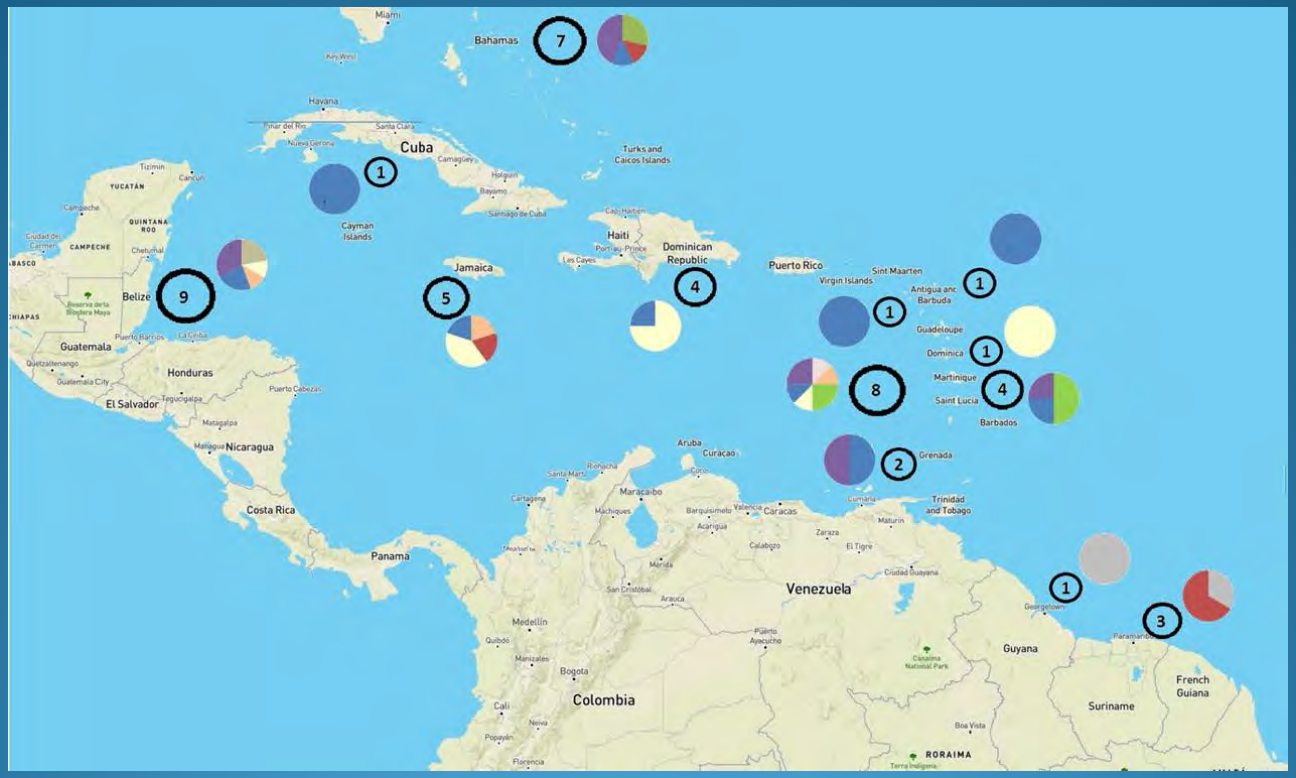
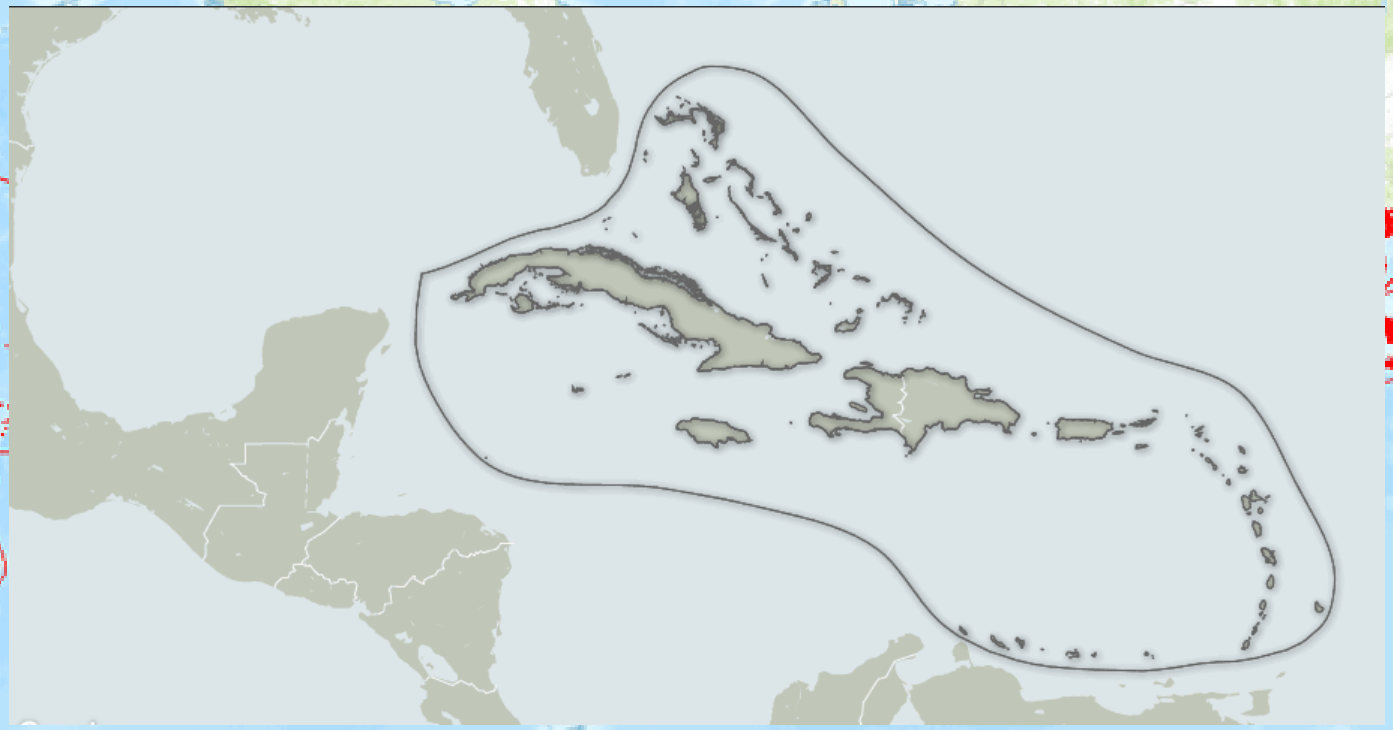
Review of Management Effectiveness Assessments in the Caribbean



Julian Walcott
Technical Officer
Caribbean Protected Areas Gateway
BIOPAMA programme

