
- Clifton Heritage Park realized the highest score (score = 28)

2014 Future Threats

- Low: All PA sites had low severity scores
- Exuma Cays Land and Sea Park realized the highest score (score = 16)

Sub-section: Cumulative Pressures and Threats

Measuring Severity of the Major Issues Across All PA Sites

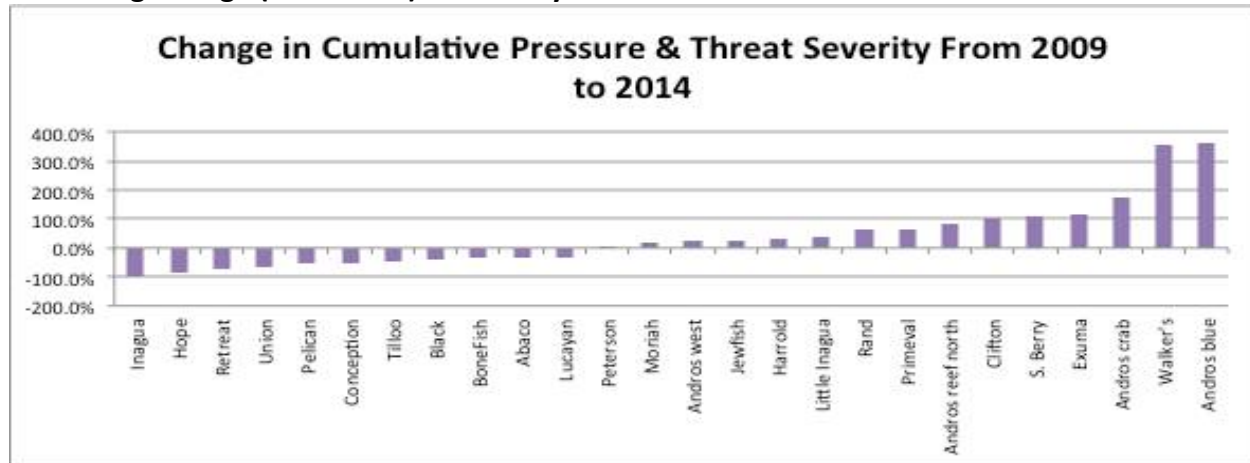


Major Results for the Major Issues

- 2009 cumulative scores: Three issues had the highest severity scores (at least 10% of the total possible score) – Invasives, Development, and Climate Change
- 2014 cumulative scores: Four issues had the highest severity scores (at least 10% of the total possible score) – Invasives, Development, Climate Change, and Natural System Modification

- Additional notes:
 - Results exclude the five additional sites evaluated in 2014
 - No issue scored more than 30% of the total possible score
 - All issues changed minimally between 2009 and 2014 (i.e., no more than 5% change)

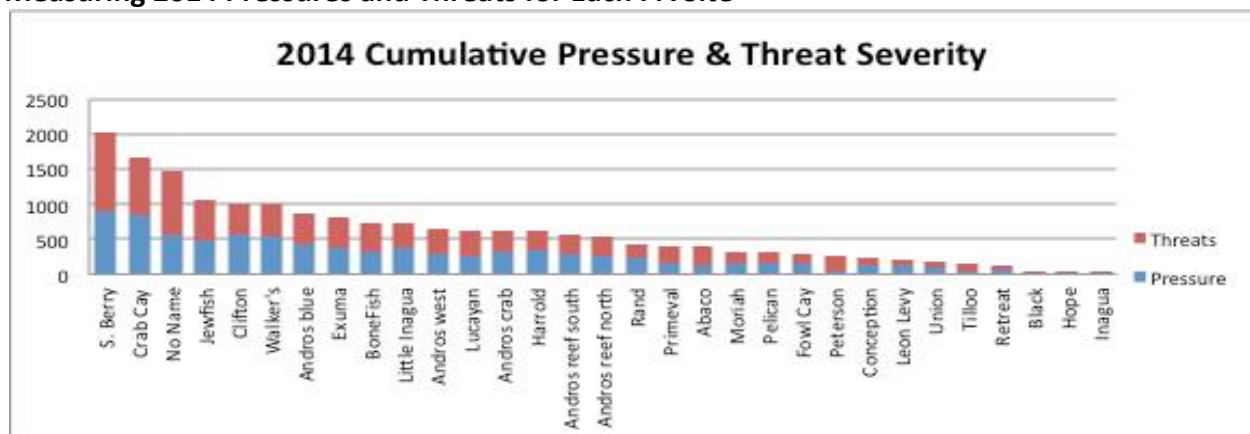
Measuring Change (2009-2014) in Severity of All Issues for Each PA Site



Major Results for Measuring Change in Severity of All Issues

- Extreme increases: 6 PA sites had extreme increases (>100% increase) in the severity of pressures and threats (Andros Blue Holes National Park, Walker's National Park, Andros Crab Replenishment Park, Exuma Cays Land and Sea Park, South Berry Islands Marine Reserve, and Clifton Heritage Park)
- Significant decreases: 6 PA sites had significant decreases (50-100% decrease) in the severity of pressures and threats (Inagua National Park, Hope Great House and Marine Farm, The Retreat, Union Creek Reserve, Pelican Cays Land and Sea Park, and Conception Island National Park)
- Additional notes:
 - Results exclude 5 additional sites evaluated in 2014 and North Bimini Marine Reserve, which was not evaluated in 2014

Measuring 2014 Pressures and Threats for Each PA Site



Major Results for Cumulative Pressures/Threats at Each Site

- Medium high: 2 PA sites scored between 50-75% of the HPS (South Berry Islands Marine Reserve and Crab Cay Marine Reserve)
- Medium low: 6 PA sites scored between 25-50% of the HPS (No Name Cay Marine Reserve, Exuma (Jewfish) Cay Marine Reserve, Clifton Heritage Park, Walker's National Park, Andros Blue Holes National Park, and Exuma Cays Land and Sea Park)

IUCN WORKSHOP OUTPUTS – CURRENT AND FUTURE THREATS

As noted above, BNT recently collaborated with IUCN to revisit and reassign PA management categories across the network. Workshop participants, many the same attending the management effectiveness evaluation, prioritized the following current and future threats facing the Bahamas PA network:

Current threats

Incompatible development (land or marine)	Inland salt water intrusion
Lack of public awareness/education	Natural disasters
Limited support by government	Mining and quarrying
Urban sprawls and land banking	Invasive species
Illegal hunting/poaching	Illegal Narcotics trade/trafficking
Pollution (water and land based)	Wildlife trafficking
Overfishing	Lack of education of law officers on environmental regulations and issues
Illegal fishing	Illegal migrants
Illegal squatting	Marine sonic/seismic testing
Climate change	
• Sea level rise	
• Coral mortality due to rise in sea temperature	

Future threats (includes current threats)

Oil exploration
Mining and quarrying
Reduction of resources due to un-regularized extraction (e.g. aragonite, shells, sea-stars, conch)
Bio-prospecting (terrestrial and marine)
National security concerns
Geopolitics
Man-made disasters

PROTECTED AREA PLANNING, INPUTS, PROCESSES AND OUTPUTS

For each question (indicator) listed below, a statistical breakdown shows both 2009 and 2014 responses. A standard measure of progress then demonstrates improvement or decline in management effectiveness over the five-year period between assessments. Similarly, a high, medium or low ranking is applied to illustrate PA strengths and the relative level of importance

across the network that respondents ascribe to a particular issue. The project team agreed on the following criteria to advance this method of analysis:

Measuring progress⁹

- Significant improvement: greater than 30% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes' (= 8 PAs or greater);
- Modest improvement: 10% - 30% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes' (= 3 to 7 PAs)
- Slight improvement: 1% - 10% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes' (= 1 to 2 PAs)
- No improvement: 0% increase in the number of PAs whose responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Decline in management effectiveness: Any increase in the number of PAs whose responses changed from 'yes' or 'mostly yes' to 'no' or 'mostly no'
- Hi incidence of negative responses: A "high incidence of 'no' responses" means 7 or more PAs responded 'no' to the indicator question (does not include 'mostly no' responses)

Level of importance

- High: 50% or greater of PAs note importance as 'high', 'very high' or 'extremely high'
- Medium: <50% of PAs note importance as 'high', 'very high' or 'extremely high', but at least 20% of PAs note 'medium' or higher
- Low: <20% note importance as 'medium' or higher

Strength of Sub-section/Indicators

- High: PAs scoring within 66.67% to 100% of the highest possible score
- Medium: PAs scoring within 33.34% to 66.66% of the highest possible score
- Low: PAs scoring within 0% to 33.33% of the highest possible score

Assessment Framework Element: Planning

Sub-section: PA objectives

Questions (indicators)

- ⇒ Do the PA objectives provide for the protection and maintenance of biodiversity?
- ⇒ Are specific biodiversity-related objectives clearly stated in the management plan?
- ⇒ Are management policies and plans consistent with the PA objectives?
- ⇒ Do employees and administrators understand the PA objectives and policies?
- ⇒ Do local communities support the overall objectives of the PA?
- ⇒ Is management undertaken according to agreed objectives?

⁹ Progress can only be measured across sites included in both the 2009 and 2014 assessment. The five new sites represent a 2014 baseline and thus responses from these sites are not included in the comparative analysis.



Statistical Breakdown of Responses

Appropriate objectives for the protection and maintenance of biodiversity

- 2009 responses: 20 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 25 of 26 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 0 PAs responded 'no'
- Progress (2009-2014): Modest improvement. 22.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Biodiversity related objectives in management plan

- 2009 responses: 3 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 23 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 13 of 26 PAs responded 'yes' or 'mostly yes'; 1 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)

- Progress (2009-2014): Significant improvement. 38.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Management policies and plans consistent with objectives

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 22 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 13 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Significant improvement. 35.2% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Staff understands objectives and associated policies

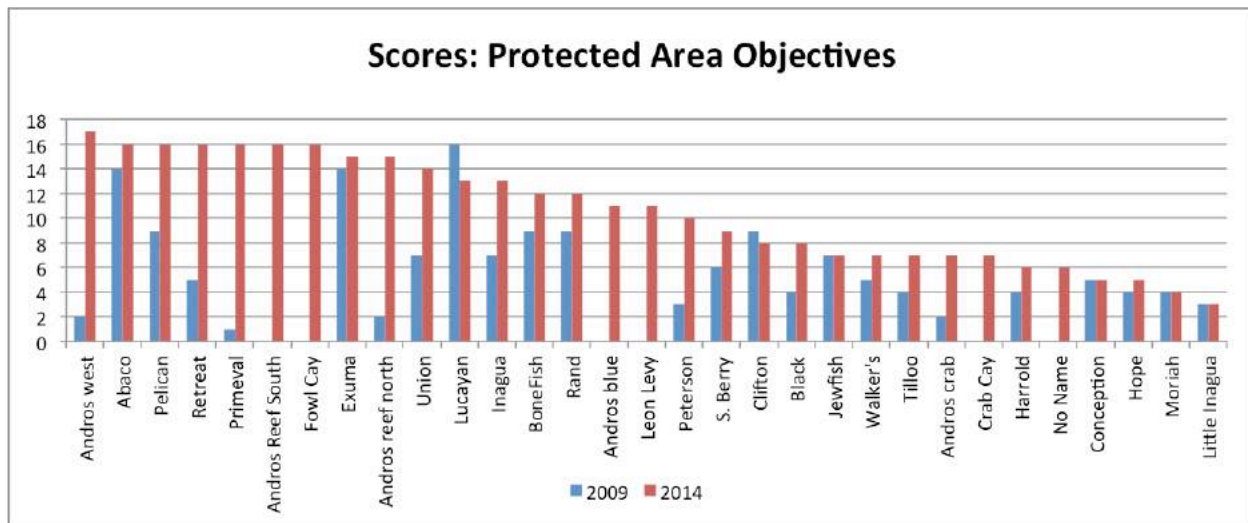
- 2009 responses: 10 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 20 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Significant improvement. 39.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Local communities support PA objectives

- 2009 responses: 22 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 4 PAs responded 'no'
- 2014 responses: 20 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 1 PA responded 'no'
- Progress (2009-2014): Decrease. -4.6% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Management is consistent with objectives

- 2009 responses: 7 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 20 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 13 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 24.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PA Objectives (*2014 baseline sites)

- High: Andros West Side National Park, Abaco, Pelican Cays Land and Sea Park, The Retreat, Primeval Forest National Park, Andros South Marine Park*, Fowl Cays National Park*, Exuma Cays Land and Sea Park, Andros North Marine Park, Union Creek Reserve, Lucayan National Park, Inagua National Park
- Medium: Bonefish Pond National Park, Rand Nature Centre, Andros Blue Holes National Park, Leon Levy Native Plant Preserve*, Peterson Cay National Park, South Berry, Clifton Heritage Park, Balck, Exuma (Jewfish) Cay Marine Reserve, Walker's National Park, Tilloo Cay Reserve, Andros Crab Replenishment Park, Crab Cay Marine Reserve*
- Low: Harrold and Wilson Pond National Park, No Name Cay Marine Reserve*, Conception Island National Park, Hope Great House and Marine Farm, Moriah Harbour Cay National Park, Little Inagua National Park

OPEN GROUP DISCUSSION: PROTECTED AREA OBJECTIVES

In the past, biodiversity conservation served as a primary driver to set aside and manage important natural ecosystems in the Bahamas. Although this objective remains critically important, senior BEST and BNT staff noted that, for many established PAs, objectives have expanded since 2009 to consider local stakeholder needs and interaction with the environment. Community consultations, held in different locations around the country during recent management plan development efforts, have played a significant role in refining PA objectives across the network.

Stakeholder engagement is a core element of successful PA design, planning, and ongoing management. Bahamian conservation leaders recognize that from a socio-economic perspective, effectively managed and broadly supported PAs evolve to become natural assets that create a range of livelihood opportunities for coastal inhabitants. To enhance community support for management objectives, notably over the last 2-3 years, BNT has prioritized development of community outreach programmes, visitor centers and interpretive signage (see infrastructure / communication and information sections below).

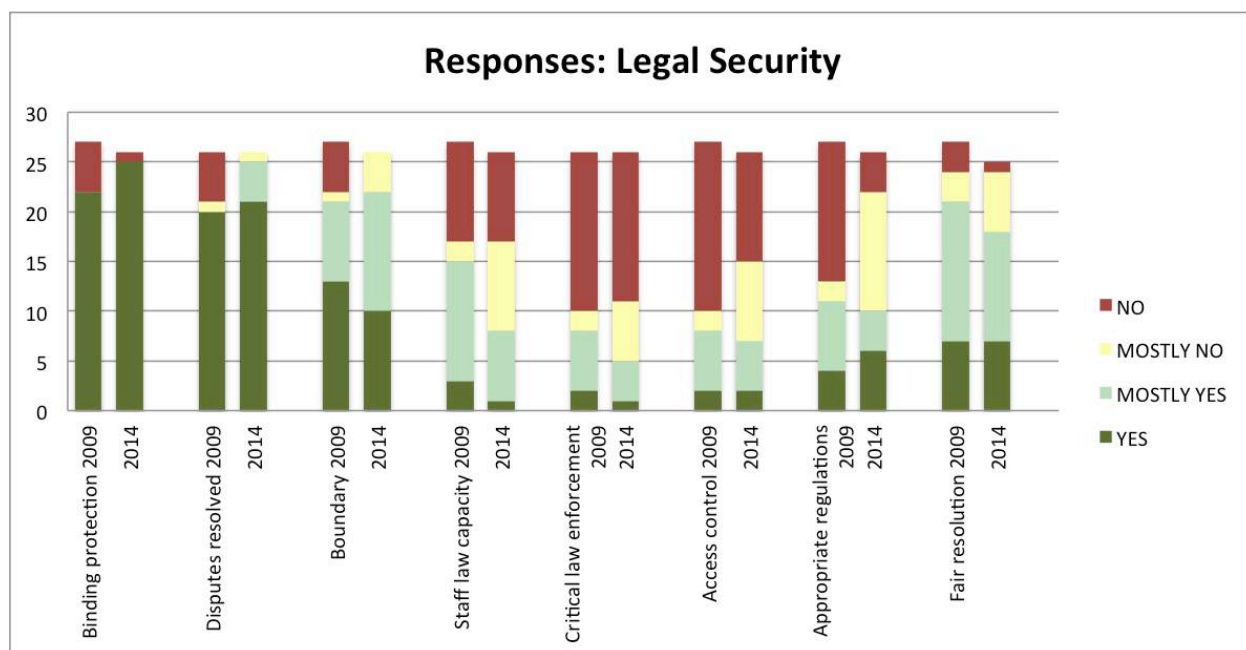
While the group noted a positive trend toward establishing clear biodiversity conservation objectives, many stressed the ongoing need for community interaction to develop socioeconomic objectives as their respective PAs continue to develop. In fact, most BNT staff is now charged to regularly involve communities in the process of PA design and ongoing management. Moreover, results of the parallel IUCN workshop series, aimed at reviewing and refining PA management categories, will further inform and clarify management objectives across the network.

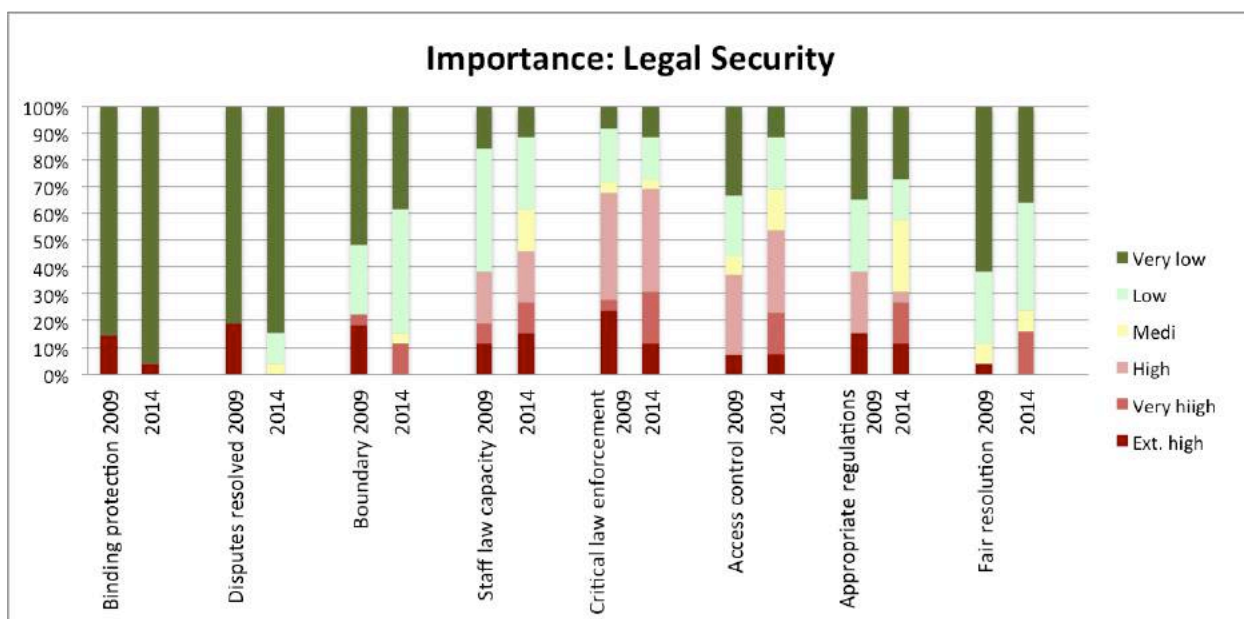
Assessment Framework Element - Planning

Sub-section: Legal Security

Questions (indicators)

- ⇒ Does the PA have long-term, binding legal status?
- ⇒ Have all disputes regarding land tenure and/or use rights been settled?
- ⇒ Is the boundary known, demarcated and/or adequate to meet the PA objectives?
- ⇒ Can staff enforce PA rules well enough?
- ⇒ Are staff and financial resources adequate to conduct critical law enforcement activities?
- ⇒ Are systems in place to control access/resource use in the PA?
- ⇒ Are appropriate regulations and/or mechanisms in place to control land use and activities?
- ⇒ Are conflicts with the local community resolved fairly and effectively?