Biodiversity Hotspots



- 1,500 vascular plants as endemics
- Loss >70% its original natural vegetation (threatened)

Protected Area:

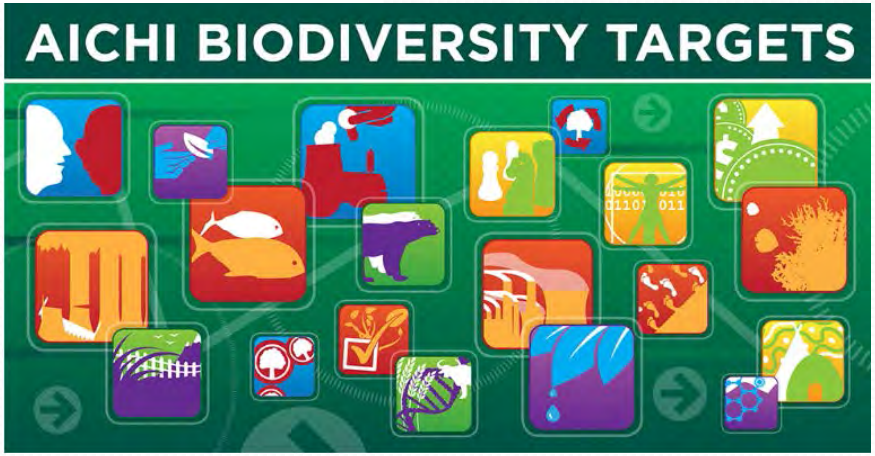
- a clearly defined geographical space
- recognised, dedicated and managed, through legal or other effective means
- to achieve the long term conservation of nature with associated ecosystem services and cultural values

(IUCN definition 2008)

Global & Regional Targets for Biodiversity

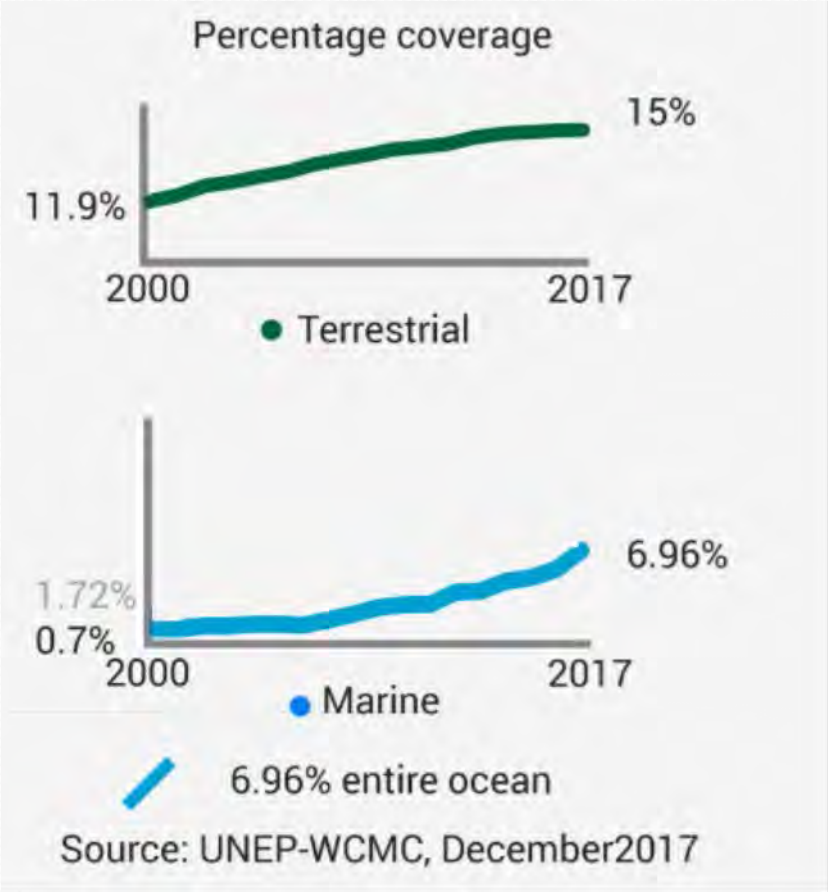
Target

- network of MPAs and Time/area closures by 2012



Target 11 (by 2020)

- at least 17% of terrestrial and inland water
- 10% of coastal and marine areas
- are conserved via protected areas and other effective area-based conservation measures



Global & Regional Targets for Biodiversity

CARIBBEAN CHALLENGE INITIATIVE

CCI '20 BY 20' CHALLENGE

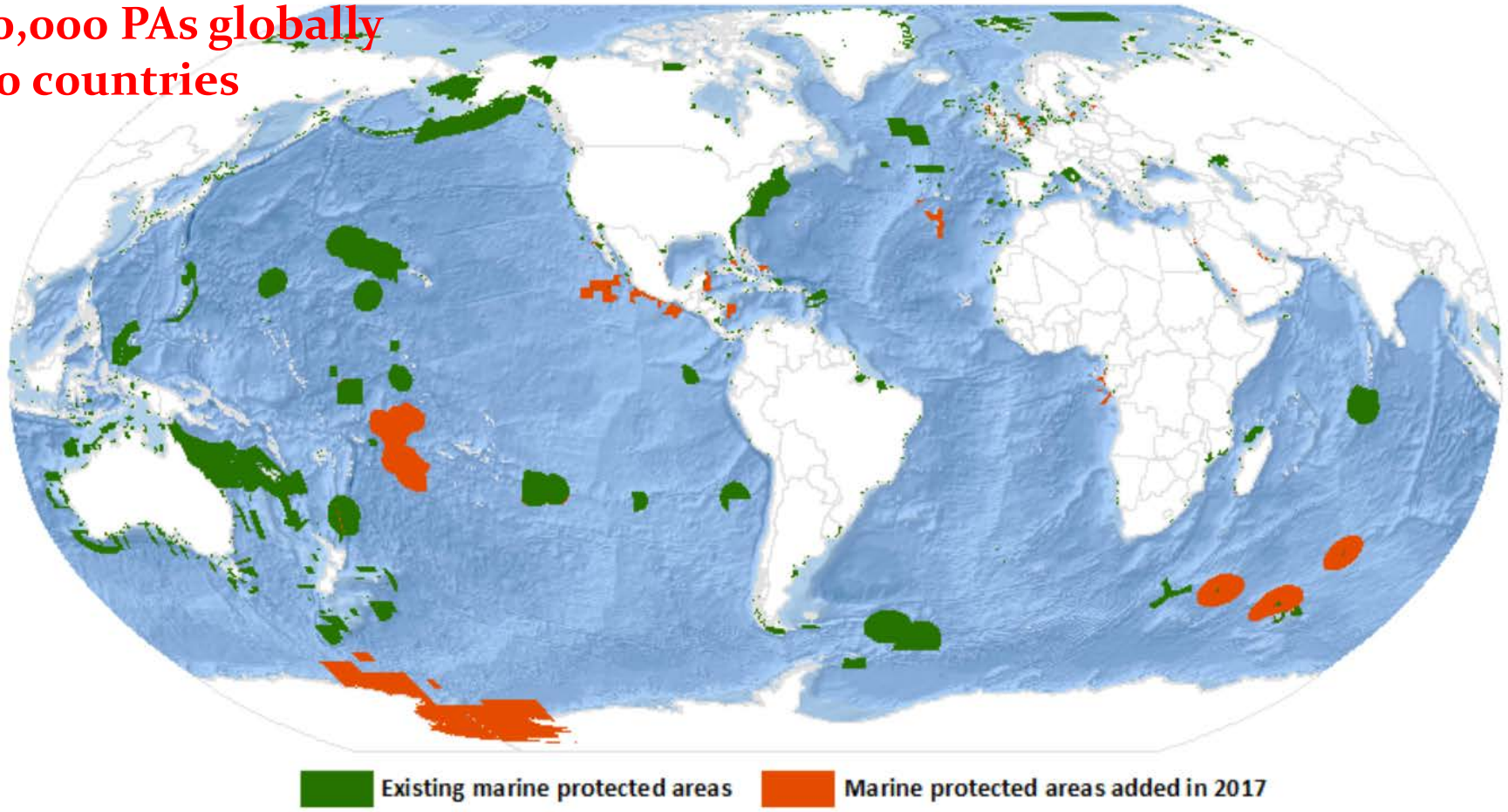
PROTECTING AND SUSTAINABLY MANAGING 20% OF THE CARIBBEAN'S MARINE AND COASTAL ECOSYSTEMS BY 2020.