Statistical Breakdown of Responses

Does the PA have long-term, binding legal status?

- 2009 responses: 22 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 5 PAs responded 'no'
- 2014 responses: 25 of 26 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 1 PA responded 'no'
- Progress (2009-2014): Modest improvement; 14.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Have all disputes regarding land tenure and/or use rights been settled?

- 2009 responses: 20 of 26 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 5 PAs responded 'no'
- 2014 responses: 25 of 26 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no'
- Progress (2009-2014): Modest improvement; 19.2% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Is the boundary known, demarcated and/or adequate to meet the PA objectives?

- 2009 responses: 21 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 5 PAs responded 'no'
- 2014 responses: 22 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no'
- Progress (2009-2014): Slight improvement; 6.8% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Can staff enforce PA rules well enough?

- 2009 responses: 15 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease; -24.8% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are staff and financial resources adequate to conduct critical law enforcement activities?

- 2009 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 16 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease; -11.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are systems in place to control access/resource use in the PA?

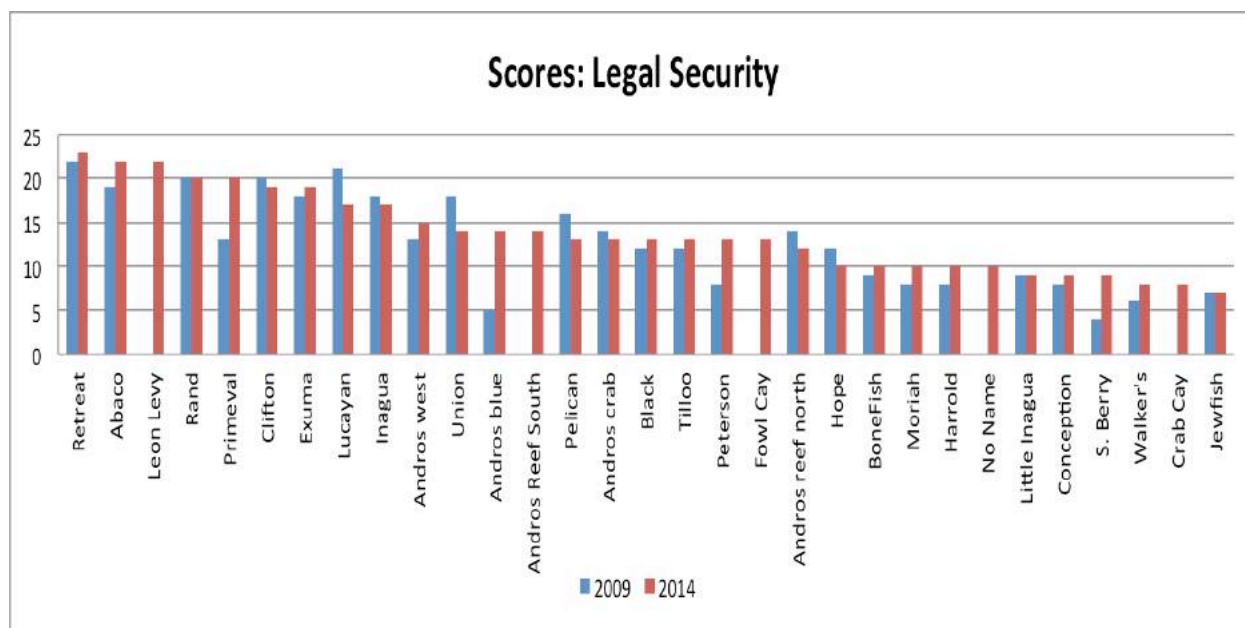
- 2009 responses: 8 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease; -2.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are appropriate regulations and/or mechanisms in place to control land use and activities?

- 2009 responses: 11 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 12 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Decrease; -2.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are conflicts with the local community resolved fairly and effectively?

- 2009 responses: 21 of 25 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 3 PAs responded 'no'
- 2014 responses: 18 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 1 PA responded 'no'
- Progress (2009-2014): Decrease; -5.8% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PAs Legal Security

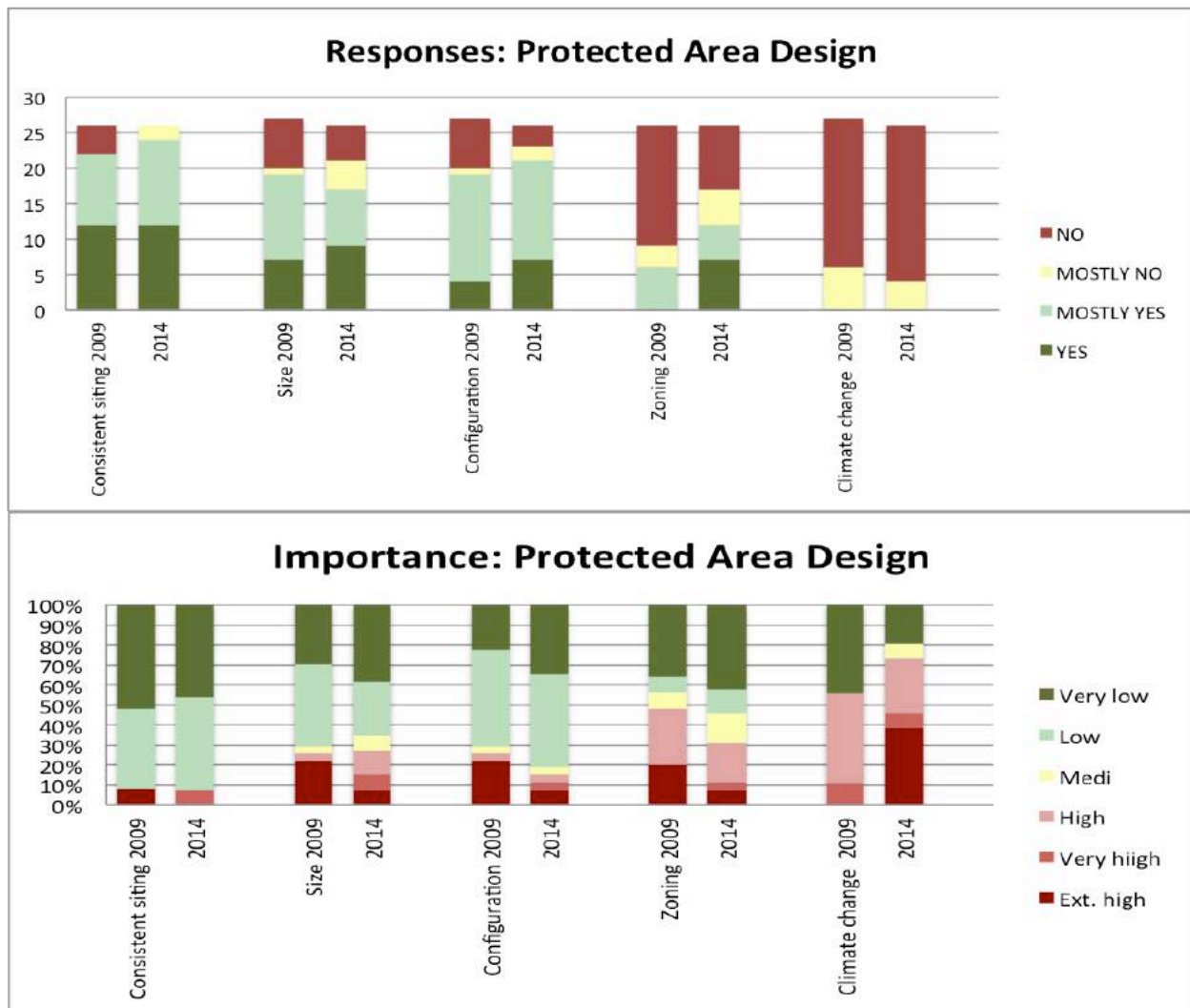
- High: The Retreat, Abaco, Leon Levy Native Plant Preserve*, Rand Nature Centre, Primeval Forest National Park, Clifton Heritage Park, Exuma Cays Land and Sea Park, Lucayan National Park, Inagua National Park
- Medium: Andros West Side National Park, Union Creek Reserve, Andros Blue Holes National Park, Andros South Marine Park*, Pelican Cays Land and Sea Park, Andros Crab Replenishment Park, Black Sound Cay Reserve, Tilloo Cay Reserve, Peterson Cay National Park, Fowl Cays National Park*, Andros North Marine Park, Hope Great House and Marine Farm, Bonefish Pond National Park, Moriah Harbour Cay National Park, Harrold and Wilson Pond National Park, No Name Cay Marine Reserve*, Little Inagua National Park, Conception Island National Park, South Berry Islands Marine Reserve
- Low: Walker's National Park, Crab Cay Marine Reserve, Exuma (Jewfish) Cay Marine Reserve

Assessment Framework Element: Planning

Sub-section: PA Design

Questions (indicators)

- ⇒ Is the siting of the PA consistent with the PA objectives?
- ⇒ Is the PA the right size and shape to protect species, habitats, ecological processes and water catchments of key conservation concern?
- ⇒ Does the layout and configuration of the PA optimize biodiversity conservation?
- ⇒ Is the PA zoning system adequate to achieve the PA objectives?
- ⇒ Does the PA design anticipate changes under climate change scenarios?



Statistical Breakdown of Responses

Is the siting of the PA consistent with the PA objectives?

- 2009 responses: 22 of 26 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 4 PAs responded 'no'
- 2014 responses: 24 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 0 PAs responded 'no'
- Progress (2009-2014): Slight improvement. 7.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Is the PA the right size and shape to protect species, habitats, ecological processes and water catchments of key conservation concern?

- 2009 responses: 19 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 21 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 5 PAs responded 'no'

- Progress (2009-2014): Decrease. -5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Does the layout and configuration of the PA optimize biodiversity conservation?

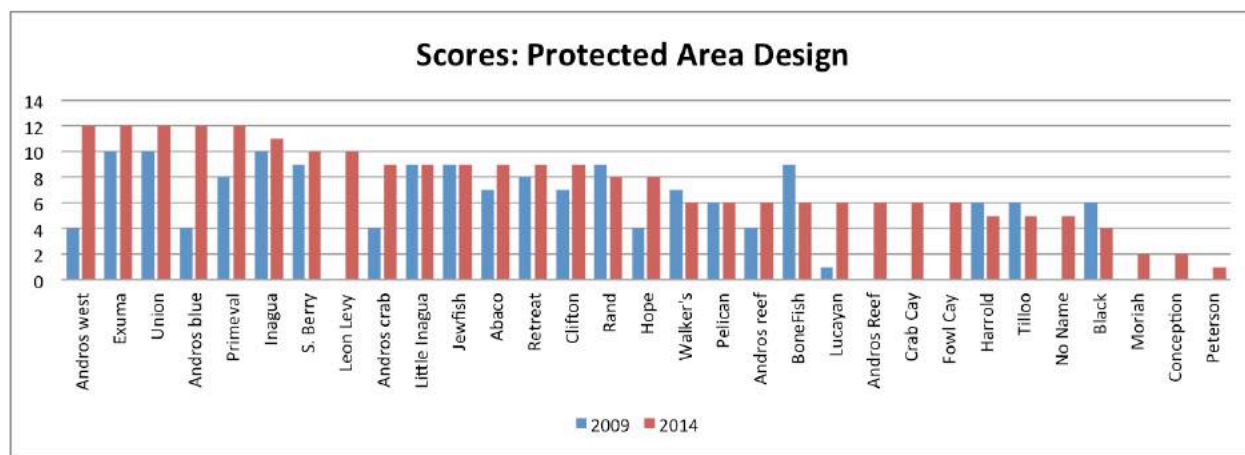
- 2009 responses: 19 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 21 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 3 PAs responded 'no'
- Progress (2009-2014): Modest improvement. 10.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Is the PA zoning system adequate to achieve the PA objectives?

- 2009 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 23.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Does the PA design anticipate changes under climate change scenarios?

- 2009 responses: 0 of 27 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 21 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 0 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 22 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): No improvement. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High



Strength of Individual PA Design (*2014 baseline sites)

- High: Andros West Side National Park, Exuma Cays Land and Sea Park, Union Creek Reserve, Andros Blue Holes National Park, Primeval Forest National Park, Inagua National Park
- Medium: South Berry Islands Marine Reserve, Leon Levy Native Plant Preserve*, Andros Crab Replenishment Park, Little Inagua, Exuma (Jewfish) Cay Marine Reserve, Abaco, The Retreat, Clifton Heritage Park, Rand Nature Centre, Hope Great House and Marine Farm, Walker's National Park, Pelican Cays Land and Sea Park, Andros North Marine Park, Bonefish Pond National Park, Lucayan National Park, Andros South Marine Park*, Crab Cay Marine Reserve*, Fowl Cays National Park*
- Low: Harrold and Wilson Pond National Park, Tilloo Cay Reserve, No Name Cay Marine Reserve*, Black Sound Cay Reserve, Moriah Harbour Cay National Park, Conception Island National Park, Petersen Cay National Park

OPEN GROUP DISCUSSION: PROTECTED AREA DESIGN

The group briefly discussed recent advancements in PA design at different sites across the network. Geographic Information System mapping has improved significantly since 2009. By way of example, a zoning plan has been completed for the South Berry Island Marine Reserve. The process of developing this plan serves as a template for other sites considering the creation of different management zones, such as Andros North and South Marine Reserves. Some noted that at least one DMR Marine Reserve did not include key biodiversity spots, and thus its design needs to be revisited. Others noted how all DMR sites are technically 'no take' reserves, yet none is currently supported by active management. Many pointed out the lack of climate resilience planning across the network and stressed the need to address this issue, particularly as new sites are considered.

Assessment Framework Element: Planning

Sub-section: Management planning

Questions (indicators)

- ⇒ Is there a management plan and is it being implemented?
- ⇒ Is the management plan comprehensive, written and relatively recent?
- ⇒ Is there enough information to manage the area?
- ⇒ Is there a comprehensive inventory of natural and cultural resources?
- ⇒ Is there an analysis of, and strategy for address, PA threats and pressures?
- ⇒ Is there a regular workplan and is it being implemented?
- ⇒ Does the work plan identify specific targets for achieving management objectives?

- ⇒ Are the results of research and monitoring routinely incorporated into planning?
- ⇒ Is there a schedule and process for periodic review and updating of the management plan?



Statistical Breakdown of Responses

Is there a management plan and is it being implemented?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 23 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 8.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is the management plan comprehensive, written and relatively recent?

- 2009 responses: 5 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 21 PAs responded 'no' (High incidence of 'no' responses)

- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 0.71% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is there enough information to manage the area?

- 2009 responses: 19 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 3 PAs responded 'no'
- 2014 responses: 23 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 1 PAs responded 'no'
- Progress (2009-2014): Modest improvement. 18.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Is there a comprehensive inventory of natural and cultural resources?

- 2009 responses: 12 of 27 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 15 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 3 PAs responded 'no'
- Progress (2009-2014): Modest improvement. 13.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there an analysis of, and strategy for addressing, PA threats and pressures?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 18 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 16 PAs responded 'mostly no' and 5 PAs responded 'no'
- Progress (2009-2014): Slight improvement. 4.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there a regular workplan and is it being implemented?

- 2009 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 16 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Modest improvement. 23.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Does the work plan identify specific targets for achieving management objectives?

- 2009 responses: 9 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 16 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 16 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Moderate improvement. 28.2% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are the results of research and monitoring routinely incorporated into planning?

- 2009 responses: 11 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -6.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there a schedule and process for periodic review and updating of the management plan?

- 2009 responses: 3 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 21 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 8.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High



Strength of Individual PA Management Plans (*2014 baseline sites)

- High: Exuma Cays Land and Sea Park, Abaco, Andros West Side National Park, Union Creek Reserve
- Medium: Pelican Cays Land and Sea Park, Andros South Marine Park*, Leon Levy Native Plant Preserve*, Andros North Marine Park, The Retreat, Fowl Cays National Park*, Black Sound Cay Reserve, Peterson Cay National Park, Lucayan National Park, Bonefish Pond National Park, Primeval Forest National Park, Inagua National Park, Clifton Heritage Park, Rand Nature Centre, Crab Cay Marine Reserve*
- Low: South Berry Islands Marine Reserve, Andros Blue Holes National Park, Harrold and Wilson Pond National Park, Walker's National Park, Andros Crab Replenishment Park, Conception Island National Park, Exuma (Jewfish) Cay Marine Reserve, Tilloo Cay Reserve, Moriah Harbour Cay National Park, Hope Great House and Marine Farm, No Name Cay Marine Reserve*, Little Inagua National Park

OPEN GROUP DISCUSSION: MANAGEMENT PLANNING

Management planning represents perhaps the most significant area of improvement across the Bahamas PA network over the last five years. Ensuring draft plans are completed and formally adopted remains a high priority. At the same time, the Exuma Cays Land and Sea Park management plan, the first in the network, is nearly expired. Review and refinement of this plan may serve as a template for reviewing other plans that expire in the coming years. Participants described progress in developing management plans, noting that most work has occurred since the 2009 management effectiveness evaluation.

General management plans (final documents published)

- Exuma Cays Land and Sea Park (2006)
- Abaco National Park (2008)
- Andros West Side National Park (2013)
- South Berry Islands Marine Reserve (2013)

Draft management plans (drafted but lacking 'General Management Plan' status)

The management planning process is guided by a BNT initiative that comprises comprehensive consultation with local stakeholders as well as Central and Local Government. This process does not require government approval and there is no need to have the plan legislated and gazetted.

- Andros North and South Marine Parks
- Lucayan National Park
- Bonefish Pond National Park
- Primeval Forest National Park
- The Retreat
- Abaco National Park: Plan scope evolved in recent years to include Pelican Cays Land and Sea Park, Black Sound Cay National Reserve, Walker's Cay National Park, and Fowl Cays National Park
- San Salvador National Parks: BNT led process with Living Jewels and local community to develop a single management plan for all five of the island's proposed PA sites

Priority sites for new management plan development

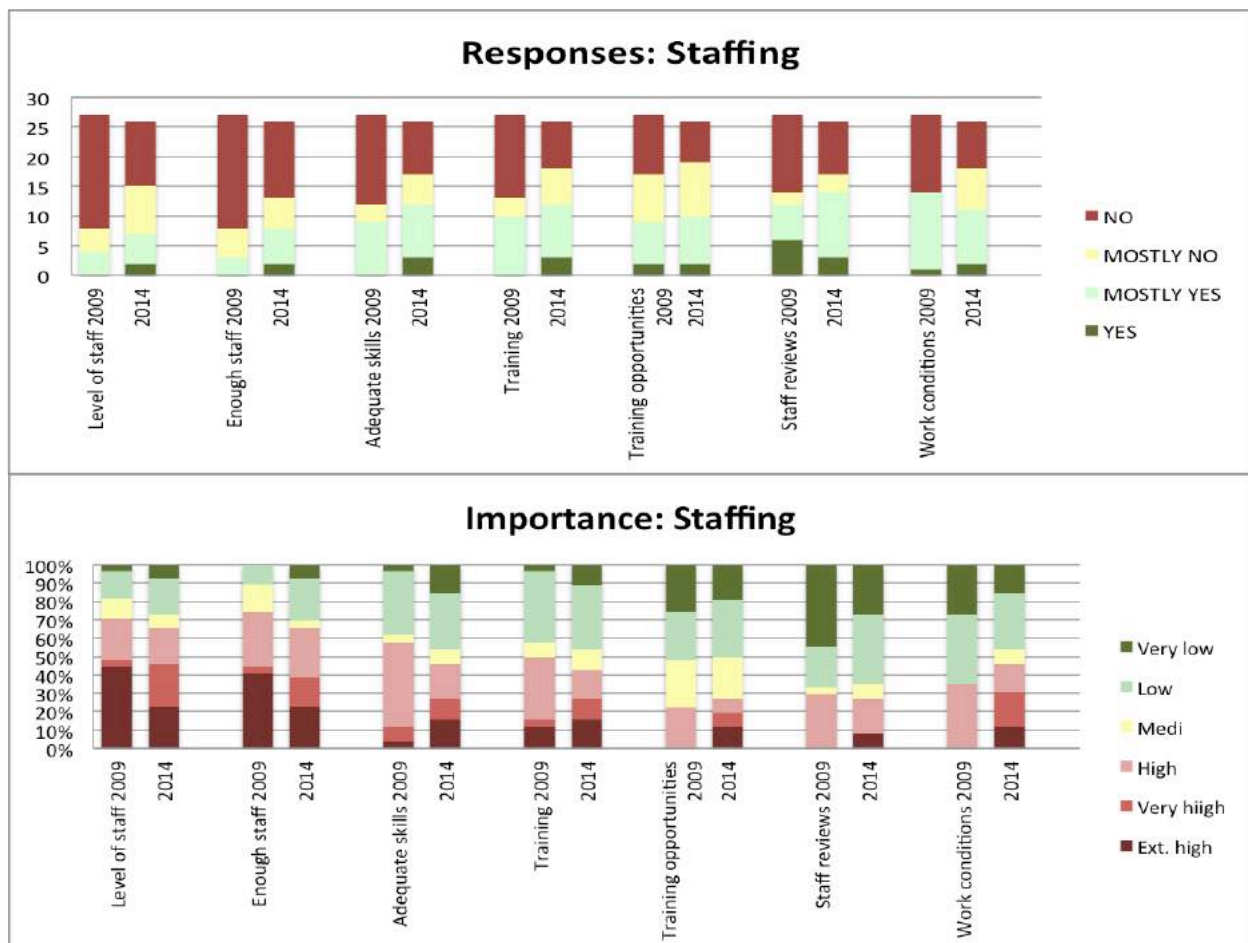
- Harrold and Wilson Ponds National Park
- Leon Levy Native Plant Preserve
- Blue Holes National Park
- Inagua National Park
- Little Inagua National Park National Park
- Moriah Harbour Cay National Park
- Rand Nature Centre

Assessment Framework Element: Inputs

Sub-section: Staffing

Questions (indicators)

- ⇒ Is the level of staffing sufficient to effectively manage the area?
- ⇒ Are there enough people employed to manage the PA?
- ⇒ Do staff members have adequate skills to conduct critical management activities?
- ⇒ Are staff adequately trained to fulfill management objectives?
- ⇒ Are training and development opportunities appropriate to staff needs?
- ⇒ Are staff performance and progress on targets periodically reviewed?
- ⇒ Are staff employment conditions sufficient to retain high quality staff?



Statistical Breakdown of Responses

Is the level of staffing sufficient to effectively manage the area?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 19 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 12.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are there enough people employed to manage the PA?

- 2009 responses: 3 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 19 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 19.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Do staff members have adequate skills to conduct critical management activities?

- 2009 responses: 9 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 12.8% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are staff adequately trained to fulfil management objectives?

- 2009 responses: 10 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 9.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are training and development opportunities appropriate to staff needs?

- 2009 responses: 9 of 27 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 5.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

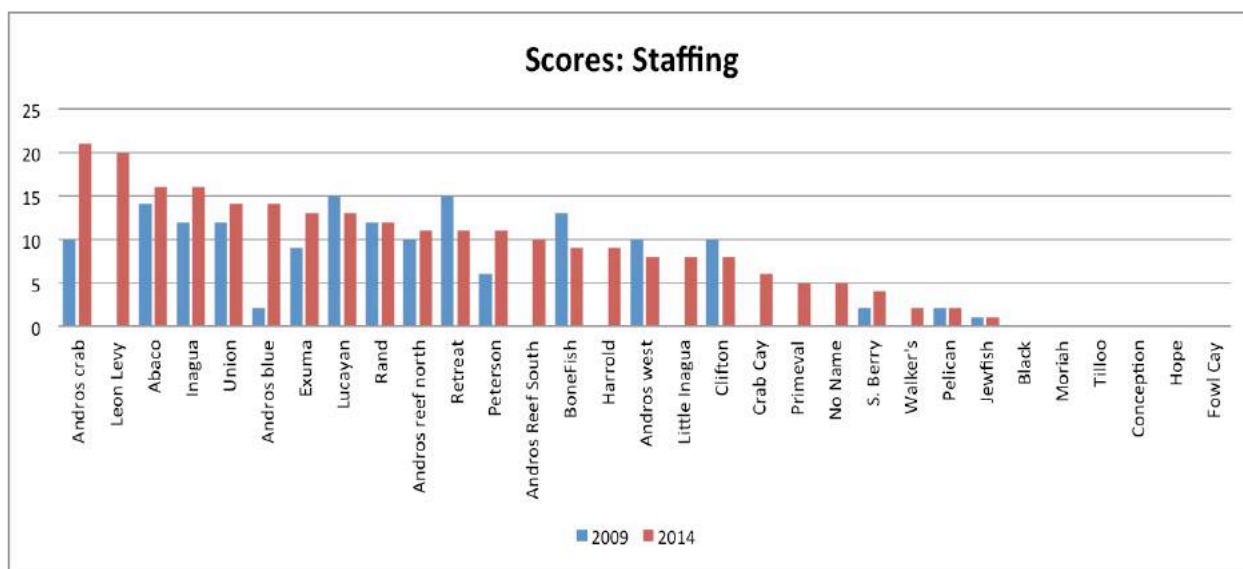
- Level of importance (2014): Medium

Are staff performance and progress on targets periodically reviewed?

- 2009 responses: 12 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 14 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 9.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are staff employment conditions sufficient to retain high quality staff?

- 2009 responses: 14 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -9.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PA Staffing (*2014 baseline sites)

- High: Andros Crab Replenishment Park, Leon Levy Native Plant Preserve*, Abaco, Inagua National Park, Union Creek Reserve, Andros Blue Holes National Park
- Medium: Exuma Cays Land and Sea Park, Lucayan National Park, Rand Nature Centre, Andros North Marine Park, The Retreat, Peterson Cay National Park, Andros South Marine Park*, Bonefish Pond National Park, Harrold and Wilson Pond National Park, Andros West Side National Park, Little Inagua National Park, Clifton Heritage Park

- Low: Crab Cay Marine Reserve*, Primeval Forest National Park, No Name Cay Marine Reserve*, South Berry Islands Marine Reserve, Walker's National Park, Pelican Cays Land and Sea Park, Exuma (Jewfish) Cay Marine Reserve, Black Sound Cay Reserve, Moriah Harbour Cay National Park, Tilloo Cay Reserve, Conception Island National Park, Hope Great House and Marine Farm, Fowl Cays National Park

OPEN GROUP DISCUSSION: STAFFING

Guided by the first BNT strategic plan (2008-2013), managers across the network are now required to develop annual workplans. These workplans are based on the strategic plan (now 2013 – 2017) then revised downward to align with funding limitations. Senior BNT staff noted that the downsizing is sometimes significant yet necessary to ensure full implementation. Many workshop participants also described how spontaneous needs often arise that cause staff to stray from original workplans. The group generally agreed that prioritization of annual management activities remains paramount, particularly within an environment of challenging budget constraints.

Several new PAs have added staff since 2009, including:

- Lucayan National Park (1 new Warden)
- Inagua National Park (1 new Warden)
- Andros Park System (1 new Education Officer)
- Abaco National Park (1 new Warden)
- Exuma Cays Land and Sea Park (1 new Warden and 1 new Maintenance Officer)

The group highlighted the benefits of recent staff trainings and expressed a desire for more opportunities. Some recommended development of an overarching training programme for staff across the PA network. Recent trainings include but are not necessarily limited to:

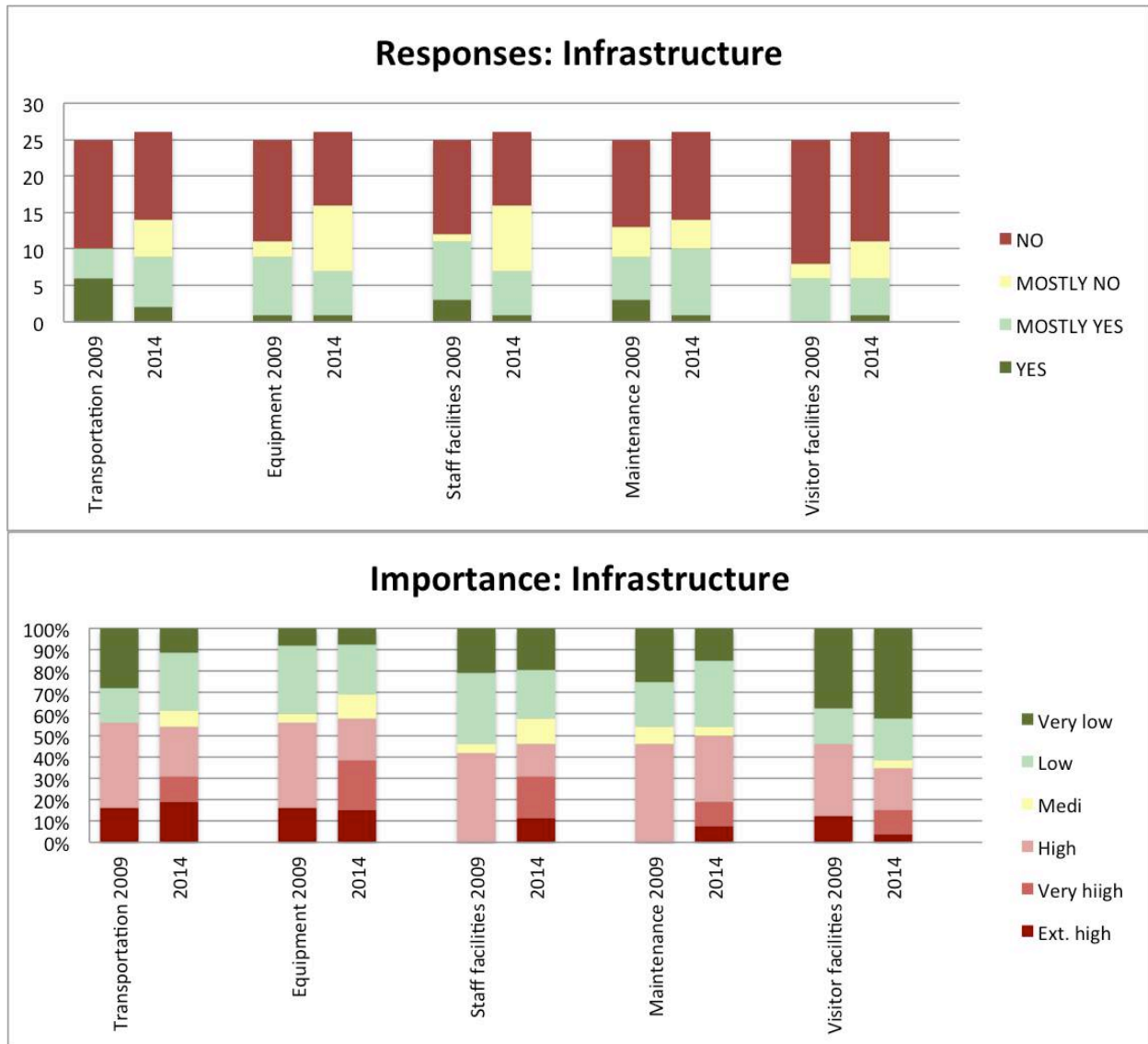
- Training of Trainers in MPA Management (UNEP-CEP)
- Atlantic and Gulf Rapid Reef Assessment and Reef Check training/certification (GEF-FSP)
- MPA enforcement training (GEF-FSP)
- Introduction to MPA Management Planning (GEF-FSP)
- IUCN PA categorization (IUCN)
- Bird guide training (BNT)

Assessment Framework Element – Inputs

Sub-section: Infrastructure

Questions (indicators)

- ⇒ Is transportation infrastructure adequate to perform critical management activities?
- ⇒ Is equipment sufficient for management needs and for performing critical management activities?
- ⇒ Are staff facilities adequate to perform critical management activities?
- ⇒ Is equipment maintenance and care adequate to ensure long-term use?
- ⇒ Are visitor facilities appropriate to the level of visitor use?



Statistical Breakdown of Responses

Is transportation infrastructure adequate to perform critical management activities?

- 2009 responses: 10 of 25 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -5.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is equipment sufficient for management needs and for performing critical management activities?

- 2009 responses: 9 of 25 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)

- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -9.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are staff facilities adequate to perform critical management activities?

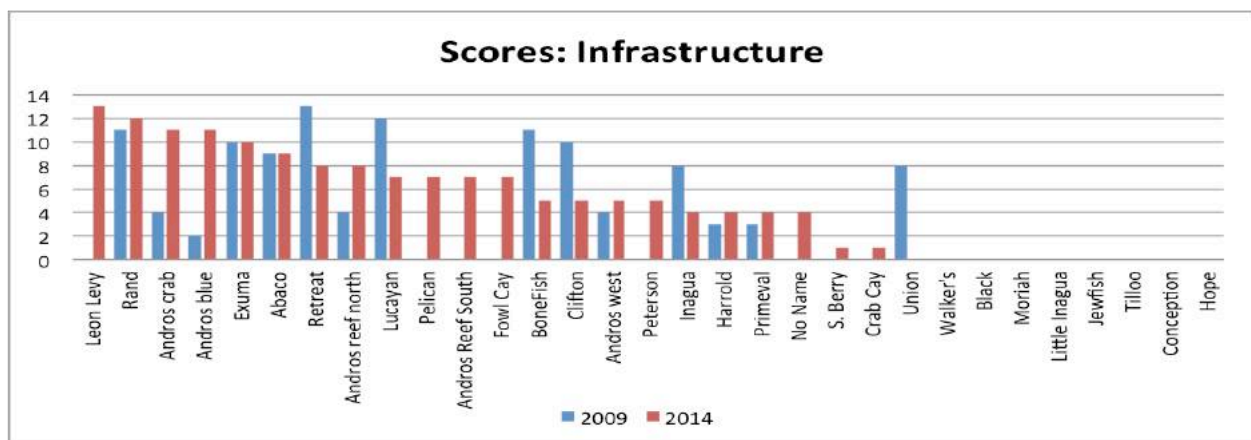
- 2009 responses: 11 of 25 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -17.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is equipment maintenance and care adequate to ensure long-term use?

- 2009 responses: 9 of 25 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 2.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are visitor facilities appropriate to the level of visitor use?

- 2009 responses: 6 of 25 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -0.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PA Infrastructure (*2014 baseline sites)

- High: Leon Levy Native Plant Preserve*, Rand Nature Centre, Andros Crab Replenishment Park, Andros Blue Holes National Park
- Medium: Exuma Cays Land and Sea Park, Abaco, The Retreat, Andros North Marine Park, Lucayan National Park, Pelican Cays Land and Sea Park, Andros South Marine Park*, Fowl Cays National Park*
- Low: Bonefish Pond National Park, Clifton Heritage Park, Andros West Side National Park, Peterson Cay National Park, Inagua National Park, Harrold and Wilson Pond National Park, Primeval Forest National Park, No Name Cay Marine Reserve*, South Berry Islands Marine Reserve, Crab Cay Marine Reserve, Union Creek Reserve, Walker's National Park, Black Sound Cay Reserve, Moriah Harbour Cay National Park, Little Inagua National Park, Exuma (Jewfish) Cay Marine Reserve, Tilloo Cay Reserve, Conception Island National Park, Hope Great House and Marine Farm

OPEN GROUP DISCUSSION: INFRASTRUCTURE

Many PAs have, since 2009, crafted and begun to implement infrastructure development plans. Again, this internal planning process grows directly from the 2008-2013 BNT strategic plan. Increasingly, senior BNT staff sees a link between infrastructure development and creation of new financing opportunities. PA infrastructure plans identify needed or proposed infrastructure and include associated costs. Early implementation of these conceptual plans has resulted in new development (e.g. camp site, new trails, visitor centers etc.) at following sites:

- Primeval Forest National Park – welcome centre, trail improvements, compost toilets, signage, boardwalk
- Abaco National Park – new trails, signage
- Black Sound Cay National Park – new trails, signage
- Fowl Cays National Park – cabanas, signage
- Pelican Cays Land and Sea Park – cabanas, signage
- Lucayan National Park – pavilion, signage
- Andros Blue Holes National Park – new trails
- Andros North and South Marine Parks – demarcation buoys, signage
- Andros West Side National Park – demarcation buoys

While many acknowledged and support recent improvements, the group generally agreed that infrastructure development remains a weakness and, as such, an outstanding priority across the PA network. As with other priority topics, budget constraints present an ongoing challenge and limit even basic infrastructure development. For example, many PAs have seen a significant rise in visitors yet still do not have appropriate facilities such as bathrooms. That said, several noted that it would be inappropriate to develop facilities in some sensitive PA habitats.

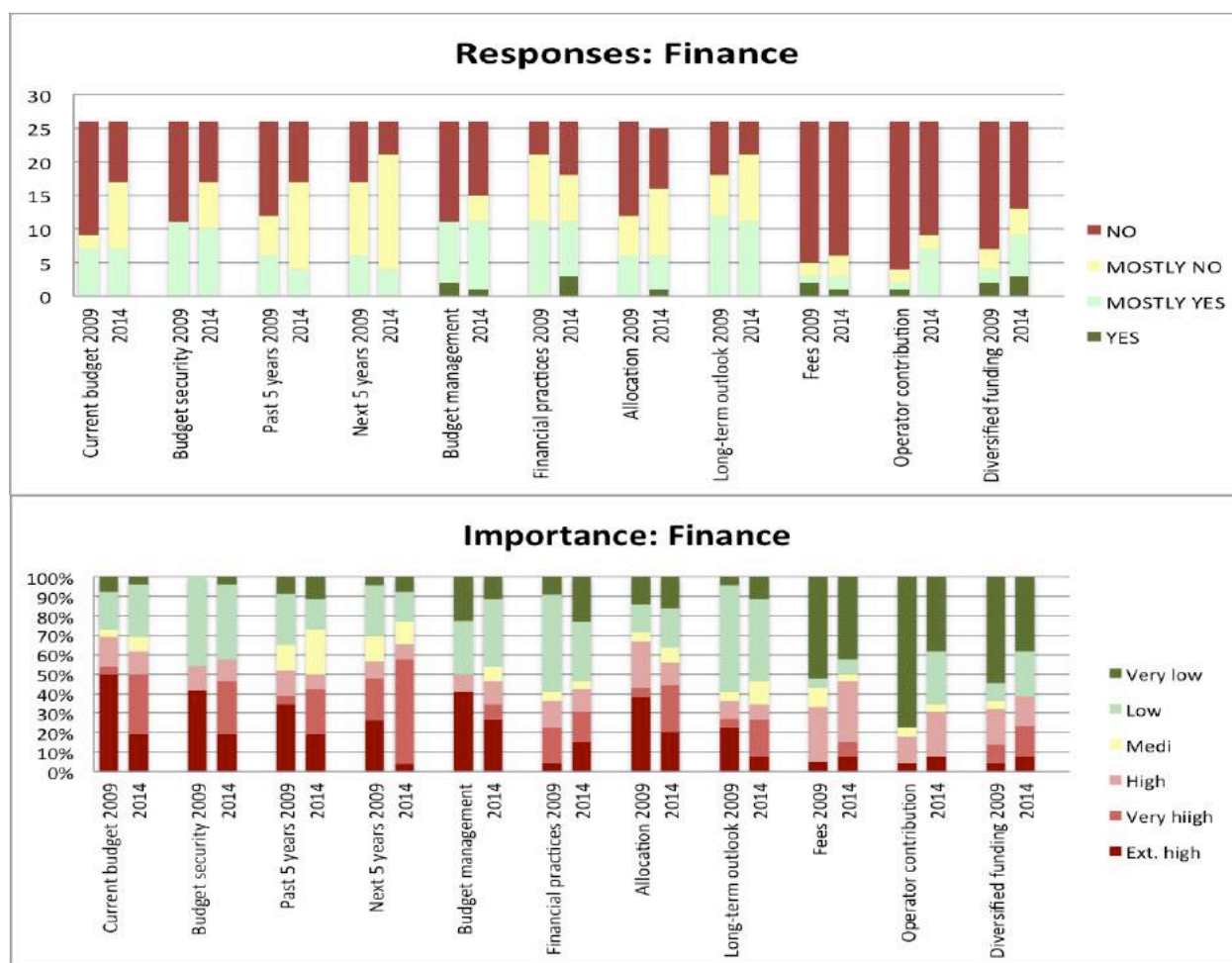
Others stressed the need for more vehicles while acknowledging that management at Andros Reef Marine Reserve, Abaco National Park and the Grand Bahamas PAs have benefitted from the acquisition of new boats. Still others described how limited budget resources create a significant challenge for maintaining equipment in good working order.