ICRI International Coral Reef Initiative

Calling for 20% of reef areas to be put aside in no-take reserves

> 230,000 PAs globally

> 200 countries



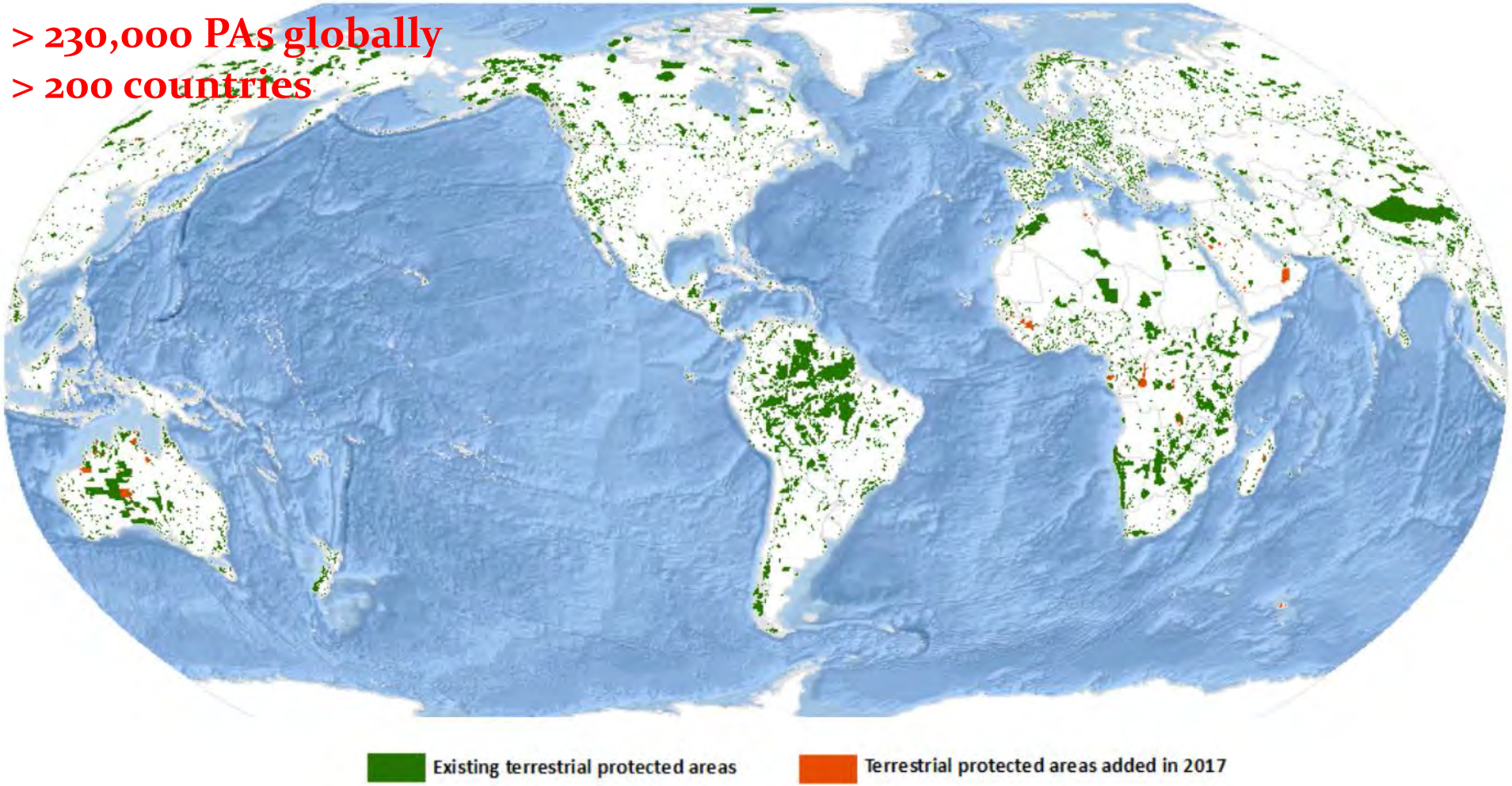
Marine

(approx. 25 million km^2)