Assessment Framework Element – Inputs

Sub-section: Financing

Questions (indicators)

- ⇒ Is the current budget sufficient to conduct critical management activities?
- ⇒ Is the budget secure?
- ⇒ In the past five years, has funding been adequate to conduct critical management activities?
- ⇒ For the next five years, is funding adequate to conduct critical management activities?
- ⇒ Is the budget managed to meet critical management needs?
- ⇒ Do overall financial management practices enable efficient and effective PA management?
- ⇒ Is the allocation of expenditures appropriate to PA priorities and objectives?
- ⇒ Is the long-term financial outlook for the PA stable?
- ⇒ Do fees (if they are applied) enable effective PA management?
- ⇒ Do commercial operators contribute to PA management?
- ⇒ Is the funding for the PA diversified?



Statistical Breakdown of Responses

Is the current budget sufficient to conduct critical management activities?

- 2009 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): No improvement. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is the budget secure?

- 2009 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -3.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

In the past five years, has funding been adequate to conduct critical management activities?

- 2009 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 4 of 26 PAs responded 'yes' or 'mostly yes'; 13 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -7.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

For the next five years, is funding adequate to conduct critical management activities?

- 2009 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 4 of 26 PAs responded 'yes' or 'mostly yes'; 17 PAs responded 'mostly no' and 5 PAs responded 'no'
- Progress (2009-2014): Decrease. -7.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is the budget managed to meet critical management needs?

- 2009 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): No improvement. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

- Level of importance (2014): Medium

Do overall financial management practices enable efficient and effective PA management?

- 2009 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 5 PAs responded 'no'
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): No improvement. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is the allocation of expenditures appropriate to PA priorities and objectives?

- 2009 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 0.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is the long-term financial outlook for the PA stable?

- 2009 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 5 PAs responded 'no'
- Progress (2009-2014): Decrease. -3.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Do fees (if they are applied) enable effective PA management?

- 2009 responses: 3 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 21 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 3 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 20 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): No improvement. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

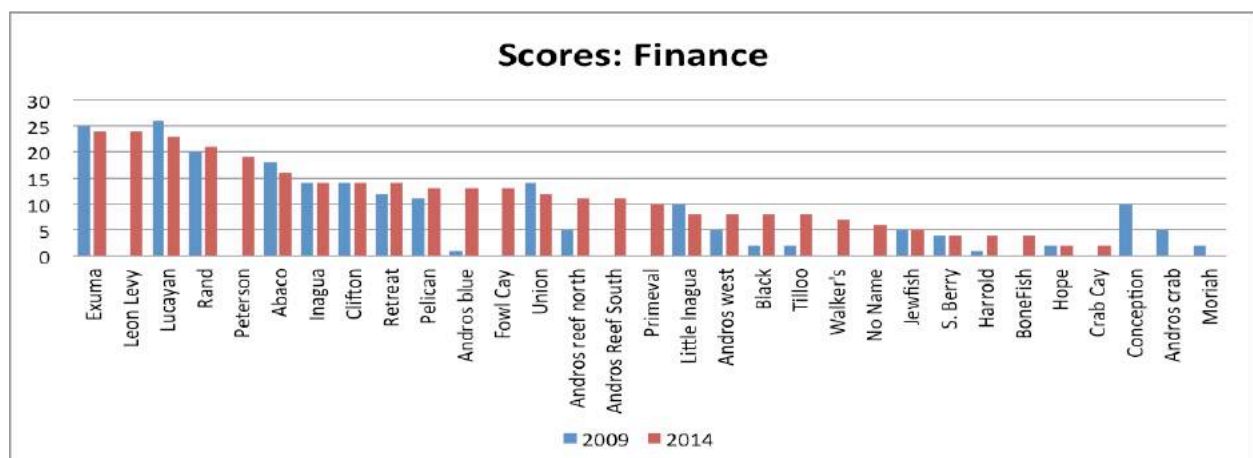
Do commercial operators contribute to PA management?

- 2009 responses: 2 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 22 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)

- Progress (2009-2014): Modest improvement. 19.2% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is the funding for the PA diversified?

- 2009 responses: 4 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 19 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 19.2% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PA Finances (*2014 baseline sites)

- High: Exuma Cays Land and Sea Park, Leon Levy Native Plant Preserve*, Lucayan National Park
- Medium: Rand Nature Centre, Peterson Cay National Park, Abaco, Inagua National Park, Clifton Heritage Park, The Retreat, Pelican Cays Land and Sea Park, Andros Blue Holes National Park, Fowl Cays National Park, Union Creek Reserve
- Low: Andros North Marine Park, Andros South Marine Park*, Primeval Forest National Park, Little Inagua, Andros West Side National Park, Black Sound Cay Reserve, Tilloo Cay Reserve, Walker's National Park, No Name Cay Marine Reserve, Exuma (Jewfish) Cay Marine Reserve, South Berry Islands Marine Reserve, Harrold and Wilson Pond National Park, Bonefish Pond National Park, Hope Great House and Marine Farm, Crab Cay Marine Reserve*, Conception Island National Park, Andros Crab Replenishment Park, Moriah Harbour Cay National Park

OPEN GROUP DISCUSSION: FINANCE

As noted above, the group chose to limit time spent discussing finance issues. BNT staff broadly recognize the need to both diversify PA management funding streams and take a close look at how funding is acquired (e.g. members, grants etc.). Some recommended creation of a BNT

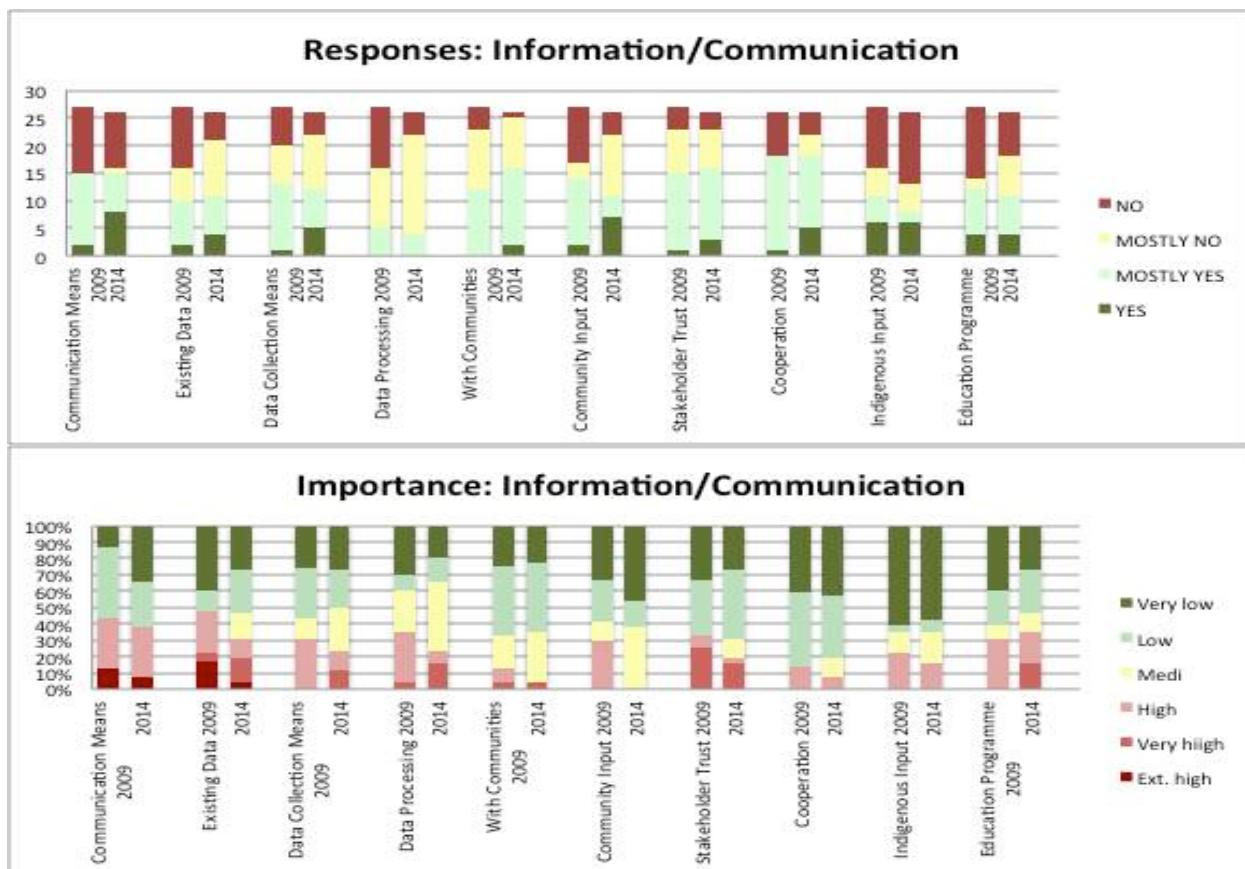
development team. Others noted that sustainable finance plans developed for the Exuma Cays Land and Sea Park (led by GEF-FSP) or South Berry Island Marine Reserve (led by TNC) serve as models for other PAs.

Assessment Framework Element – Processes

Sub-section: Information/communication

Questions (indicators)

- ⇒ Are there adequate means of communication between field and office staff?
- ⇒ Are existing ecological and socio-economic data and information adequate for management planning?
- ⇒ Are there adequate means of collecting new data and information?
- ⇒ Are there adequate systems for processing, analysing and maintaining data and information?
- ⇒ Is there effective communication with local communities?
- ⇒ Do local communities residing in or near the PA have input to management decisions?
- ⇒ Is there open communication and trust between local and/or indigenous people, stakeholders and PA managers?
- ⇒ Is there cooperation with adjacent land and water users?
- ⇒ Do indigenous and traditional peoples residing in, or regularly using, the PA have input to management decisions?
- ⇒ Is there a planned education programme linked to the objectives and needs?



Statistical Breakdown of Responses

Are there adequate means of communication between field and office staff?

- 2009 responses: 15 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 15 of 26 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 2.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are existing ecological and socio-economic data and information adequate for management planning?

- 2009 responses: 10 of 27 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 5 PAs responded 'no'
- Progress (2009-2014): Slight improvement. 5.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are there adequate means of collecting new data and information?

- 2009 responses: 13 of 27 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Decrease. -2.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are there adequate systems for processing, analysing and maintaining data and information?

- 2009 responses: 5 of 27 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 4 of 26 PAs responded 'yes' or 'mostly yes'; 18 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Decrease. -3.1 % of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there effective communication with local communities?

- 2009 responses: 12 of 27 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 4 PAs responded 'no'
- 2014 responses: 16 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 1 PA responded 'no'

- Progress (2009-2014): Modest improvement. 17.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Do local communities residing in or near the PA have input to management decisions?

- 2009 responses: 14 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Decrease. -9.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there open communication and trust between local and/or indigenous people, stakeholders and PA managers?

- 2009 responses: 15 of 27 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 4 PAs responded 'no'
- 2014 responses: 16 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 3 PAs responded 'no'
- Progress (2009-2014): Slight improvement. 6.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there cooperation with adjacent land and water users?

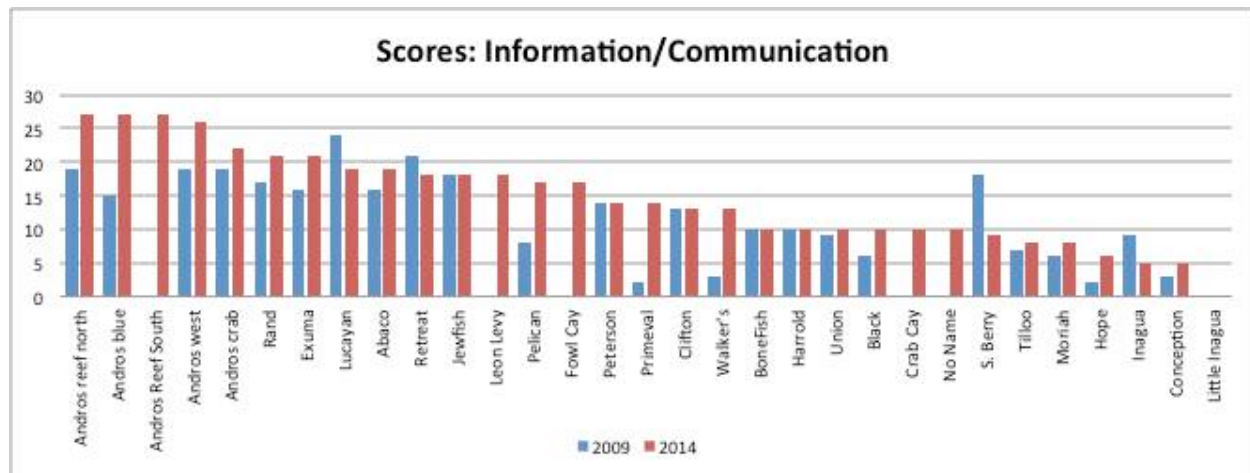
- 2009 responses: 18 of 26 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 8 PAs responded 'no'
- 2014 responses: 18 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): No improvement. 0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Low

Do indigenous and traditional peoples residing in, or regularly using, the PA have input to management decisions?

- 2009 responses: 11 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -10.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is there a planned education programme linked to the objectives and needs?

- 2009 responses: 12 of 27 PAs responded 'yes' or 'mostly yes'; 2 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -2.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PAs Communication & Information (*2014 baseline sites)

- High: Andros North Marine Park, Andros Blue Holes National Park, Andros South Marine Park*, Andros West Side National Park, Andros Crab Replenishment Park, Rand Nature Centre, Exuma Cays Land and Sea Park
- Medium: Lucayan National Park, Abaco, The Retreat, Exuma (Jewfish) Cay Marine Reserve, Leon Levy Native Plant Preserve*, Pelican Cays Land and Sea Park, Fowl Cays National Park*, Peterson Cay National Park, Primeval Forest National Park, Clifton Heritage Park, Walker's National Park
- Low: Bonefish Pond National Park, Harrold and Wilson Pond National Park, Union Creek Reserve, Black Sound Cay Reserve, Crab Cay Marine Reserve*, No Name Cay Marine Reserve*, South Berry Islands Marine Reserve, Tilloo Cay Reserve, Moriah Harbour Cay National Park, Hope Great House and Marine Farm, Inagua National Park, Conception Island National Park, Little Inagua National Park

OPEN GROUP DISCUSSION: INFORMATION/COMMUNICATION

The group highlighted information and communication additional priority areas that have recently realized significant advances yet remain a critical priority moving forward. New developments since 2009 include the following:

Educational materials

- Brochures and fact sheets for national parks, ecosystems and species

- Brochures for Peterson Cay National Park, Primeval National Park, Abaco National Park and Andros West Side National Park (some still in draft form)
- Discovery Club – materials adapted for different islands

Interpretive signage

- Lucayan National Park

Community outreach programmes

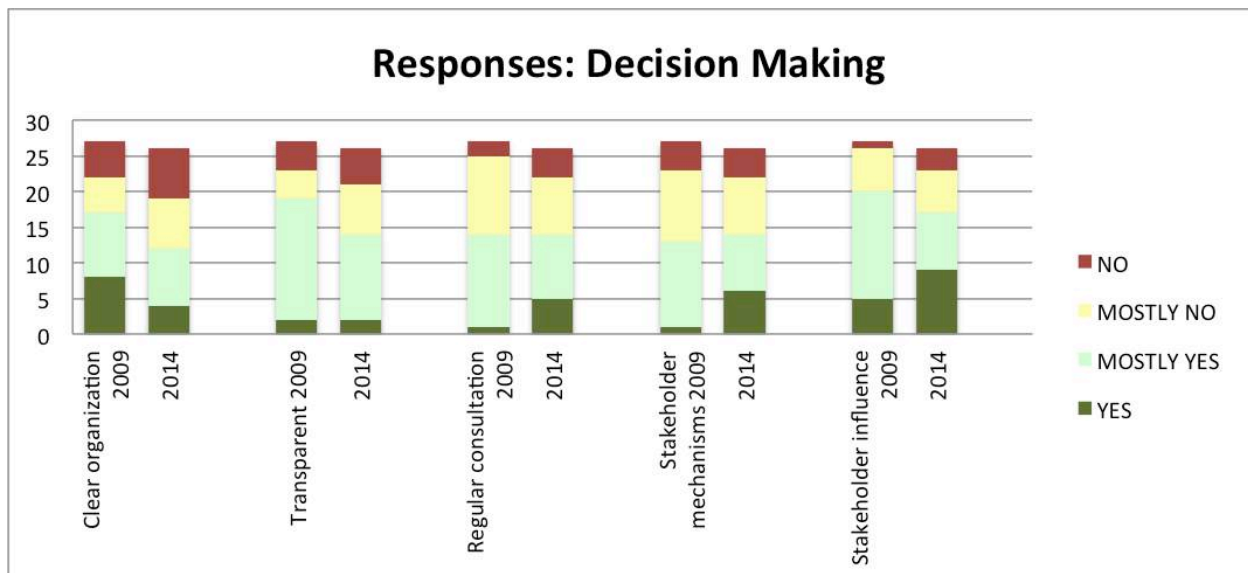
- Exuma Cays Land and Sea Park – GEF FSP funded sustainable tourism initiative
- Lucayan National Park – Community outreach associated with proposed expansion
- Peterson Cay National Park – Outreach with Tour and Dive Operators to discuss bylaws
- Abaco National Park – Community outreach associated with management plan development
- Pelican Cay Land and Sea Park – UNEP-CEP funded “Get to Know Your MPA” community workshop
- South Berry Island Marine Reserve – Development of communication plans
- San Salvador Island – Community outreach to support management plan development for all five of the island’s proposed PAs

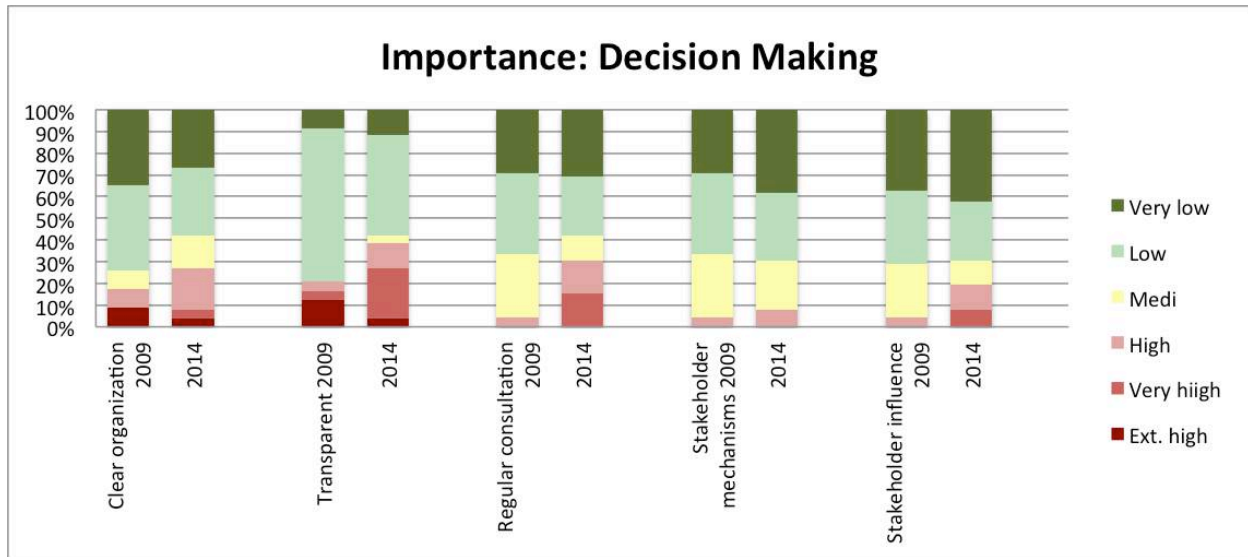
Assessment Framework Element – Processes

Sub-section: Management Decision Making

Questions (indicators)

- ⇒ Does the PA management system have clear internal organization?
- ⇒ Are management decisions clear, transparent and accountable?
- ⇒ Do PA staff regularly consult with key stakeholders when making important decisions?
- ⇒ Are there clear mechanisms for stakeholder participation in decision-making?
- ⇒ Does the planning process adequately allow for key stakeholders to influence the management plan?





Statistical Breakdown of Responses

Does the PA management system have clear internal organization?

- 2009 responses: 17 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 5 PAs responded 'no'
- 2014 responses: 12 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 7 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease; -16.81% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are management decisions clear, transparent and accountable?

- 2009 responses: 19 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 4 PAs responded 'no'
- 2014 responses: 14 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 5 PAs responded 'no'
- Progress (2009-2014): Decrease; -16.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Does PA staff regularly consult with key stakeholders when making important decisions?

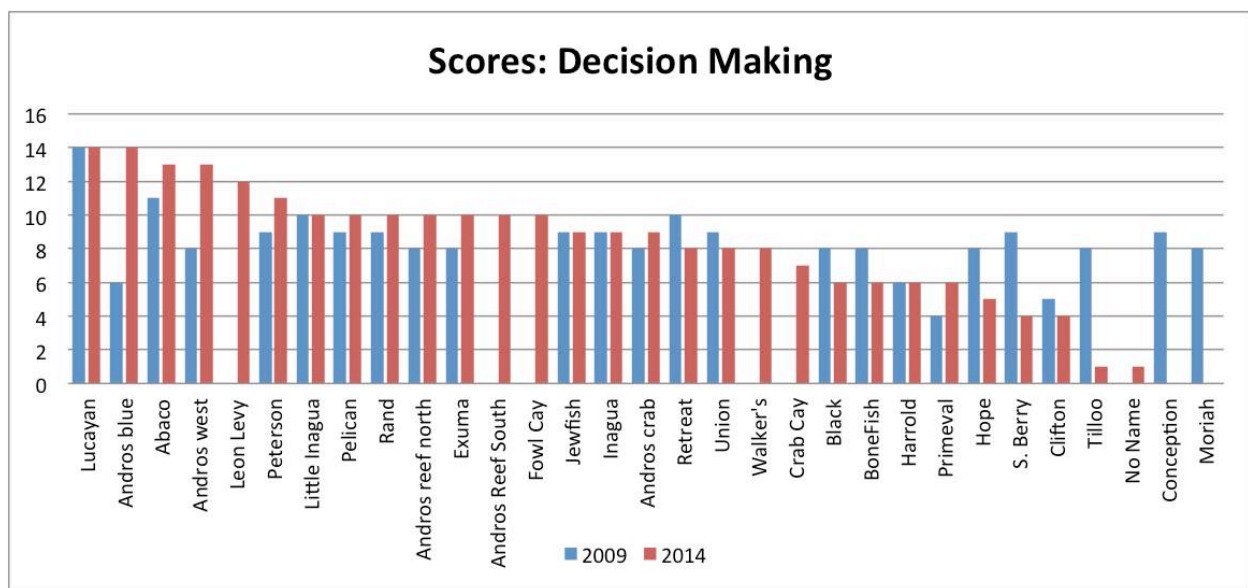
- 2009 responses: 14 of 27 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 2 PAs responded 'no'
- 2014 responses: 14 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Slight improvement; 2.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are there clear mechanisms for stakeholder participation in decision making?

- 2009 responses: 13 of 27 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 4 PAs responded 'no'
- 2014 responses: 14 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 4 PAs responded 'no'
- Progress (2009-2014): Slight improvement; 5.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Does the planning process adequately allow for key stakeholders to influence the management plan?

- 2009 responses: 20 of 27 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 1 PA responded 'no'
- 2014 responses: 17 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 3 PAs responded 'no'
- Progress (2009-2014): Decrease; -8.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium



Strength of Individual PAs Decision Making

- High: Lucayan National Park, Andros Blue Holes National Park, Abaco National Park, Andros West Side National Park, Leon Levy Native Plant Preserve*, Peterson Cay National Park
- Medium: Little Inagua National Park, Pelican Cays Land and Sea Park, Rand Nature Centre, Andros North Marine Park, Exuma Cays Land and Sea Park, Andros South Marine Park*, Fowl Cays National Park*, Exuma (Jewfish) Cay Marine Reserve, Inagua National Park, Andros Crab Replenishment Park, The Retreat, Union Creek Reserve, Walker's

National Park, Crab Cay Marine Reserve*, Black Sound Cay Reserve, Bonefish Pond National Park, Harrold and Wilson Pond National Park, Primeval Forest National Park

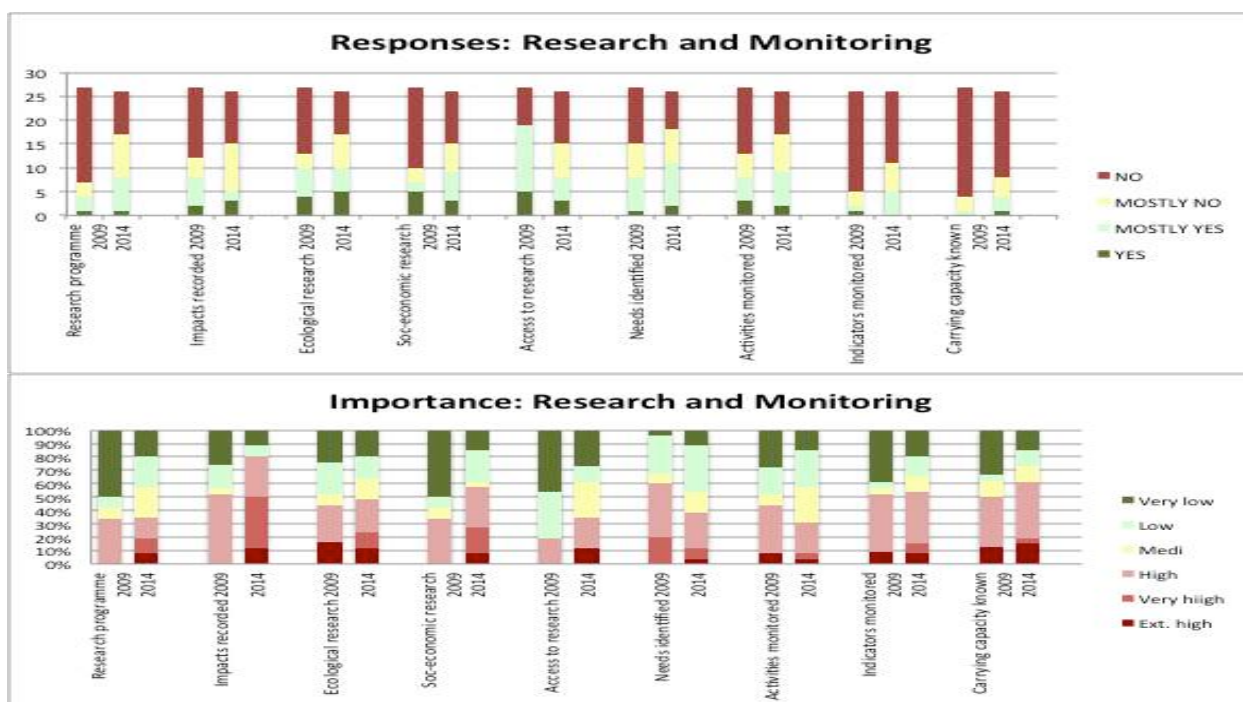
- Low: Hope Great House and Marine Farm, South Berry Islands Marine Reserve, Clifton Heritage Park, Tilloo Cay Reserve, No Name Cay Marine Reserve*, Conception Island National Park, Moriah Harbour Cay National Park

Assessment Framework Element – Processes

Sub-section: Research and monitoring

Questions (indicators)

- ⇒ Is there a programme of management-oriented survey and research work?
- ⇒ Are the impacts of legal and illegal uses of the PA accurately monitored and recorded?
- ⇒ Is research on key ecological issues consistent with the needs of the PA?
- ⇒ Is research on key social and economic issues consistent with the needs of the PA?
- ⇒ Do PA staff members have regular access to recent scientific research and advice?
- ⇒ Are critical research and monitoring needs identified and prioritized?
- ⇒ Are management activities monitored against performance?
- ⇒ Are biophysical, socioeconomic and governance indicators monitored and evaluated?
- ⇒ Have carrying capacity studies been conducted to determine sustainable use levels?



Statistical Breakdown of Responses

Is there a programme of management-oriented survey and research work?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 20 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)

- Progress (2009-2014): Modest improvement. 16.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are the impacts of legal and illegal uses of the PA accurately monitored and recorded?

- 2009 responses: 8 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -10.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Is research on key ecological issues consistent with the needs of the PA?

- 2009 responses: 10 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 1.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Is research on key social and economic issues consistent with the needs of the PA?

- 2009 responses: 7 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 8.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Do PA staff members have regular access to recent scientific research and advice?

- 2009 responses: 19 of 27 PAs responded 'yes' or 'mostly yes'; 0 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Decrease. -40.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are critical research and monitoring needs identified and prioritized?

- 2009 responses: 8 of 27 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)

- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 8 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 12.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are management activities monitored against performance?

- 2009 responses: 8 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement. 5.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

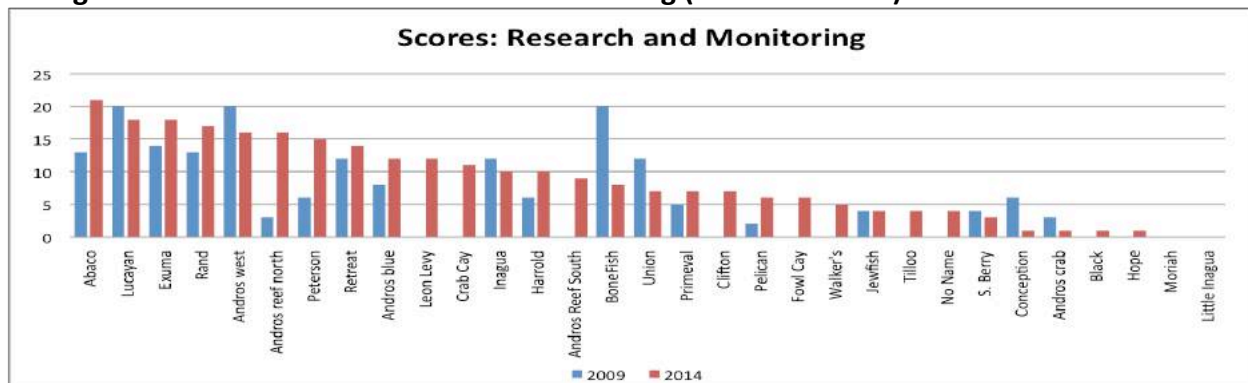
Are biophysical, socioeconomic and governance indicators monitored and evaluated?

- 2009 responses: 2 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 21 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 15 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 11.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Have carrying capacity studies been conducted to determine sustainable use levels?

- 2009 responses: 1 of 27 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 23 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 4 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 18 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement. 11.7% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Strength of Individual PA Research and Monitoring (*2014 baseline)



- High: Abaco National Park
- Medium: Lucayan National Park, Exuma Cays Land and Sea Park, Rand Nature Centre, Andros West Side National Park, Andros North Marine Park, Peterson Cay National Park, The Retreat, Andros Blue Holes National Park, Leon Levy Native Plant Preserve*, Crab Cay Marine Reserve*, Inagua National Park, Harrold and Wilson Pond National Park
- Low: Andros South Marine Park*, Bonefish Pond National Park, Union Creek Reserve, Primeval Forest National Park, Clifton Heritage Park, Pelican Cays Land and Sea Park, Fowl Cays National Park*, Walker's National Park, Exuma (Jewfish) Cay Marine Reserve, Tilloo Cay Reserve, No Name Cay Marine Reserve*, South Berry Islands Marine Reserve, Conception Island National Park, Andros Crab Replenishment Park, Black Sound Cay Reserve, Hope Great House and Marine Farm, Moriah Harbour Cay National Park, Little Inagua National Park

OPEN GROUP DISCUSSION: RESEARCH AND MONITORING

The BNT is placing renewed focus on the establishment of a centralized research and monitoring programme. Just as in 2009, this remains a high priority as very few PAs across the network have BNT led monitoring in place. Some sites are regularly studied by external research. BNT plans to implement monitoring programmes for priority species and habitats over the next 3-5 years in select PAs across the network. Pending available resources the programme will in time expand to include more sites. Available staff and ease of site access is expected to help prioritize when and where monitoring takes place. In addition, BNT is planning a large-scale coral reef restoration project at multiple sites and expects to continue studying Bonefish movement around Andros Island.

BEST, BNT and DMR, under the auspices of the National Implementation and Support Programme (NISP), have agreed that monitoring and evaluation of marine sites across the PA network will be grounded in the Atlantic and Gulf Rapid Reef Assessment (AGRAA) and Reef Check methodologies and associated indicators. To advance this approach, the GEF-FSP recently facilitated training in the AGRAA and Reef Check methodologies for more than 20 managers, wardens and conservation professionals. The NISP also considered linkages between MPAs and other coastal environments (e.g. wetlands, marshes, sand back, terrestrial areas etc.) and determined that common shore birds would serve as an effective species indicator.

In the past, monitoring of nationally significant species such as the Bahamas Parrot informed management plan development and fostered annual bird count surveys. BNT is considering development of a simple yet reliable annual survey in terrestrial PAs to monitor human impacts, hurricane damage and the general status and trends of wildlife populations. Since 2009, baseline coral reef and marine health monitoring has been conducted in the Exuma Cays Land and Sea Park. It is expected that the approach in Exuma will be replicated nationally at numerous other sites. During the workshop many noted the importance of using AGRAA, over the more simple Reef Check methodology, to conduct a 'Rapid Ecological Assessments' of multiple sites, and thereby broadly inform management planning across the network.

Assessment Framework Element - Outputs

Sub-section: Management Outputs

Questions (indicators)

- ⇒ Are threat prevention, detection and law enforcement outputs and activities sufficient?
- ⇒ Are site maintenance, restoration and mitigation outputs and activities sufficient?
- ⇒ Are wildlife and/or habitat management outputs and activities sufficient?
- ⇒ Are community outreach and education outputs and activities sufficient?
- ⇒ Are visitor and tourist management outputs and activities sufficient?
- ⇒ Is the development and management of PA infrastructure sufficient?
- ⇒ Are management planning and inventorying outputs and activities sufficient?
- ⇒ Are staff monitoring, supervision and evaluation activities sufficient?
- ⇒ Are staff training and development outputs and activities sufficient?
- ⇒ Are research and monitoring outputs and activities sufficient?



Statistical Breakdown of Responses

Are threat prevention, detection and law enforcement outputs and activities sufficient?

- 2009 responses: 9 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 3 PAs responded 'mostly no' and 12 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement; 9.0% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are site maintenance, restoration and mitigation outputs and activities sufficient?

- 2009 responses: 5 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 8 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement; 12.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are wildlife and/or habitat management outputs and activities sufficient?

- 2009 responses: 6 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 11 of 26 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement; 20.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are community outreach and education outputs and activities sufficient?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 9 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 7 of 26 PAs responded 'yes' or 'mostly yes'; 10 PAs responded 'mostly no' and 9 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement; 12.1% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are visitor and tourist management outputs and activities sufficient?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 18 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement; 8.3% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

- Level of importance (2014): Medium

Is the development and management of PA infrastructure sufficient?

- 2009 responses: 4 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 19 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 4 of 26 PAs responded 'yes' or 'mostly yes'; 8 PAs responded 'mostly no' and 14 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement; 0.6% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are management planning and inventorying outputs and activities sufficient?

- 2009 responses: 2 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 18 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 5 of 26 PAs responded 'yes' or 'mostly yes'; 11 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement; 11.5% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High

Are staff monitoring, supervision and evaluation activities sufficient?

- 2009 responses: 8 of 27 PAs responded 'yes' or 'mostly yes'; 1 PA responded 'mostly no' and 18 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 10 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 10 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Slight improvement; 8.8% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are staff training and development outputs and activities sufficient?

- 2009 responses: 6 of 27 PAs responded 'yes' or 'mostly yes'; 5 PAs responded 'mostly no' and 16 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 9 of 26 PAs responded 'yes' or 'mostly yes'; 6 PAs responded 'mostly no' and 11 PAs responded 'no' (High incidence of 'no' responses)
- Progress (2009-2014): Modest improvement; 12.4% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): Medium

Are research and monitoring outputs and activities sufficient?

- 2009 responses: 6 of 27 PAs responded 'yes' or 'mostly yes'; 4 PAs responded 'mostly no' and 17 PAs responded 'no' (High incidence of 'no' responses)
- 2014 responses: 6 of 26 PAs responded 'yes' or 'mostly yes'; 7 PAs responded 'mostly no' and 13 PAs responded 'no' (High incidence of 'no' responses)

- Progress (2009-2014): Slight improvement; 0.9% of respondent (individual PA) answers changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Level of importance (2014): High



Strength of Individual PA Outputs

- High: Leon Levy Native Plant Preserve*
- Medium: Rand Nature Centre, Abaco National Park, Lucayan National Park, Exuma Cays Land and Sea Park, The Retreat, Inagua National Park, Andros Blue Holes National Park, Union Creek Reserve, Pelican Cays Land and Sea Park, Andros West Side National Park, Bonefish Pond National Park, Fowl Cays National Park*, Andros North Marine Park, Peterson Cay National Park, Andros South Marine Park*
- Low: Harrold and Wilson Pond National Park, Primeval Forest National Park, No Name Cay Marine Reserve*, Clifton Heritage Park, Black Sound Cay Reserve, Crab Cay Marine Reserve*, Walker's National Park, Hope Great House and Marine Farm, Andros Crab Replenishment Park, South Berry Islands Marine Reserve, Exuma (Jewfish) Cay Marine Reserve, Moriah Harbour Cay National Park, Little Inagua National Park, Tilloo Cay Reserve, Conception Island National Park

PROTECTED AREA MANAGEMENT OUTCOMES

Overall Management Effectiveness

The following results compile all questionnaire responses to evaluate overall management effectiveness for each PA and for the major assessment themes (e.g., PA objectives, legal security, etc.). The graphs of overall management effectiveness (first graph) and management progress (second graph) from 2009 to 2014 for each PA help identify the most and least well managed sites. The overall management effectiveness graph of major assessment themes (third graph) compares relative strengths and weaknesses; however, the graph does not convey outliers well (e.g., an extremely well or poorly managed PA).