Source: WDPA 2017

> 230,000 PAs globally

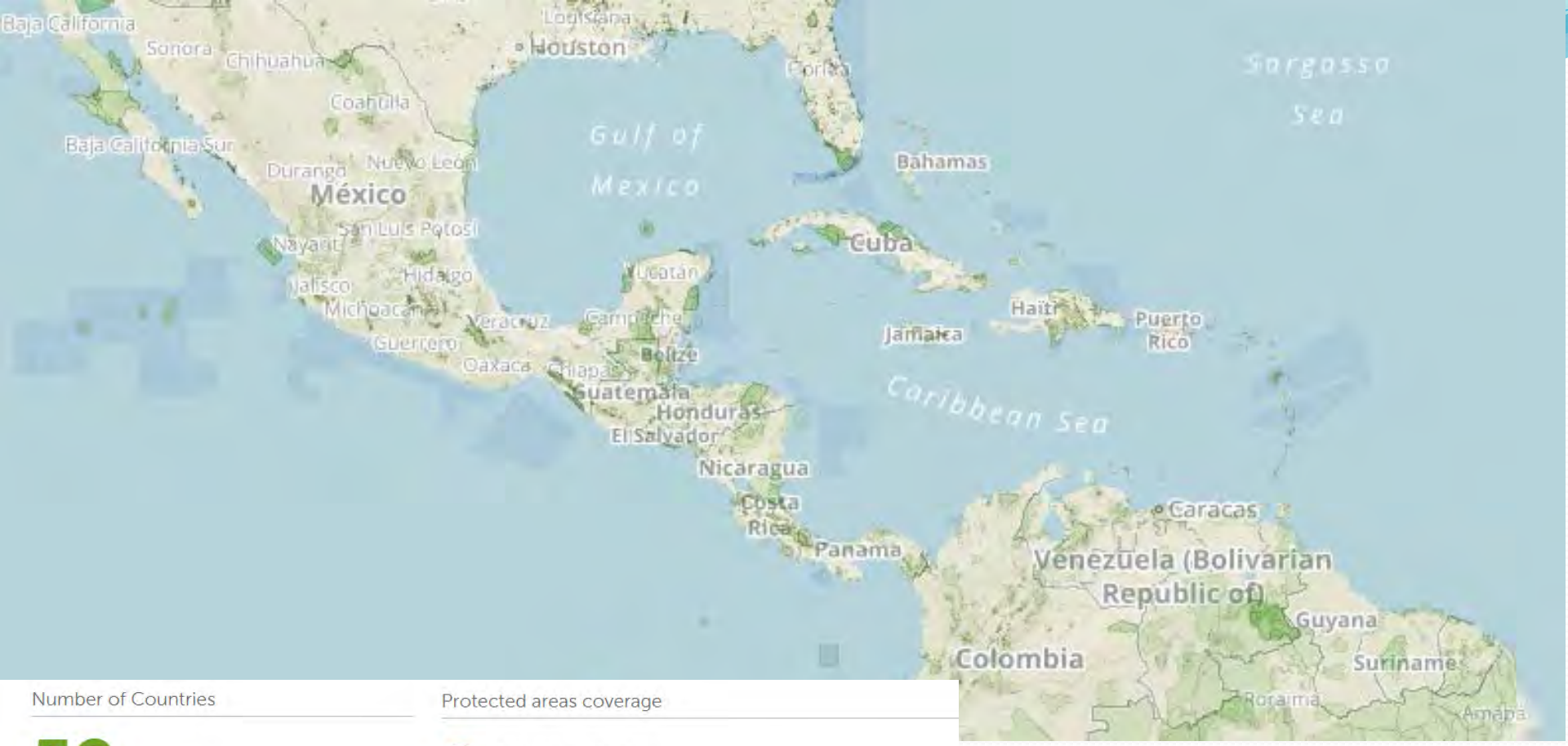
> 200 countries



Terrestrial

(approx. 20 million km^2)

Source: WDPA 2017



Number of Countries

52

Number of Protected areas

8,145

Protected areas coverage

Area terrestrial

22.04% coverage

4,786,446 km² Land Area Protected

Area marine

12.13% coverage

4,015,611 km² Marine Area Protected

Latin America & the Caribbean

Source: WDPA 2017

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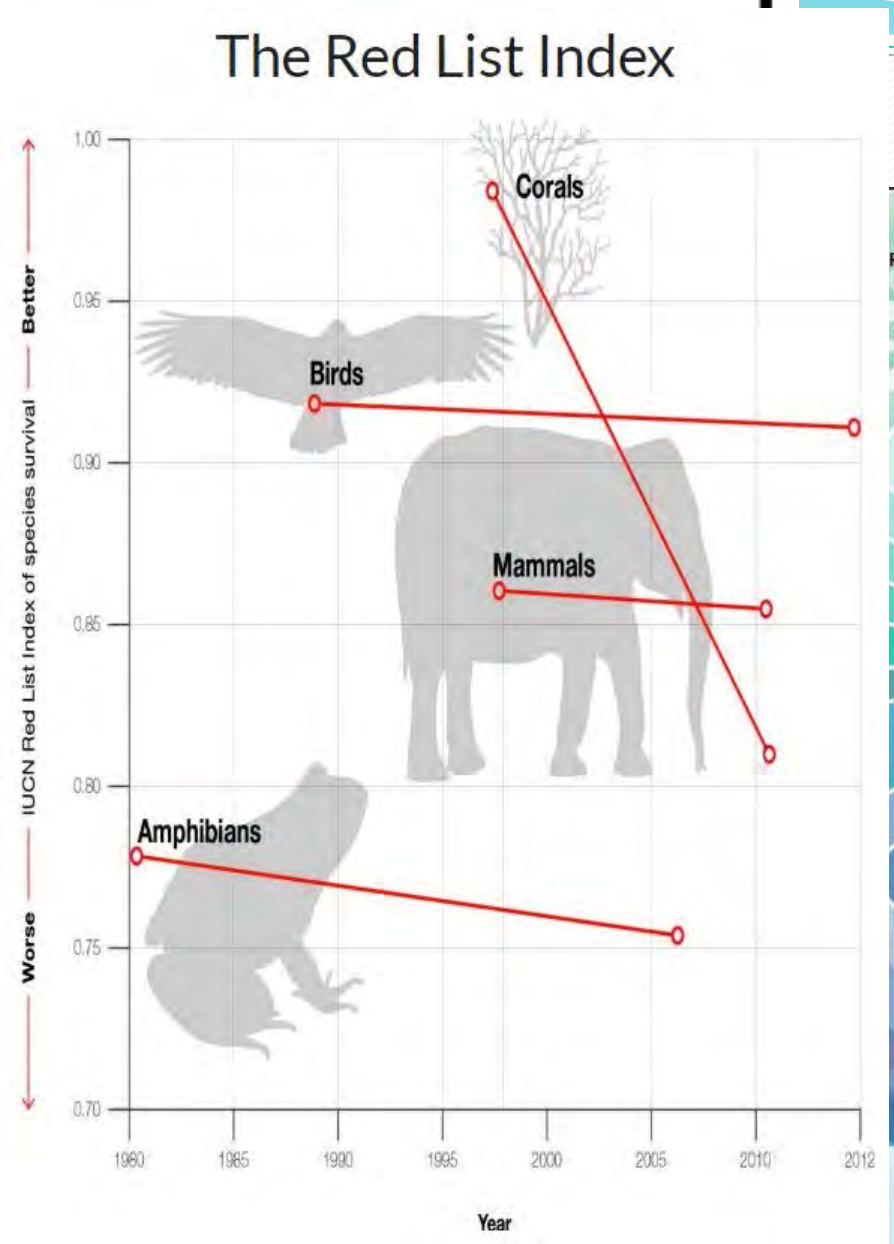


Sustainability Science
April 2015, Volume 10, Issue 2, pp 357–369 | Cite as

Why biodiversity declines
effect of the power of gove
landscapes

Authors
Authors and affiliations
Rosemary Hill, Craig Miller, Barry Newell, Michael Du

Special Feature: Technical Report Pathways towards su
First Online: 14 February 2015

Abstract

Achieving sustainable landscapes that integ
remains challenging, particularly in the trop
conversion to industrial agriculture. Land-s
agricultural production from developed lan
land-sharing (mixing protection and production in an agro-ecological matrix) for biodiversity

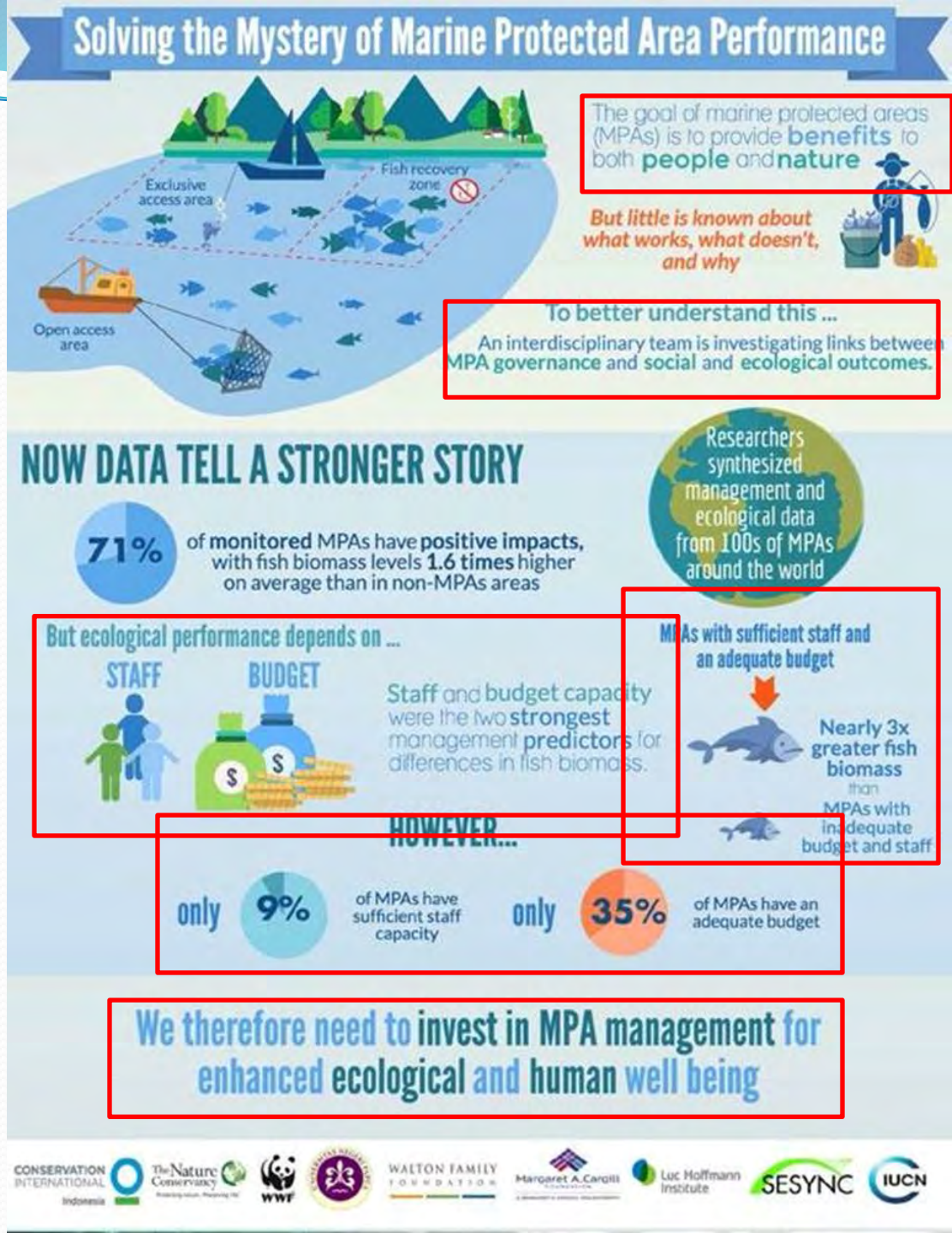
Hill et al. 2015

Hsu et al. 2016

Effectiveness of Management

PAs are more than boundaries & legal designations

National Oceanic and Atmospheric Administration (NOAA) - poster



Convention on Biological Diversity

Programme of Work on Protected Areas (PoWPA)

- provides a globally-accepted framework
- for creating comprehensive, effectively managed and sustainably funded
- national and regional protected area systems around the globe

Goal 4.2 - To evaluate and improve the effectiveness of protected areas management

Target (by 2010)

- frameworks for monitoring, evaluating and reporting protected areas management effectiveness
- at sites, national and regional systems, and transboundary protected area levels
- adopted and implemented by Parties

PAME assessments in the Caribbean ACP countries

Methodology:

- desk study

Key objectives:

- identify the PAME assessments carried out in the ACP Caribbean countries
- highlight the tools used
- elucidate gaps
- provide recommendations (monitoring & reporting)

REPORT ON:

PROTECTED AREAS MANAGEMENT EFFECTIVENESS (PAME)

ASSESSMENTS IN THE CARIBBEAN ACP COUNTRIES

Source: http://caribbean-mis.biopama.org/

PAME assessments in the Caribbean ACP countries

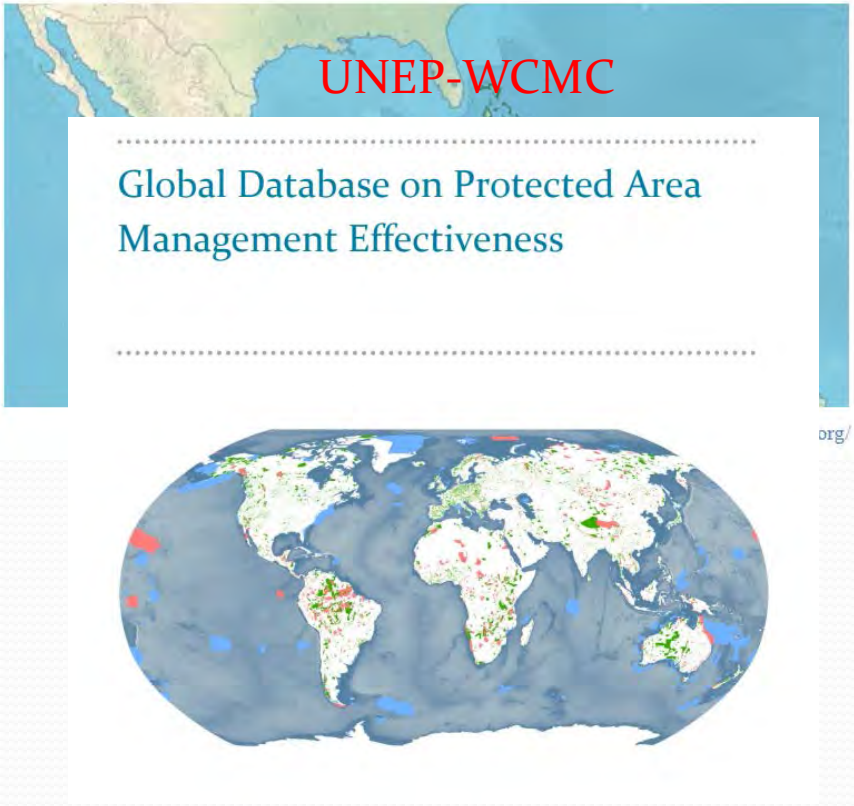
Methodology:

- sources
  - scholarly articles
  - grey literature
  - books and book chapters
  - reports
  - databases*
  - management plans
  - relevant websites
  - personal communications/ correspondences

REPORT ON:

PROTECTED AREAS MANAGEMENT EFFECTIVENESS (PAME)

ASSESSMENTS IN THE CARIBBEAN ACP COUNTRIES



* excludes GD-PAME – 1000s of PAME assessments

PAME assessments

Overall findings

- thousands of PAME evaluations have been conducted globally
  - over 20+ years
- early assessments were sporadic & individual
- In 2000, IUCN-WCPA published an overall framework for assessment
  - that good protected area management follows a process that has six distinct stages, or elements.

"the assessment of how well protected areas are being managed, primarily the extent to which management is protecting values and achieving goals and objectives" (Hockings *et al*. 2006)

- to improve protected area management
- to increase accountability
- to communicate with the public
- to assist in prioritization of resourcing

(Leverington and Hockings 2004)

The IUCN-WCPA framework for assessing management effectiveness of protected areas (Source: Hockings *et al*. 2006)

Abbreviation	Methodology name	Organisation/Affiliation
	INTERNATIONAL	
EOH	Enhancing our Heritage	UNESCO/IUCN/UNF
How is Your MPA Doing	How is Your MPA Doing	NOAA/ National Ocean Service/ IUCN WCPA Marine/ WWF
IMET	Integrated Management Effectiveness Tool	JRC
Marine Tracking Tool	WWF-World Bank MPA Scorecard	WWF/World Bank
METT	Managemne Effectiveness tracking tool	World Bank/WWF Alliance
RAPPAM	Rapid Assessment and Prioritisation of Protected Area Management	WWF
TNC CAP	Conservation Action Planning	TNC
	African	
Africa rainforest study	Africa rainforest study	Academic/ WCS
Central African Republic	Central African Republic	Academic/ WWF
Egyptian Site-level Assessment	Management Effectiveness Evaluations of Egypt National Parks	Nature Conservation Sector (NCS), Egyptian Environmental Affairs
MEE - Congo	MEE - Congo	
WARPO	WARPO	WWF West Africa Regional Program Office
West Indian Ocean MPA	West Indian Ocean Workbook	West Indian Ocean Marine Science Association
Wetland tracking tool	Wetland tracking tool	WWF
	ASIAN	
MPAME Indonesia	Improving Marine Protected Area Management Effectiveness in Indonesia	TNC Indonesia Marine Program
Korea METT	Korea survey on protected area management status	Korea Parks Service
MEE Indian	MEE Indian	IIPA/ Centre for equity studies
	EUROPEAN	
Finland MEE	Management Effectiveness Study - Finland	Metsahallitus
Catalonia MEE	Catalonia MEE	Institucio Catalana d'Historia Natural
PAN Parks	PAN Parks	PAN Parks Foundation
MEVAP	Monitoring and Evaluation of Protected Areas	C.U.R.S.A (University Consortium for Socioeconomic and Environmental Research)
WWF Italy system	WWF Italy system	WWF Italy
	Latin America and the Caribbean	
AEMAPPS	AEMAPPS: MEE with Social Participation - Colombia	Parques Nacionales Naturales de Colombia/ WWF Colombia
Belize MEE	Belize National Report on Management Effectiveness	Forest Department Belize
Brazil 1999	Degree of Implementation and the Vulnerability of Brazilian Federal Conservation Areas	WWF Brazil with IBAMA
Ecuador MEE	Ecuador MEE: Indicadores para el Monitoreo y Evaluacion del Manejo de la Areas Naturales Protegidas del Ecuador	Ministry of Environment
Galapagos MEE	Manual para la evaluacion de la Eficiencia de Manejo del Parque Nacional Galapagos. SPNG	SPNG
MARIPA-G	Monitoring and Assessment with Relevant Indicators of Protected Areas of the Guianas (MARIPA-G)	WWF Guianas
MEMS	Metodologia de Evaluacion de Efectividad de Manejo (MEMS) del SNAP de Bolivia	SERNAP
Mesoamerica MPA	Rapid Evaluation of Management Effectiveness in Marine Protected Areas in Mesoamerica	MBRS/ PROARCA/ CAPAS
Mexico SIMEC	Mexican System of Information, Monitoring and Evaluation for Conservation	National Commission of Protected Areas of Mexico (CONANP)
Parks profiles	Parks profiles	Parkswatch
Peru MEE	Peru MEE	INRENA
PIP Site consolidation	TNC Parks in Peril Site Consolidation Scorecard	TNC/ USAID
PROARCA/ CAPAS	PROARCA/ CAPAS scorecard evaluation	PROARCA/ CAPAS
Scenery matrix	Scenery matrix	Forestry institute (IF-SP)
Valdiviana	Valdiviana Ecoregion Argentina	WWF
Venezuela Vision	Venezuela Vision	DGSPN - INPARQUES
WWF/ CATIE	WWF/ CATIE Evaluation Methodology	WWF/ CATIE
	OCEANIA	
NSW SOP	NSW State of Parks	NSW DEC
Qld Park Integrity	Qld Park Integrity assessment	Queensland Parks and Wildlife Service
Tasmanian WHA	Tasmanian World Heritage MEE	Tasmanian PWS
Victorian SOP	Victorian State of Parks	Parks Victoria
	NORTH AMERICA	
USA SOP	US State of Parks	NPCA

Non-exhaustive list of PAME tools (methodologies)

(Sources: Leverington *et al*. 2008, Protected Planet 2018)

PAME assessments

Overall findings

- the most commonly used PAME tools
  - the Rapid Assessment and Prioritization of Protected Area Management (RAPPAM)
    - developed by WWF between 1999 and 2002
  - the Management Effectiveness Tracking Tool (METT)
    - developed by the World Bank/WWF alliance and finalised in 2003
  - the New South Wales State of Our Parks (SOP) methodology
    - developed by the New South Wales Department of the Environment and Conservation and the University of Queensland