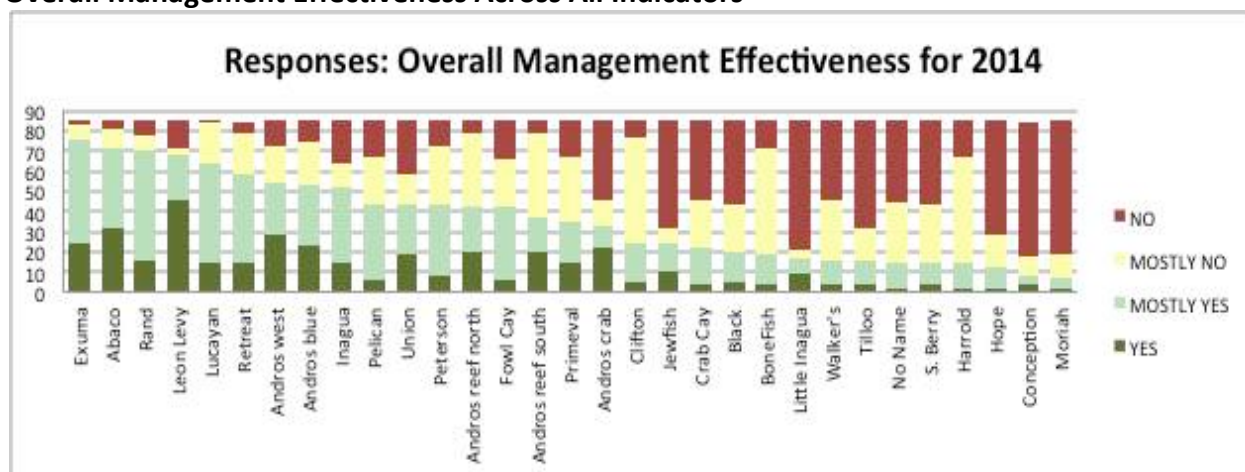
Measuring Overall Management Effectiveness for Each PA

- High: At least 66.67% of responses were 'Yes' or 'Mostly Yes'
- Medium: 34% to 66.67% of responses were 'Yes' or 'Mostly Yes'
- Low: Less than 34% or responses were 'Yes' or 'Mostly Yes'

Measuring Progress in Overall Management Effectiveness

- Significant improvement: greater than 30% increase in the number of responses that changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Modest improvement: 10% - 30% increase in the number of responses that changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Slight improvement: 1% - 10% increase in the number responses that changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- No improvement: 0% increase in the number responses that changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'
- Decrease in management effectiveness: Any increase in the number of responses that changed from 'yes' or 'mostly yes' to 'no' or 'mostly no'
- Note: A "high incidence of 'no' responses" means at least half of the responses were 'no' responses (does not include 'mostly no' responses)

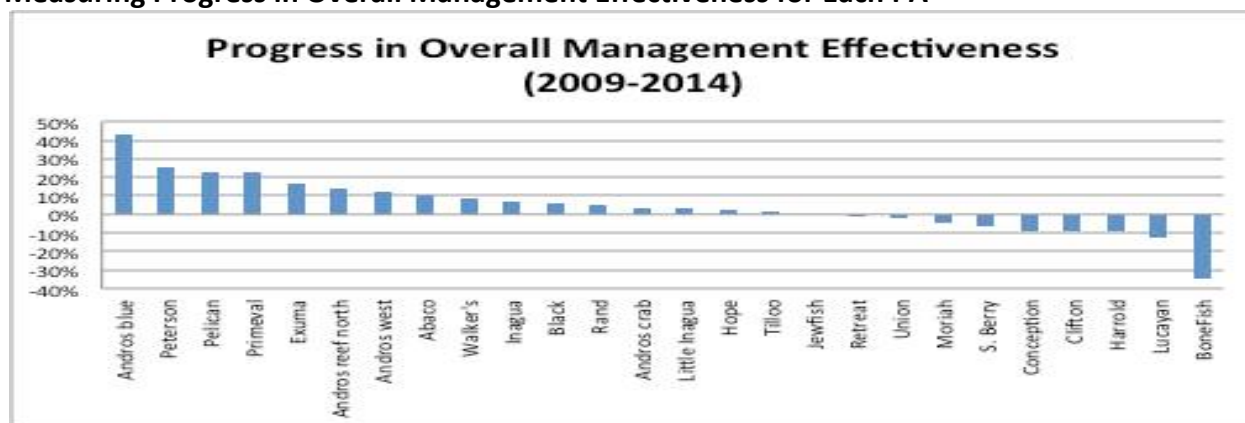
Overall Management Effectiveness Across All Indicators



Statistical Breakdown of Responses

- High: 6 PAs had a high number of 'Yes' or 'Mostly Yes' responses (Exuma Cays Land and Sea Park, Abaco National Park, Rand Nature Centre, Leon Levy Native Plant Preserve, Lucayan National Park, and The Retreat)
- Medium: 11 PAs had a medium number of 'Yes' or 'Mostly Yes' responses (Andros West Side National Park, Andros Blue Holes National Park, Inagua National Park, Pelican Cays Land and Sea Park, Union Creek Reserve, Peterson Cay National Park, Andros North Marine Park, Fowl Cays National Park, Andros Reef South Marine Park, Primeval Forest National Park, and Andros Crab Replenishment Park)
- Low: 14 PAs had a low number of 'Yes' or 'Mostly Yes' responses (Clifton Heritage Park, Exuma (Jewfish) Cay Marine Reserve, Crab Cay Marine Reserve, Black Sound Cay Reserve, Bonefish Pond National Park, Little Inagua National Park, Walker's National Park, Tilloo Cay Reserve, No Name Cay Marine Reserve, South Berry Islands Marine Reserve, Harrold and Wilson Pond National Park, Hope Great House and Marine Farm, Conception Island National Park, and Moriah Harbour Cay National Park)

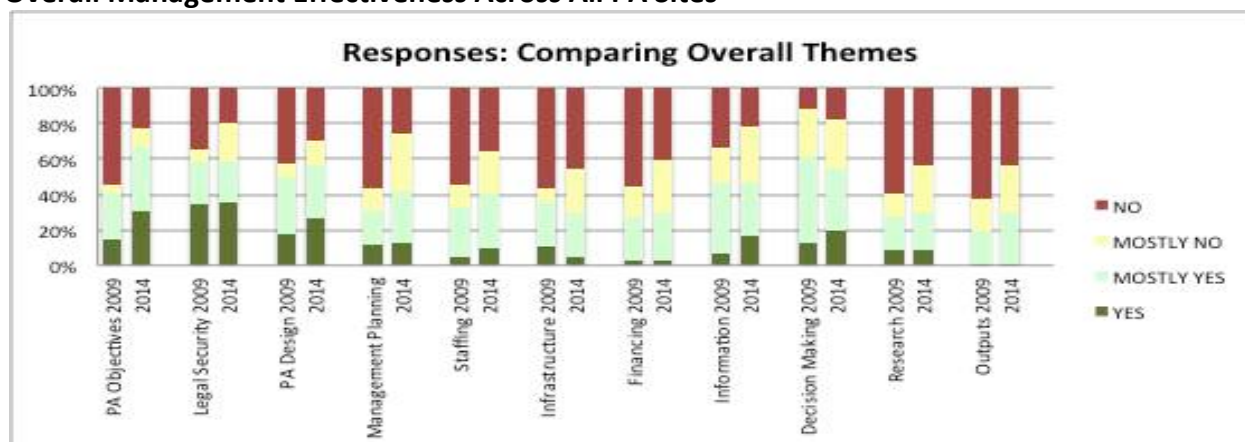
Measuring Progress in Overall Management Effectiveness for Each PA



Statistical Breakdown of Responses

- Significant improvement: 1 PA showed significant improvement in overall management effectiveness (Andros Blue Holes National Park = 43.5% increase)
- Modest improvement: 7 PAs modestly improved in overall management effectiveness (Peterson Cay National Park, Pelican Cays Land and Sea Park, Primeval Forest National Park, Exuma Cays Land and Sea Park, Andros North Marine Park, Andros West Side National Park, and Abaco National Park)
- Slight improvement: 8 PAs slightly improved in overall management effectiveness (Walker's National Park, Inagua National Park, Black Sound Cay Reserve, Rand Nature Centre, Andros Crab Replenishment Park, Little Inagua National Park, Hope Great House and Marine Farm, and Tilloo Cay Reserve)
- No improvement: 1 PA had no improvement in overall management effectiveness (Exuma 'Jewfish' Cay Marine Reserve)
- Decrease in management effectiveness: 9 PAs showed a decrease in overall management effectiveness (The Retreat, Union Creek Reserve, Moriah Harbour Cay National Park, South Berry Islands Marine Reserve, Conception Island National Park, Clifton Heritage Park, Harrold and Wilson Pond National Park, Lucayan National Park, and Bonefish Pond National Park)

Overall Management Effectiveness Across All PA Sites



Breakdown of Statistical Responses

PA Objectives

- 2009 responses: 66 of 162 responses were 'yes' or 'mostly yes'; 8 responses were 'mostly no' and 88 responses were 'no' (high incidence of 'no' responses)
- 2014 responses: 104 of 156 responses were 'yes' or 'mostly yes'; 17 responses were 'mostly no' and 35 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Modest improvement. 25.9% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Legal Security

- 2009 responses: 126 of 214 responses were 'yes' or 'mostly yes'; 13 responses were 'mostly no' and 75 responses were 'no'
- 2014 responses: 120 of 207 responses were 'yes' or 'mostly yes'; 46 responses were 'mostly no' and 41 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Decrease in management effectiveness. -0.9% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

PA Design

- 2009 responses: 66 of 133 responses were 'yes' or 'mostly yes'; 11 responses were 'mostly no' and 56 responses were 'no'
- 2014 responses: 74 of 130 responses were 'yes' or 'mostly yes'; 17 responses were 'mostly no' and 39 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Slight improvement. 7.3% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Management Planning

- 2009 responses: 73 of 242 responses were 'yes' or 'mostly yes'; 32 responses were 'mostly no' and 137 responses were 'no' (high incidence of 'no' responses)
- 2014 responses: 96 of 234 responses were 'yes' or 'mostly yes'; 79 responses were 'mostly no' and 59 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Modest improvement. 10.9% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Staffing

- 2009 responses: 61 of 189 responses were 'yes' or 'mostly yes'; 25 responses were 'mostly no' and 103 responses were 'no' (high incidence of 'no' responses)
- 2014 responses: 74 of 182 responses were 'yes' or 'mostly yes'; 43 responses were 'mostly no' and 65 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Slight improvement. 8.4% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Infrastructure

- 2009 responses: 45 of 125 responses were 'yes' or 'mostly yes'; 9 responses were 'mostly no' and 71 responses were 'no' (high incidence of 'no' responses)

- 2014 responses: 39 of 130 responses were 'yes' or 'mostly yes'; 32 responses were 'mostly no' and 59 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Decrease in management effectiveness. -6.0% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Financing

- 2009 responses: 79 of 286 responses were 'yes' or 'mostly yes'; 48 responses were 'mostly no' and 159 responses were 'no' (high incidence of 'no' responses)
- 2014 responses: 83 of 285 responses were 'yes' or 'mostly yes'; 87 responses were 'mostly no' and 115 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Slight improvement. 1.5% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Information/Communication

- 2009 responses: 125 of 269 responses were 'yes' or 'mostly yes'; 53 responses were 'mostly no' and 91 responses were 'no'
- 2014 responses: 122 of 260 responses were 'yes' or 'mostly yes'; 82 responses were 'mostly no' and 56 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Slight improvement. 0.5% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Management Decision Making

- 2009 responses: 83 of 135 responses were 'yes' or 'mostly yes'; 36 responses were 'mostly no' and 16 responses were 'no'
- 2014 responses: 71 of 130 responses were 'yes' or 'mostly yes'; 36 responses were 'mostly no' and 23 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Decrease in management effectiveness. -6.9% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Research and Monitoring

- 2009 responses: 67 of 242 responses were 'yes' or 'mostly yes'; 31 responses were 'mostly no' and 144 responses were 'no' (high incidence of 'no' responses)
- 2014 responses: 69 of 234 responses were 'yes' or 'mostly yes'; 64 responses were 'mostly no' and 101 responses were 'no'
- Overall progress in management effectiveness (2009-2014): Slight improvement. 1.8% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Management Outputs

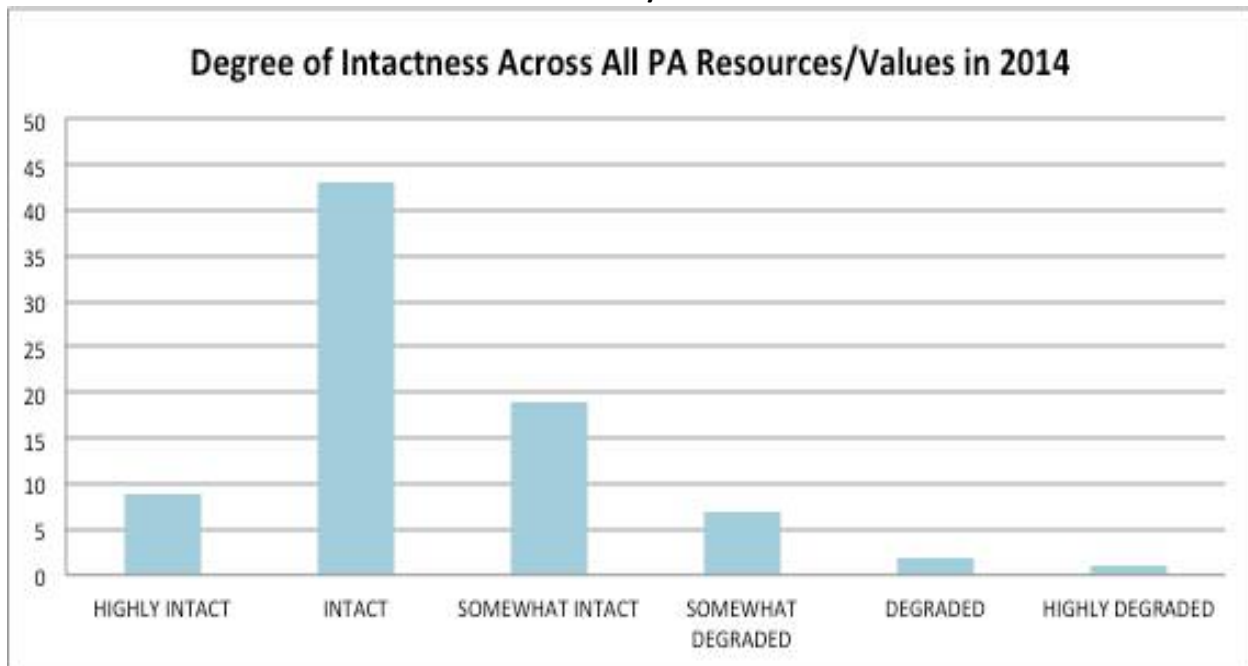
- 2009 responses: 54 of 269 responses were 'yes' or 'mostly yes'; 48 responses were 'mostly no' and 167 responses were 'no' (high incidence of 'no' responses)
- 2014 responses: 77 of 260 responses were 'yes' or 'mostly yes'; 70 responses were 'mostly no' and 113 responses were 'no'

- Overall progress in management effectiveness (2009-2014): Modest improvement. 9.5% of responses changed from 'no' or 'mostly no' to 'yes' or 'mostly yes'

Outcomes Results – Resource Condition

Respondents identified up to 5 key PA resources or 'values' (e.g., coral reefs, mangroves, marine mammals, shorebirds, fish, and recreational boating). Respondents could identify the same resource/value for multiple PAs. Respondents then evaluated how intact those resources/values were in a given PA.

Level of intactness for all identified PA resources/values



Statistical Breakdown of Responses

- Highly intact: 9 of 81 (11%) identified PA resources/values are considered highly intact.
- Intact: 43 of 81 (53.1%) identified PA resources/values are considered intact.
- Somewhat intact: 19 of 81 (23.5%) identified PA resources/values are considered somewhat intact.
- Somewhat degraded: 7 of 81 (8.6%) identified PA resources/values are considered somewhat degraded.
- Degraded: 2 of 81 (2.5%) identified PA resources/values are considered degraded.
- Highly degraded: 1 of 81 (1.2%) identified PA resources/values is considered highly degraded.
- Note: These results do not include the 5 added sites (i.e., Andros Reef South Marine Park, Leon Levy Native Plant Preserve, Fowl Cays National Park, Crab Cay Marine Reserve, and No Name Cay Marine Reserve). For these sites, respondents identified 15 resources/values across all five sites. 13.3% of identified resources/values were highly intact, 33.3% were considered intact, and 53.3% were somewhat intact.

VI. PRIORITIZATION, THRESHOLD IDENTIFICATION AND PROJECT PLANNING

Following open group discussion of priority topics, each island cluster ranked the overall urgency of each topic relative to their respective PAs. Similar to the 2009 workshop, the ranking exercise helped participants identify the most pressing issues currently facing each PA, or set of PAs, and then prioritize needed actions to improve management effectiveness. Participants considered '1' as most urgent and '6' as least urgent. Ultimately, the group considers all activities listed in table 1 below to be important.

Table 1. Priority PA Topics

Protected Areas (by island)	Management planning	Staffing	PA Design	Information and Communication	Infrastructure	Research and Monitoring
<i>Grand Bahama</i>						
Rand Nature Centre	4	3	6	2	1	5
Peterson Cay National Park	3	4	1	2	5	6
Lucayan National Park	1	3	4	5	2	6
<i>Abaco</i>						
Walker's Cay National Park	4	1	6	3	5	2
Black Sound Cay National Reserve	4	5	6	2	1	3
Tilloo Cay Reserve	3	6	4	2	5	1
Pelican Cay Land and Sea Park	1	2	5	3	6	4
Abaco National Park	6	2	5	3	1	4
Fowl Cays National Park	1	2	5	3	6	4
<i>Andros</i>						
Andros Reef North Marine Park	5	4	3	1	6	2
Andros Reef South Marine Park	5	4	3	1	6	2
Blue Holes National Park	1	2	6	5	3	4
Crab Replenishment Reserve	1	5	3	2	6	4
West Side National Park	5	1	6	4	2	3
<i>New Providence</i>						
The Retreat	6	1	5	2	4	3
Harrold and Wilson Ponds National Park	1	2	5	3	6	4
Bonefish Pond National Park	4	1	5	2	3	6
Primeval Forest National Park	3	1	6	2	5	4
Clifton Heritage Park	1	6	2	5	3	4
<i>Exuma</i>						
Exuma Cays Land and Sea Park	4	2	6	1	5	3
Moriah Harbour Cay National Park	4	3	6	1	2	5

<i>Conception Island</i>						
Conception Island National Park	4	1	6	2	3	5
<i>Little Inagua Island</i>						
Little Inagua National Park	1	6	3	2	5	4
<i>Great Inagua</i>						
Union Creek Reserve	1	6	3	2	5	4
Inagua National Park	1	6	5	3	2	4
<i>Eleuthra</i>						
Leon Levy Native Plant Preserve	1	5	6	2	4	3
<i>Crooked Island</i>						
Hope Great House and Marine Farm	4	5	6	2	1	3
<i>DMR Marine PAs</i>						
Crab Cay Marine Reserve	4	5	1	3	6	2
Exuma (Jewfish) Cay Marine Reserve	4	5	1	3	6	2
No Name Cay Marine Reserve	4	5	1	3	6	2
South Berry Island Marine Reserve	5	1	4	2	6	3

Island cluster groups subsequently reflected on their respective ranking results in order to identify improvement thresholds and needed actions to improve management. The facilitator reminded the group that high priority issues, identified in their questionnaire responses, should also have clear next steps for improvement. Viewed in this context, thresholds represent outputs or achievements that advance PAs to a higher degree of management effectiveness. Improvement is demonstrated when respondents can change answers in the questionnaire from ‘no’ or ‘mostly no’ to ‘yes’ or ‘mostly yes.’ Focusing on their respective PAs, the group essentially asked itself “where do we want to be” and “how will we get there” in order to generate appropriate thresholds, better understand needed actions and then brainstorm project concepts that will improve management. Initial project concepts are described in table 2 below.