PAME assessments in the Caribbean ACP countries

Key findings

1) Availability of information

- information on PAME assessments, especially for the Caribbean, is very limited!!!
- a total of 47 documented PAME assessments were found
  - across 78 reported PAs
- conducted throughout 1972 – 2016
- Information available for 13 of the 16 ACP countries
  - Barbados, Haiti & Trinidad and Tobago
- many of the documented records were incomplete
  - 15% did not report the year of the assessment
  - 21% did not report the actual tool (methodology) utilised

Country	PAME methodology	Year	No. sites
Antigua and Barbuda	RAPPAM	NR	NR
Bahamas	NR	1972	1
Bahamas	NR	2002	1
Bahamas	NR	2002	1
Bahamas	Personalised assessment	2009	26
Bahamas	Personalised assessment	2014	31
Bahamas	METT	NR	NR
Bahamas	RAPPAM	NR	NR
Belize	NR	1996	1
Belize	NR	1996	1
Belize	NR	2000	1
Belize	RAPPAM	2000	NR
Belize	RAPPAM	2005	7
Belize	Belize National Report on Management Effectiveness	2006	NR
Belize	How is Your MPA doing?	2006	1
Belize	Belize National Report on Management Effectiveness	2009	NR
Belize	TNC Parks in Peril Site Consolidation Scorecard	1996-1999, 2001	1
Cuba	RAPPAM	2016	2
Dominica	TNC Parks in Peril Site Consolidation Scorecard	1996-1999, 2001	1
Dominican Republic	TNC Parks in Peril Site Consolidation Scorecard	1996-1999, 2001	1
Dominican Republic	TNC Parks in Peril Site Consolidation Scorecard	1996-2001	1
Dominican Republic	TNC Parks in Peril Site Consolidation Scorecard	1998-2002	5
Dominican Republic	RAPPAM	NR	31
Grenada	NR	1999	1
Grenada	RAPPAM	2006	NR
Guyana	Monitoring and Assessment with Relevant Indicators of Protected Areas of the Guianas (MARIPA-G)	NR	NR
Jamaica	How is Your MPA doing?	2006	1
Jamaica	RAPPAM	2006	NR
Jamaica	METT	2009	31
Jamaica	TNC Parks in Peril Site Consolidation Scorecard	1998-2001	1
Jamaica	TNC Parks in Peril Site Consolidation Scorecard	NR	1
St. Kitts and Nevis	RAPPAM	2009	NR
St. Lucia	OPAAL Monitoring and Evaluation Tool (OPAAL scorecard)	2006	1
St. Lucia	NR	2007	1
St. Lucia	OPAAL Monitoring and Evaluation Tool (OPAAL scorecard)	2008	1
St. Lucia	RAPPAM	2009	UNK
St. Vincent and the Grenadines	NR	1987	1
St. Vincent and the Grenadines	NR	1997	1
St. Vincent and the Grenadines	How is Your MPA doing?	2006	1
St. Vincent and the Grenadines	OPAAL Monitoring and Evaluation Tool (OPAAL scorecard)	2006	1
St. Vincent and the Grenadines	RAPPAM	2006	NR
St. Vincent and the Grenadines	OPAAL Monitoring and Evaluation Tool (OPAAL scorecard)	2008	1
St. Vincent and the Grenadines	Modified management effectiveness methodology	2016	1
St. Vincent and the Grenadines	TNC Parks in Peril Site Consolidation Scorecard	NR	NR
Suriname	METT	2010	16
Suriname	METT	2015	16
Suriname	Monitoring and Assessment with Relevant Indicators of Protected Areas of the Guianas (MARIPA-G)	NR	NR

Country	Site	WDPA ID	Designation
Bahamas	Andros Barrier Reef National Park	555592582, 555592583	National Park
Bahamas	Moriah Harbour Cay	315003	National Park
Bahamas	Pelican Cays Land and Sea Park	11839	National Park
Bahamas	South Berry Islands Marine Reserve	555592584	Marine Reserve
Barbados			
Belize			ment
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Cuba			
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Dominica			
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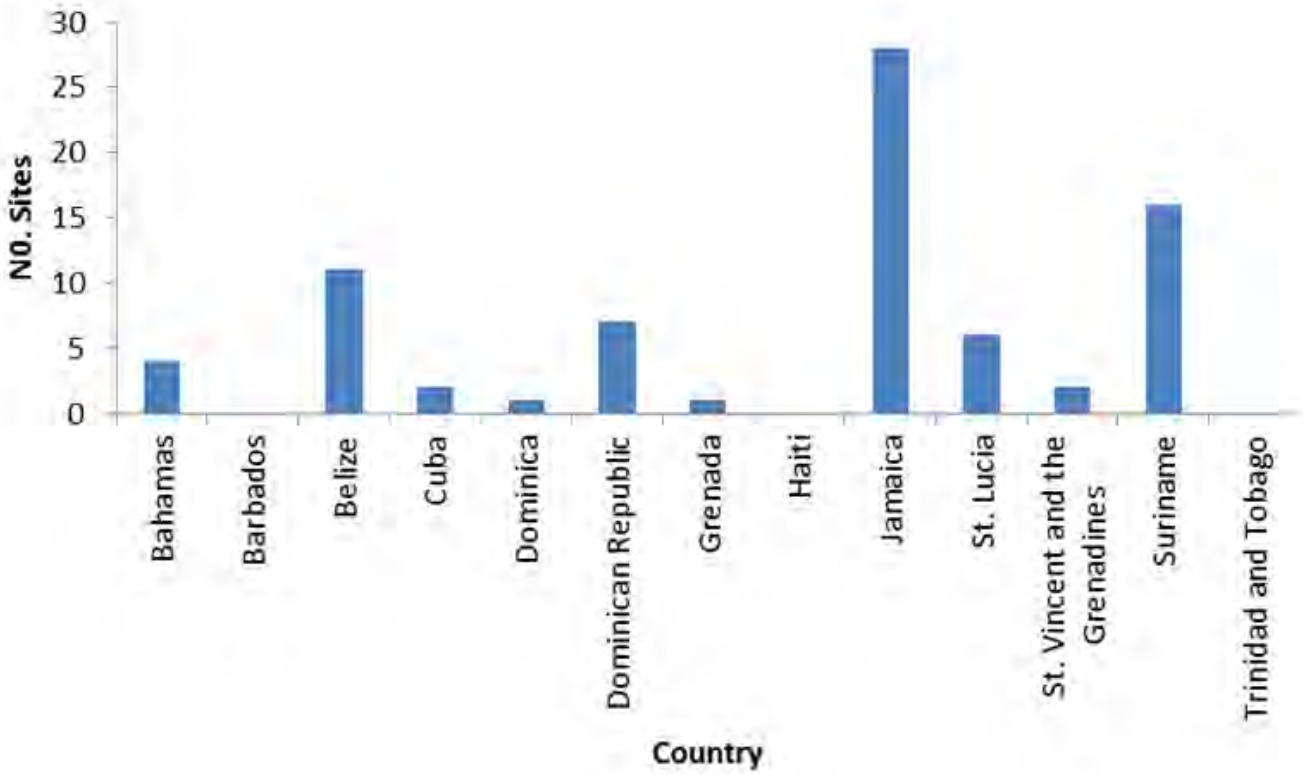
Grenada	Molinière/Beauséjour	14191	Marine Park