Table 2. Initial Project Concepts

Exuma Cays Land and Sea Park Planner: Lindy Knowles			
Priority issue	Improvement threshold	Needed Actions	Project Concept
Information and communication	<ul style="list-style-type: none"> Enhanced communication between PA staff and neighboring islands Acquisition of a central server for data collection and 	<ul style="list-style-type: none"> Develop a centralized data collection system and policies for housing data Communicate effectively with communities 	<ul style="list-style-type: none"> Develop phone/tablet app that can track information (e.g. data, sightings of rare species) and upload to BNT server

	housing	<ul style="list-style-type: none"> • Build trust with local communities 	
Staffing	<ul style="list-style-type: none"> • New staff hired • New/existing staff receive regular training 	<ul style="list-style-type: none"> • Develop long-term training and internship programme • Develop human resources strategy for recruitment of qualified staff 	<ul style="list-style-type: none"> • Develop BNT wide human resources training plan
Research and monitoring	<ul style="list-style-type: none"> • Carrying capacity determined for each park in system 	<ul style="list-style-type: none"> • Hire a consultant • Conduct site visits • Collect necessary data 	<ul style="list-style-type: none"> • Conduct carrying capacity studies
Inagua National Park Planners: Casper Burrows and Henry Nixon			
Priority issue	Improvement threshold	Needed Actions	Project Concept
Management planning	<ul style="list-style-type: none"> • Comprehensive management plan developed and implemented • Comprehensive site inventory conducted 	<ul style="list-style-type: none"> • Secure expert support to develop plan • Conduct natural and cultural resource assessments 	<ul style="list-style-type: none"> • Develop management plan and conduct site surveys
Infrastructure	<ul style="list-style-type: none"> • Vehicles ensure easy warden movement around park • Fully functional office building 	<ul style="list-style-type: none"> • Purchase equipment: • Vehicles (trucks/golf carts) • Office equipment (e.g. computers, printers) • Tools 	
Information and communication	<ul style="list-style-type: none"> • Ability to communicate island wide 	<ul style="list-style-type: none"> • Acquire long-range radios/satellite phones 	
Inagua National Park Planners: Casper Burrows, Henry Nixon, A'nyce Munroe			
Priority issue	Improvement threshold	Needed Actions	Project Concept
Management planning	<ul style="list-style-type: none"> • Comprehensive management plan developed and 	<ul style="list-style-type: none"> • Secure expert support to develop plan 	<ul style="list-style-type: none"> • Develop management plan and conduct site

	<ul style="list-style-type: none"> implemented • Comprehensive site inventory conducted 	<ul style="list-style-type: none"> • Conduct natural and cultural resource assessments 	surveys
Infrastructure	<ul style="list-style-type: none"> • Vehicles ensure easy warden movement around park • Fully functional office building 	<ul style="list-style-type: none"> • Purchase equipment: • Vehicles (trucks/golf carts) • Office equipment (e.g. computers, printers) • Tools 	
Information and communication	<ul style="list-style-type: none"> • Ability to communicate island wide 	<ul style="list-style-type: none"> • Acquire long-range radios/satellite phones 	
Harrold and Wilson Ponds National Park			
Planners: Cameron Saunders, Shenica Campbell, Steven Wright			
Priority issue	Improvement threshold	Needed Actions	Project Concept
Management planning	<ul style="list-style-type: none"> • PA management plan 	<ul style="list-style-type: none"> • Consultant support • Develop and secure approval management plan approval • Begin implementation 	<ul style="list-style-type: none"> • Conduct collaborative management planning process with Global Parks or other support
Staffing	<ul style="list-style-type: none"> • Two staff persons hired for regular park maintenance 	<ul style="list-style-type: none"> • Regular staff training 	
Bonefish Pond National Park			
Planners: Cameron Saunders, Shenica Campbell, Steven Wright			
Staffing	<ul style="list-style-type: none"> • Two full time park wardens hired 	<ul style="list-style-type: none"> • Conduct strategic staff training (i.e. core competencies) 	<ul style="list-style-type: none"> • Initial training focused on infrastructure plans/development
Information and communication	<ul style="list-style-type: none"> • Increase in number of visitors to park • Increase in park programmes/activities 	<ul style="list-style-type: none"> • Prepare media tool kit (e.g. press release and outreach materials) 	<ul style="list-style-type: none"> • Park education and outreach programme
Fowl Cays National Park/Pelican Cays Land and Sea Park			
Planners: David Knowles, Lakeshia Anderson			
Management	<ul style="list-style-type: none"> • Draft management 	<ul style="list-style-type: none"> • Conduct public 	

planning	plan completed (final) and distributed	<ul style="list-style-type: none"> review process • Incorporate feedback and print/publish • Distribute to stakeholders 	
Staffing	<ul style="list-style-type: none"> • Effective enforcement 		
Information and communication	<ul style="list-style-type: none"> • Completed communication strategy 		
Crab Cay Marine Reserve			
Planners: Frederick Arnett			
PA design	<ul style="list-style-type: none"> • Update PA plan based on best available science and to better reflect biodiversity in area • Expand PA boundaries to include areas of high biodiversity 	<ul style="list-style-type: none"> • Apply Atlantic and Gulf Rapid Reef Assessment (AGRRA) methodology to conduct site surveys 	
Clifton Heritage National Park			
Planner: Sherlyn Albury			
Management planning	<ul style="list-style-type: none"> • Comprehensive long-term management plan 	<ul style="list-style-type: none"> • Acquire data on park resources • Conduct policing • Establish park entrance fee • Monitor to inform management 	
PA design	<ul style="list-style-type: none"> • Zoning plan marking restricted use areas 	<ul style="list-style-type: none"> • Creation of different zones (e.g. historical, ecological) • Develop restricted use protocols 	<ul style="list-style-type: none"> • Map and create PA zones and visitor pathways
Infrastructure	<ul style="list-style-type: none"> • Comprehensive infrastructure plan for new design and upkeep of existing structures 	<ul style="list-style-type: none"> • Develop financial plan • Build visitor facilities • Develop park pathways • Improve staff 	

		<ul style="list-style-type: none"> capacity • Maintain current infrastructure • Acquire golf carts 	
Leon Levy Native Plant Reserve Planner: Falon Cartwright			
Management planning	<ul style="list-style-type: none"> • Comprehensive management plan developed, implemented and supported by stakeholders • Workplan developed to identify specific targets and meet management goals 	<ul style="list-style-type: none"> • Identify core vision and mission statements • Initiate dialogue with key stakeholders • Secure funding for staff/consultants to begin planning process 	<ul style="list-style-type: none"> • Develop and implement park management plan
Information and communication	<ul style="list-style-type: none"> • Education plan (curriculum) developed and offered to school groups • Outreach programme developed and implemented 	<ul style="list-style-type: none"> • Assess status of current education plans and already developed resources • Finalize draft education booklets and resources 	<ul style="list-style-type: none"> • Develop comprehensive education plan
Research and monitoring	<ul style="list-style-type: none"> • Research plan developed and funding secured for implementation 		
Andros North and South Marine Reserves Planners: Tavares Thompson and Leslie Brace			
Management planning	<ul style="list-style-type: none"> • Comprehensive management plan finalized, supported by community and implemented • Conduct Blue Hole site inventory 	<ul style="list-style-type: none"> • Collect information • Consult communities • Generate data to rationalize park management 	<ul style="list-style-type: none"> • Management plan development
Staffing	<ul style="list-style-type: none"> • Warden dedicated to land park areas • Hired education officers 	<ul style="list-style-type: none"> • Identify and recruit volunteers and teachers to serve as education officers 	

		<ul style="list-style-type: none"> • Develop education programme to promote park development, ecotourism and core programmes • Subcontract trail maintenance 	
Infrastructure	<ul style="list-style-type: none"> • Creation of areas for conservation, recreational use, camping 	<ul style="list-style-type: none"> • Develop rest stations • Develop campsites, including water and compost • Enhance property maintenance 	<ul style="list-style-type: none"> • Infrastructure development
Information and communication	<ul style="list-style-type: none"> • Educate community (review/reinforce) on demarcation buoy purpose 	<ul style="list-style-type: none"> • Conduct community outreach (open dialogue on site purpose and need to protect entire reef) • Identify buoys • Produce educational flyers 	<ul style="list-style-type: none"> • Community outreach and education
Research and monitoring	<ul style="list-style-type: none"> • Electronic database format • Readily accessible information (in Andros) • Bound copies • Files/documentation 	<ul style="list-style-type: none"> • Acquire data from local NGOs and field stations • Look for scientific journal sites • Build journal collection, especially BNT facilitated work • Copy and bind journals 	
PA design	<ul style="list-style-type: none"> • Expand PA boundaries to protect entire reef from damage 	<ul style="list-style-type: none"> • Conduct community outreach • Distribute draft management plan • Keep reef maps on hand • Highlight key coral species (e.g. Elkhorn) 	

VII. RECOMMENDATIONS AND NEXT STEPS

The following recommendations and associated next steps are presented to further advance management effectiveness across the Bahamas PA network. There is no priority or logical sequence to the list below; each recommendation should be given equal consideration and may be expected to build individual competency and institutional capacity for better management. That said, many of the recommendations can and should be integrated and thereby mutually reinforcing. The list below is also not necessarily comprehensive in nature. Rather these recommendations emanate from the 2014 workshop outputs and serve as a springboard to continue improving overall performance across the network.

Utilize evaluation results to further explore current performance and inform future planning

At the workshop the group focused discussion on priority topics related to planning, inputs, processes and outputs, leaving less time to consider PA context, outputs and outcomes. Similarly, exploration of progress achieved over the last five years received more time than examination of current systemic weaknesses and associated needs. Participants also noted that past, and even some present, questionnaire responses appeared inaccurate and thus warranted closer consideration. This report, combined with the “Master Workbooks”, provides BEST and BNT with a robust data set to further explore strengths, weaknesses and opportunities for improvement across the network. Finally, management effectiveness evaluations commonly benefit when respondents hail from different sectors of society. Results of the 2014 evaluation may be further refined with private sector and NGO partners unable to attend the workshop.

Integrate individual PA evaluation results into annual work plan development

Workshop participants made significant progress in identifying and prioritizing actions that will improve management effectiveness at individual PA sites across the network. Staff representing island cluster groups commonly has the most insightful understanding of the challenges, capacity limitations and opportunities at their respective PAs. The 2014 evaluation results provide PA managers and wardens a timely opportunity to integrate work on improvement thresholds, needed actions and project concepts into 2015 workplans and beyond. As a starting point, managers and wardens who attended the workshop should revisit their evaluation responses and identify issues that are a high priority yet scored low in respect to current performance. These priority issues, and associated needs to improve performance, should directly inform upcoming workplan development in coming months and years.

Consider development of simpler management effectiveness evaluation tools

While generally recognizing the benefits of comprehensive management effectiveness evaluation, many workshop participants suggested that development of a shorter assessment tool is warranted. This is especially true for managers interested to conduct frequent evaluation of management performance. Moving forward, senior Bahamian conservation leaders may balance application of the comprehensive 2009/2014 assessment tool every 3 – 5 years with application of simpler tools for annual or biennial use. Donor considerations also factor into what approaches are used for future management effectiveness evaluation.

Use workshop action planning as a springboard to advance programme/project development

Linked to the annual workplan exercise, individual BNT staff and island cluster groups are well positioned to build upon their initial work of identifying PA improvement thresholds, needed actions and project concepts. Additional action planning will guide future work and may serve to leverage new resources for critically needed programmes and projects at individual PA sites and across the network. The following questions may help further flesh out project concepts highlighted in table 2:

- What is the project goal?
- Who needs to be involved and what role will they play?
- What human, technical and financial resources are needed?
- What are the needed action steps and what is the associated timeline?
- How will success be measured?

Ensure cross-pollination of outputs from the evaluation and the recent IUCN workshops

The IUCN PA management categories provide a standardized approach to conceptualize, plan, designate and manage a range of PA types. Similarly, management effectiveness evaluation informs PA design, management planning and development of strategies to achieve goals and objectives. The 2014 evaluation results demonstrate that many managers and wardens still do not consider development of clear management objectives a high priority. This key finding warrants renewed and continual focus on developing clear management objectives for individual PAs and across the network. As senior BNT staff and managers conduct the annual PA workplan exercise, it is important to compare outputs of this evaluation to the IUCN workshop results to identify the most appropriate activities that guide future management efforts.

Place renewed focus on development and implementation of sustainable finance plans

As noted, Bahamian conservation leaders understand well that continual development and/or refinement of sustainable finance plans and PA business plans is an integral component to building management capacity across the network. The need for innovative fundraising holds particular relevance as BNT seeks to provide the necessary budget resources that strengthen institutional capacity and enable active management. In addition to ensuring implementation and replication of existing sustainable finance plans (e.g. Exuma), BNT may consider building an in-house development team to support fundraising. Establishment of the Bahamas PA Fund and the Caribbean Biodiversity Fund, as well as support through the GEF small grants programme, may provide near term opportunities as the BNT and DMR, and their respective partners, craft innovative programmes and projects that aim to improve management effectiveness. A growing body of sustainable financing literature, case studies and financial modeling tools are available to interested parties.

Prioritize development of a centralized research and monitoring programme

As noted by many workshop participants, development of a BNT led research and monitoring programme remains a high priority. Regular monitoring is critical to generate information that informs ongoing management effectiveness evaluation. BNT should continue to develop biophysical, socioeconomic and governance indicators that guide monitoring, and correlate these indicators to human activities and associated impacts (e.g. fishing and tourism pressure)

within and outside select PA sites.¹⁰ Notwithstanding the challenge of financing a research and monitoring programme, BNT is well positioned to build on the baseline coral reef and marine health assessment work conducted in the Exuma Cays Land and Sea Park. That said, recent staff turnover may require additional trainings to ensure that a range of professionals have and maintain competencies to implement robust monitoring in both terrestrial and marine sites.

Re-visit PA design in the context of climate change

Workshop participants highlighted significant improvements in mapping and boundary demarcation of a number of PA sites across the network. However, several noted that little work has been done to incorporate climate change considerations into PA design, whether for existing or newly proposed sites. As PA management evolves in the Bahamas, it is critical that strategies, policies and programs are developed that reduce vulnerability and strengthen the network's resilience in the face of climate change impacts already underway. A renewed focus on promoting climate resilience should be incorporated into the BNT research and monitoring programme and may also inform fishery management reform throughout Bahamian waters. Many tools and approaches to developing climate change adaptation plans are available online.

Build upon recent success to forge partnerships between managers and local communities

The GEF-FSP training series has helped build capacity for stakeholders (e.g. NGOs and community groups) to assist BNT and DMR in the design, implementation and management of the Bahamas MPA network. The benefits of stakeholder collaboration are well founded: increased transparency and accountability, better decision-making, enhanced social equity and justice, improved public/private sector relationships and creation of durable solutions to complex environmental challenges. Participants at the management effectiveness evaluation acknowledged that recent community consultations produced positive contributions to management plan development across the network. Moving forward, BNT managers should seek to assess, understand and adapt to the unique social and political landscape within which any given PA is embedded. Advances in the field of public participation offer a range of participatory planning approaches, facilitative techniques and lessons learned for managers seeking greater stakeholder involvement in natural resources management.

Design a press release or media tool kit to showcase PA management improvements

No doubt many challenges lie ahead for the successful development of the Bahamas PA network. That said, the 2014 management effectiveness evaluation results demonstrate significant improvement across a range of areas over the last five years. As such, BEST, BNT and DMR are well positioned to design and distribute press releases and other media announcements that showcase management improvements across the network. This may in turn increase support, from policy makers to the wider public, for management of the country's most valuable natural and cultural assets. Bahamian conservation leaders may also wish to share recent management improvements on a regional level via the CaMPAM list serve or other social networks.

¹⁰ Potential biophysical indicators for the Bahamas were identified during the baseline assessment and are included in the 2009 workshop report.



**Bahamas Protected Area Network
Management Effectiveness Evaluation Workshop
July 22 - 24, 2014
Comfort Suites Hotel
Paradise Island, Bahamas**

OBJECTIVES

- Introduce and orient protected area staff, stakeholders and policy makers to the purpose and benefits of management effectiveness evaluation
- Integrate 2009 management effectiveness data and assess progress towards recommendations
- Re-apply the Rapid Assessment and Prioritization of Protected Area Management (RAPPAM) and Management Effectiveness Training Tool (METT) methodologies
- Develop recommendations and action plans to advance priority management planning efforts across the Bahamas protected area network

AGENDA

Day 1 – Tuesday, July 22

- 9:00 **Welcome, Workshop Objectives and Introductions**
Phillip Weech, Bahamas Environment, Science and Technology Commission
- 9:30 **What Is Protected Area Management Effectiveness Evaluation and Why Do It?**
Rich Wilson, Seatone Consulting
- 10:00 **Assessment Tool Orientation**
- Overview of RAPPAM, METT and Marine METT
 - Revisit 2009 baseline assessment approach
 - Q&A period
- 10:30 **BREAK**
- 10:40 **Assessment Focus: Protected Area Background and Context**
- Background information
 - Indicators: What are they? How do they enable ongoing evaluation? How does evaluation inform management?
 - Ecological importance
 - Social-economic importance
 - Vulnerability
 - Landscape and seascape level planning
 - Protected area benefits
 - Threats and pressures
 - Open discussion

Appendix A – Workshop Agenda

12:00 **LUNCH**

12:45 **Assessment Focus: Planning**

- Protected area objectives
- Legal security
- Protected area design
- Management planning
- Open discussion

2:00 **Assessment Focus: Inputs**

- Staffing
- Infrastructure
- Financing
- Open discussion

2:45 **BREAK**

3:00 **Assessment Focus: Outputs and Outcomes**

- Management outputs
- Resource condition
- Open discussion

4:45 **Summary of Day 1 Outputs / Preview of Day 2 Agenda**

5:00 **Adjourn**

Day 2 – Wednesday, July 23

9:00 **Assessment Responses, Findings and Trends (2009-2014)**

- Revisit the WCPA management effectiveness evaluation framework
- Review 2009 baseline assessment results, priorities and recommendations
- 2009 – 2014 comparative analysis
- BREAK
- Issue identification within the legislative/policy landscape
- Open discussion: What has changed or not changed and why? What challenges and opportunities lie ahead?

12:00 **LUNCH**

1:00 **Challenges Limiting Management Improvements**

Group brainstorm

- Identify critical challenges and explore of root causes
- Open discussion

2:00 **Threshold Development**

- What are thresholds and how do they drive actions?
- Revisit and refine 2009 thresholds
- Develop new thresholds and identify needed actions
- Open discussion

3:15 **BREAK**

Appendix A – Workshop Agenda

- 3:30 **Project Identification and Prioritization**
- Brainstorm projects that advance needed actions
 - Establish criteria for “good projects” that improve management effectiveness
 - Identify and rank projects (single sites and network)
 - Open discussion: Analysis of ranking results
- 4:15 **Summary of Day 2 Outputs / Preview of Day 3 Agenda**
- 4:30 **Adjourn**

Day 3 – Thursday, July 24

- 9:00 **Action Planning**
Breakouts
- Project selection
 - Goal setting
 - Identify key players and associated roles
 - Resource needs
 - Short/long term action steps and timeline
 - Monitoring and evaluation
 - Post workshop immediate next steps
- 11:00 **Biophysical Monitoring Q&A Period**
Jos Hill, Seatone Consulting, all participants
- 12:00 **LUNCH**
- 1:00 **Action Planning**
(Continue as needed)
- 2:00 **Action Plan Presentations**
- Cluster or site specific report backs
 - Peer review and feedback
 - BREAK
 - Open discussion
- 3:30 **Future Data Management and Planning**
- Data housing (who, what, where?)
 - Data utilization (individual sites/network)
 - Discussion of the Bahamas Protected Areas Fund
 - Next steps
- 4:00 **Workshop Evaluation**
- 4:15 **Closing Remarks**
Phillip Weech, Rochelle Newbold, David Knowles and all participants
- 4:30 **Adjourn**

Appendix B – Evaluated Protected Areas and Respondents

Protected Areas (Island Clusters)	Evaluation Respondents (Workshop Participants)	
Grand Bahama		
Rand Nature Centre	Lakeshia Anderson (BNT)	
Peterson Cay National Park	Monet Roberts (BNT)	
Lucayan National Park		
Abaco		
Walker’s Cay National Park	David Knowles (BNT)	
Black Sound Cay National Reserve	Lynn Gape (BNT)	
Tilloo Cay Reserve	Marcus Davis (BNT)	
Pelican Cay Land and Sea Park		
Abaco National Park		
Fowl Cays National Park		
Andros		
Andros Reef North Marine Park	Tavares Thompson (BNT)	
Andros Reef South Marine Park	Leslie Brace (BNT)	
Blue Holes National Park		
Crab Replenishment Reserve		
West Side National Park		
New Providence		
The Retreat	Lynn Gape (BNT)	Lindy Knowles (BNT)
Harrold and Wilson Ponds National Park	Shenica Campbell (BNT)	Sherlyn Albury (CHP)
Bonefish Pond National Park	Steven Wright (BNT)	
Primeval Forest National Park	Cameron Saunders (BNT)	
Clifton Heritage Park		
Exuma		
Exuma Cays Land and Sea Park	Henry Haley (BNT)	
Moriah Harbour Cay National Park	Lindy Knowles (BNT)	
Conception Island		
Conception Island National Park	Lindy Knowles (BNT)	
Little Inagua Island		
Little Inagua National Park	Casper Burrows and Henry Nixon (BNT)	
Great Inagua		
Union Creek Reserve	Casper Burrows (BNT)	
Inagua National Park	Henry Nixon (BNT)	
Eleuthra		
Leon Levy Native Plant Preserve	Falon Cartwright (BNT)	
Crooked Island		
Hope Great House and Marine Farm	David Knowles (BNT)	
DMR Marine PAs		
Crab Cay Marine Reserve	Frederick Arnett (DMR)	
Exuma (Jewfish) Cay Marine Reserve		
No Name Cay Marine Reserve		
South Berry Island Marine Reserve	Shenique Smith (TNC)	
Additional Participants		
Eric Carey (BNT)	Rochelle Newbold (Convener)	
Vanessa Haley-Benjamin (BNT)	Rich Wilson (Facilitator)	
A’nyce Munroe (BEST)		

Appendix C – Workshop Evaluation Results

Participants completed a sixteen-question evaluation survey at the culmination of the workshop. Response rates below are based on the percentage of total responses. Some questions include additional commentary from respondents.

	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1. I clearly understood the primary workshop objectives	50%	50%	0%	0%	0%	0%
Q1. Additional comments: • Workshop objectives are to help me plan, manage and find out what is needed for the job, and what is most important to work on. This is beneficial to me.						
2. The workshop met the stated primary objectives.	43%	50%	7%	0%	0%	0%
Q2. Additional comments: • Action planning was not completed due to time constraints.						
3. I had enough time to review the materials beforehand and prepare for the workshop.	14%	29%	29%	14%	0%	14%
Q. 3 Additional comments: • Insufficient time to prepare forms beforehand. • My answer is “strongly disagree” simply because I was not on the original email list. • I answer “strongly disagree” because I am a summer intern at BEST and not park staff.						
4. My knowledge and/or understanding of the status and trends of protected areas management in the Bahamas has increased.	43%	36%	21%	0%	0%	0%
Q4. Additional comments: • This workshop will help me better understand what is needed and therefore what is important.						
5. The workshop helped improve my understanding of the importance of monitoring and evaluation as a key component of protected area management planning.	36%	43%	21%	0%	0%	0%
6. I understand the fundamental elements necessary to evaluate protected area management effectiveness.	36%	43%	14%	7%	0%	0%
7. The knowledge gained through the workshop is directly applicable to my daily job requirements.	50%	43%	0%	0%	7%	0%
Q7. Additional comments: • Yes, this will help make me a better supervisor, and to better evaluate what is needed for the park. • I am a summer intern so answered “disagree” to this question.						
8. The action planning exercise	36%	50%	7%	0%	7%	0%

Appendix C – Workshop Evaluation Results

has given me direction to complete a project(s) that will improve management at my protected area.						
Q8. Additional comments: • I am a summer intern so answered “disagree” to this question.						
9. The workshop has helped me prepare for future opportunities and/or challenges I may face as a conservation professional.	14%	50%	21%	0%	7%	0%
Q9. Additional comments: • I am a summer intern so answered “disagree” to this question.						
10. I benefitted from interaction with my peers during the assessment and interactive exercises.	36%	50%	14%	0%	0%	0%
Q10. Additional comments: • New information is always shared in settings like this workshop.						
11. I am satisfied with the workshop facilitation.	50%	43%	0%	7%	0%	0%
Q11. Additional comments: • The facilitator was the best. I look forward to more opportunities to work with him. • Lunch should be provided.						
12. Overall, I am satisfied with the workshop	43%	57%	0%	0%	0%	0%
13. What were the strong points or highlights of the course? • The process itself! • Identifying key issues and problems; breaking down how to solve challenges. • Having everyone point out key issues with each park and then identifying actions needed to address or correct the issues. • Not having quite enough time for the action planning exercise. • Evaluating management effectiveness is important so improvements can be made and the parks better developed and protected. • Going through the management effectiveness evaluation spreadsheet. • Data analysis after completing the spreadsheet. • Redirecting focus of key issues at the respective parks. • Collaborating with peers to review and update protected area planning. • Learning how to correctly use the assessment tool. • Identifying priority issues, improvement thresholds and next steps (actions needed). • The non-monetary value of protected areas highlighted during discussion. • Subjective evaluation of ecological factors in order to track progress. • The priority issues session (2 respondents). • Finding out what tasks are needed and how to plan for this.						
14. What were the weak points of the course, and how would you suggest they be changed in the future? • Short time to work on issues; an additional day or two would help. • None other than long days.						

Appendix C – Workshop Evaluation Results

- Evaluation spreadsheet is extremely long and possibly redundant in some sections; this can cause people to lose focus towards the end.
- The extensive spreadsheet and the timeline given to complete it; workshop should be extended to a full week.
- Time spent on spreadsheet.
- We should have filled out and completed the assessment in advance of the workshop.
- Completing the full spreadsheets was a bit intense.
- There were no weak points to this workshop.

15. What additional topics related to protected area management planning could be explored at future workshops?

- Financing/funding challenges.
- How to draft management plans and associated workplans.
- Funding possibilities and strategies.
- Time to complete the assessment and hard having only one person for some parks (need to have senior staff oversee the work of others).
- Hold a follow-up workshop to learn about action planning.
- Prioritization and improvement thresholds.

16. Please provide any other comments you would like the workshop convener or facilitator to consider.

- Very informative workshop; thanks for inviting me.
- The facilitator did a fantastic job with relaying information. I look forward to working with him in the near future.
- Show examples from the field.

2009/2014 Bahamas PA Management Effective Evaluation Methodology¹

CONTEXT	RAPPAM	METT	Marine Mett
1) ECOLOGICAL IMPORTANCE			
1a. Does the protected area contain a relatively high number of rare, threatened or endangered species?	3a		
1b. Does the protected area have relatively high levels of biodiversity?	3b		
1c. Does the protected area have a relatively high degree of endemism?	3c		
1d. Does the protected area provide a critical landscape function?	3d		
1e. Does the protected area contain the full range of plant and animal diversity?	3e		
1f. Does the protected area significantly contribute to the representativeness of the protected area system?	3f		
1g. Does the protected area sustain minimum viable populations of key species?	3g		
1h. Is the structural diversity of the protected area consistent with historic norms?	3h		
1i. Does the protected area include ecosystems whose historic ranges have been greatly diminished?	3i		
1j. Does the protected area maintain the full range of natural processes and disturbance regimes?	3j		
2) SOCIO-ECONOMIC IMPORTANCE			
2a. Is the protected area an important source of employment for local communities?	4a		
2b. Do local communities depend upon the protected area resources for their subsistence?	4b		
2c. Does the protected area provide community development opportunities through sustainable resource use?	4c		
2d. Does the protected area have religious or spiritual significance?	4d		
2e. Does the protected area have unusual features of aesthetic importance?	4e		
2f. Does the protected area contain plant species of high social, cultural or economic importance?	4f		
2g. Does the protected area contain animal species of high social, cultural or economic importance?	4g		
2h. Does the protected area have a high recreational value?	4h		
2i. Does the protected area contribute significant ecosystem services and benefits to communities?	4i		
2j. Does the protected area have a high educational and/or scientific value?	4j		
3) VULNERABILITY			
3a. Are illegal activities within the protected area difficult to monitor?	5a		
3b. Is law enforcement low in the region?	5b		
3c. Are bribery and corruption common throughout the region?	5c		
3d. Is the area experiencing civil unrest and/or political instability?	5d		
3e. Do cultural practices, beliefs and traditional uses conflict with the protected area objectives?	5e		
3f. Is the market value of protected area resources high?	5f		
3g. Is the area easily accessible for illegal activities?	5g		
3h. Is there a strong demand for vulnerable protected area resources?	5h		
3i. Is the protected area manager under undue pressure to exploit the protected area resources?	5i		
3j. Is recruitment and retention of employees difficult?	5j		
4) LANDSCAPE/SEASCAPE INTEGRATION			
4a. Does land and water use planning recognise the protected area and aid the achievement of PA objectives?	8d	21	
4b. Is the protected area linked to another protected or otherwise conserved area?	8e		
4c. Does the management of corridors provide for wildlife passage to key habitats?		21b	
4f. Is the protected area integrated into a larger land/sea use management plan?			5
5) PROTECTED AREA BENEFITS			
5a. Does the protected area providing economic benefits to local communities?		25	
5b. Are there programmes implemented to enhance community welfare, while conserving PA resources?		24b	
5c. Is the protected area part of a network that is managed to collectively sustain larger ecosystem functions?		5a	

¹ Information in this appendix is taken directly from the 2009 report, *Protected Area Effectiveness in the Bahamas: Establishing a Monitoring Baseline and Prioritizing Actions for Improvement*. The 2014 evaluation applied the same questionnaire used in 2009.

Appendix D – Summary of Methodology (2009 and 2014)

		CONTEXT – THREATS AND PRESSURES							
		Previous 5 years				Next 5 years			
		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
DEVELOPMENT									
	Housing development								
	Commercial development								
	Tourism infrastructure								
AGRICULTURE AND AQUACULTURE		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Crop cultivation								
	Pulp plantation								
	Livestock and grazing								
	Aquaculture								
ENERGY		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Oil and/or gas drilling								
	Mining and quarrying								
	Energy generation								
TRANSPORTATION		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Roads and railroads								
	Utility and service lines								
	Shipping lanes								
	Flight paths								
BIOLOGICAL RESOURCE USE		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Hunting and killing								
	Non-timber forest products								
	Logging								
	Fishing								
HUMAN INTRUSIONS		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Recreation and tourism								
	War, civil unrest								
	Research activities								
	Management activities								
	Vandalism								
NATURAL SYSTEM MODIFICATION		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Fire and fire suppression								
	Dams, hydrological modification								
	Fragmentation								
	Isolation								
	Other edge effects								
	Loss of keystone species								
INVASIVES		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Invasive plants								
	Invasive animals								
	Pathogens								
POLLUTION		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Sewage and urban waste								
	Waste from protected area								
	Industrial effluents								
	Agricultural and forestry effluents								
	Garbage and solid waste								
	Air-borne pollutants								
	Excess energy								
GEOLOGICAL EVENTS		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Erosion and siltation								
	Other geological events								
CLIMATE CHANGE		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Habitat alteration								
	Droughts								
	Temperature extremes								
	Storms and flooding								
	Changes in acidity								
CULTURAL THREATS		Rank	Extent	Impact	Permanence	Rank	Extent	Impact	Permanence
	Loss of cultural links								
	Deterioration of cultural sites								
	Destruction of cultural heritage								

Threat list is from the METT (a modified version of the list of threats from the Conservation Measures Partnership); threat-ranking system is from RAPPAM.

Appendix D – Summary of Methodology (2009 and 2014)

MANAGEMENT EFFECTIVENESS INDICATORS -- PLANNING	RAPPAM	METT	Marine Mett
1. PROTECTED AREA OBJECTIVES			
1a. Do the protected area objectives provide for the protection and maintenance of biodiversity?	6a		
1b. Are specific biodiversity-related objectives clearly stated in the management plan?	6b		
1c. Are management policies and plans consistent with the protected area objectives?	6c		
1d. Do employees and administrators understand the protected area objectives and policies?	6d		
1e. Do local communities support the overall objectives of the protected area?	6e	24b	
1f. Is management undertaken according to agreed objectives?		4	8
2) LEGAL SECURITY			
2a. Does the protected area have long-term, binding legal status?	7a	1	1
2b. Have all disputes regarding land tenure and/or use rights been settled?	7b		
2c. Is the boundary known, demarcated and/or adequate to meet the protected area objectives?	7c	6	4
2d. Can staff enforce protected area rules well enough?		3	3
2e. Are staff and financial resources adequate to conduct critical law enforcement activities?	7d		
2f. Are systems in place to control access/resource use in the protected area?		10	
2g. Are appropriate regulations and/or mechanisms in place to control land use and activities?		2	2
2h. Are conflicts with the local community resolved fairly and effectively?	7e		
3) PROTECTED AREA DESIGN			
3a. Is the siting of the protected area consistent with the protected area objectives?	8a		
3b. Is the protected area the right size and shape to protect species, habitats, ecological processes and water catchments of key conservation concern?		5	
3c. Does the layout and configuration of the protected area optimize biodiversity conservation?	8b		
3d. Is the protected area zoning system adequate to achieve the protected area objectives?	8c		
3e. Does the protected area design anticipate changes under climate change scenarios?	New indicator		
4) MANAGEMENT PLANNING			
4a. Is there a management plan and is it being implemented?		7	9
4b. Is the management plan comprehensive, written and relatively recent?	13a		
4c. Is there enough information to manage the area?		9	6
4d. Is there a comprehensive inventory of natural and cultural resources?	13b		
4e. Is there an analysis of, and strategy for address, protected area threats and pressures?	13c		
4f. Is there a regular workplan and is it being implemented?		8	
4g. Does the work plan identify specific targets for achieving management objectives?	13d		
4h. Are the results of research and monitoring routinely incorporated into planning?	13e	7c	9g
4i. Is there a schedule and process for periodic review and updating of the management plan?		7b	9f

Appendix D – Summary of Methodology (2009 and 2014)

MANAGEMENT EFFECTIVENESS INDICATORS -- INPUTS	RAPPAM	METT	Marine Mett
5. STAFFING			
5a. Is the level of staffing sufficient to effectively manage the area?	9a		
5b. Are there enough people employed to manage the protected area?		13	11
5c. Do staff members have adequate skills to conduct critical management activities?	9b		
5d. Are staff adequately trained to fulfil management objectives?		14	17
5e. Are training and development opportunities appropriate to staff needs?	9c		
5f. Are staff performance and progress on targets periodically reviewed?	9d		
5g. Are staff employment conditions sufficient to retain high quality staff?	9e		
6. INFRASTRUCTURE			
6a. Is transportation infrastructure adequate to perform critical management activities?		11a	
6b. Is equipment sufficient for management needs and for performing critical management activities?	11b	18	18
6c. Are staff facilities adequate to perform critical management activities?	11c		
6d. Is equipment maintenance and care adequate to ensure long-term use?	11d	19	
6e. Are visitor facilities appropriate to the level of visitor use?	11e	18	25
7. FINANCING			
7a. Is the current budget sufficient to conduct critical management activities?		15	12
7b. Is the budget secure?		16	
7c. In the past five years, has funding been adequate to conduct critical management activities?	12a		
7d. For the next five years, is funding adequate to conduct critical management activities?		12b	12a
7e. Is the budget managed to meet critical management needs?		17	
7f. Do overall financial management practices enable efficient and effective protected area management?	12c		
7g. Is the allocation of expenditures appropriate to protected area priorities and objectives?	12d		
7h. Is the long-term financial outlook for the protected area stable?	12e		
7i. Do fees (if they are applied), enable effective protected area management?		28	26
7j. Do commercial operators contribute to protected area management?		29	15a
7k. Is the funding for the protected area diversified?			12b

Appendix D – Summary of Methodology (2009 and 2014)

MANAGEMENT EFFECTIVENESS INDICATORS – PROCESSES	RAPPAM	METT	Marine Mett
8. INFORMATION AND COMMUNICATION			
8a. Are there adequate means of communication between field and office staff?	10a		
8b. Are existing ecological and socio-economic data and information adequate for management planning?	10b		
8c. Are there adequate means of collecting new data and information?	10c		
8d. Are there adequate systems for processing, analysing and maintaining data and information?	10d		
8e. Is there effective communication with local communities?	10e		
8f. Do local communities residing in or near the protected area have input to management decisions?		24	15
8g. Is there open communication and trust between local and/or indigenous people, stakeholders and protected area managers?		24a	
8h. Is there cooperation with adjacent land and water users?		22	
8i. Do indigenous and traditional peoples residing in, or regularly using, the protected area have input to management decisions?		23	16
8j. Is there a planned education programme linked to the objectives and needs?		20	13
9. MANAGEMENT DECISION MAKING			
9a. Does the protected area management system have clear internal organization?	14a		
9b. Are management decisions clear, transparent and accountable?	14b		
9c. Do protected area staff regularly consult with key stakeholders when making important decisions?	14c	14	
9d. Are there clear mechanisms for stakeholder participation in decision making?		22	
9e. Does the planning process adequately allow for key stakeholders to influence the management plan?		7a	9b
10. RESEARCH AND MONITORING			
10a. Is there a programme of management-oriented survey and research work?		11	10
10b. Are the impacts of legal and illegal uses of the protected area accurately monitored and recorded?	15a		
10c. Is research on key ecological issues consistent with the needs of the protected area?	15b		
10d. Is research on key social and economic issues consistent with the needs of the protected area?	15c	9d	9e
10e. Do protected area staff members have regular access to recent scientific research and advice?	15d		
10f. Are critical research and monitoring needs identified and prioritized?	15e		
10g. Are management activities monitored against performance?		26	
10h. Are biophysical, socioeconomic and governance indicators monitored and evaluated?		19	
10i. Have carrying capacity studies been conducted to determine sustainable use levels?		10a	

MANAGEMENT EFFECTIVENESS INDICATORS – OUTPUTS	RAPPAM	METT	Marine Mett
11. MANAGEMENT OUTPUTS			
11a. Are threat prevention, detection and law enforcement outputs and activities sufficient?	16a	30b	
11b. Are site maintenance, restoration and mitigation outputs and activities sufficient?	16b	30c	
11c. Are wildlife and/or habitat management outputs and activities sufficient?	16c	12	24
11d. Are community outreach and education outputs and activities sufficient?	16d		23
11e. Are visitor and tourist management outputs and activities sufficient?	16e		
11f. Is the development and management of protected area infrastructure sufficient?	16f		21
11g. Are management planning and inventorying outputs and activities sufficient?	16g		
11h. Are staff monitoring, supervision and evaluation activities sufficient?	16h		
11i. Are staff training and development outputs and activities sufficient?	16i		27
11j. Are research and monitoring outputs and activities sufficient?	16j		

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MANAGEMENT EFFECTIVENESS INDICATORS – OUTCOMES	RAPPAM	METT	Marine Mett
12. OUTCOMES			
12a. Are the important values of the protected area intact compared to when the protected area was first designated?	16a	30b	
12b. Is the assessment of the condition of values based on research and/or monitoring?	16b	30c	

12c Resource conditions				
Please list five of the key protected area 'values' or 'resources' below.	Overall condition compared to historical reference conditions	Relative condition compared to the previous 5 years	Key attributes to monitor for change in condition/integrity	Threshold for improvement in condition/integrity

Design specifications for the methodology

Challenges:

- ✓ To create a system that captures METT, Marine METT and RAPPAM data without being overly burdensome, repetitive and time consuming
- ✓ To allow the system to track changes over time for a baseline, year 1, 3 and 5
- ✓ To streamline the data gathering and analysis process by reducing the administrative burden of collecting questionnaires and manually entering them into a database or spreadsheet
- ✓ To allow managers to home in on the most important and pressing issues, and to identify specific thresholds for improvement
- ✓ To automate answers (to ensure more accurate scoring) and analyses (to ensure faster results)
- ✓ To enable concise, print-ready reports for each protected area

Design features:

- ✓ This streamlined assessment and reporting tool (excel spreadsheet) includes all of the questions from METT (2007 version), Marine METT and RAPPAM methodologies
- ✓ Questions were combined where there were redundancies, defaulting to the METT language, with guidance notes from RAPPAM as well
- ✓ The way each question is asked has been harmonized, for consistency and ease of use, so that all questions are asked in a 'yes/no' format. The four parameters for each METT question remain the same, and can be found in the guidance comments.
- ✓ The answers are reorganized to follow the flow of the WCPA framework,
- ✓ All of the guidance notes for answering are embedded as 'comments' within each cell
- ✓ The system will allow reporting by METT only, RAPPAM only, as well as a combined report
- ✓ The system will allow a comparison of changes over time

Innovations:

- ✓ The methodology includes several innovations: 1) A new indicator on climate change adaptation; 2) An expanded section on condition of protected area values; 3) An added a section on 'importance' for each indicator; this will help in setting priorities; and 4) An added a section on

Appendix D – Summary of Methodology (2009 and 2014)

‘threshold for improvement,’ which will allow managers to focus on specific actions needed to improve management