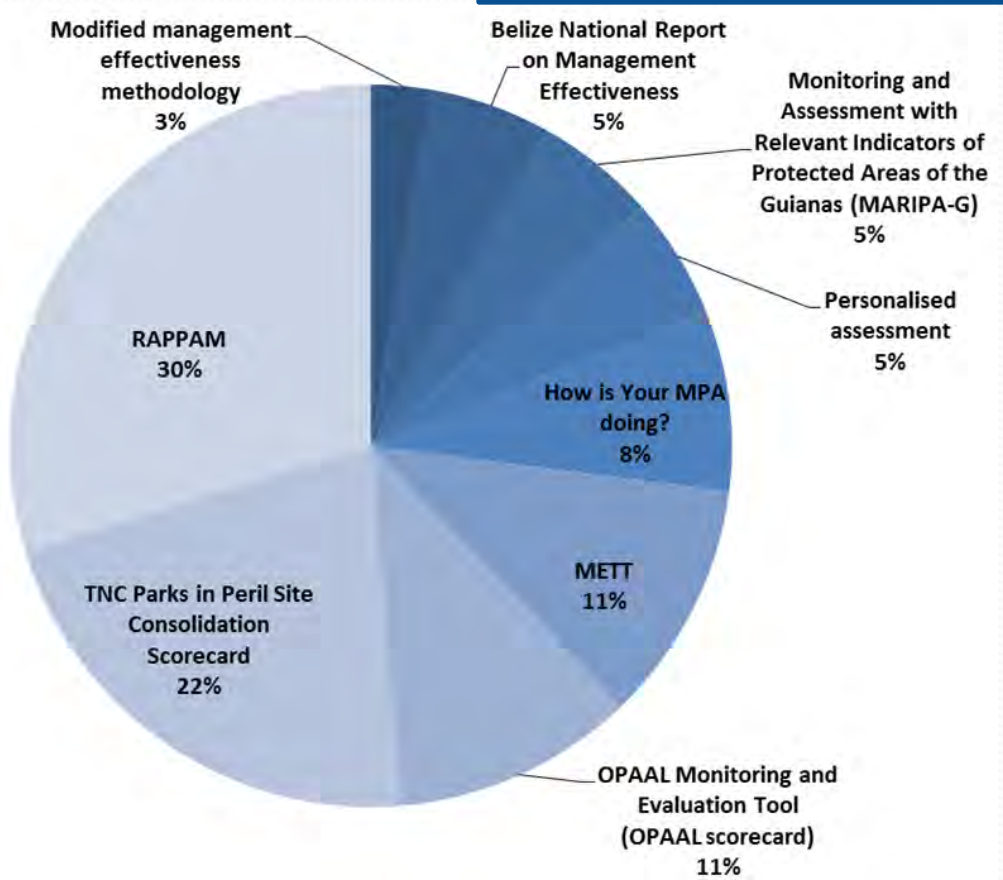
PAME assessments in the Caribbean ACP countries

Key findings

2) Tools

- 9 tools were identified

PAME methodology
Modified management effectiveness methodology Belize National Report on Management Effectiveness
Monitoring and Assessment with Relevant Indicators of Protected Areas of the Guianas (MARIPA-G)
Personalised assessment
How is Your MPA doing?
METT
OPAAL Monitoring and Evaluation Tool (OPAAL scorecard) TNC Parks in Peril Site Consolidation Scorecard
RAPPAM



International – 49%
Caribbean-specific – 33%
National – 13%
Area-specific – 5%

Methodology	Country
Belize National Report on Management Effectiveness	Belize
How is Your MPA doing?	Belize Jamaica St. Vincent and the Grenadines
METT	Bahamas Jamaica Suriname
Modified management effectiveness methodology	St. Vincent and the Grenadines
Monitoring and Assessment with Relevant Indicators of Protected Areas of the Guianas (MARIPA-G)	Guyana Suriname
OPAAL Monitoring and Evaluation Tool (OPAAL scorecard)	St. Lucia St. Vincent and the Grenadines
Personalised assessment	Bahamas
RAPPAM	Antigua and Barbuda Belize Bahamas Cuba Dominican Republic Grenada Jamaica St. Kitts and Nevis St. Lucia St. Vincent and the Grenadines
TNC Parks in Peril Site Consolidation Scorecard	Belize Dominica Dominican Republic Jamaica St. Vincent and the Grenadines

PAME assessments in the Caribbean ACP countries

Key findings

3) Conducting Organisations

Conducting organisation	Country	No. Assessments
CERMES	Belize	1
	Jamaica	1
	St. Vincent and the Grenadines	1
Coastal Zone Management Authority and Institute (Belize)	Belize	1
M.Sc. student	Cuba	1
NPAPSP task force (Belize)	Belize	3
St. Lucia National Trust	St. Lucia	2
TNC	Antigua and Barbuda	1
	Bahamas	1
	Belize	1
	Dominica	1
	Dominican Republic	4
	Grenada	1
	Jamaica	3
	St. Kitts and Nevis	1
	St. Lucia	1
	St. Vincent and the Grenadines	2
UNDP	Suriname	2

PAME assessments in the Caribbean ACP countries

Key findings

4) Gaps - Country and Site Level Gaps

- no documented PAME assessments were found for three of the 16 Caribbean ACP countries
  - 61 PAs (according to the WDPA)
- for some countries only a small number of assessment found
- Caribbean ACP countries (WDPA):
  - 914 PA sites
  - 78 documented PAME assessments were found

PAME assessments in the Caribbean ACP countries

Key findings

4) Gaps - Country and Site Level Gaps

- absence of data from the GD-PAME
- presence of various languages
- Studies have also reported that even for cases where assessments have been undertaken the information collected may remain unshared
  - reports are shared but no data is shared
  - data shared (no report generated)
  - data holders have been identified as being reluctant to release potentially controversial data for analysis
  - assessments are conducted for individual PAs by PA staff, with the information remaining in-house

PAME assessments in the Caribbean ACP countries

Key findings

4) Gaps – Assessment Frequency

- lack of repeat assessments!!!
  - majority of sites indicates that assessments were simply a one-of event and were never repeated

Multiple assessments:

- allow for tracking and monitoring over time
- allow for management initiatives to be reworked if necessary

Multiple assessment - area of concern:

- comparison of repeated collected data is the PAME methodology utilised
- may not allow for straight forward comparisons due to varying questions, indicators and scoring scales used

PAME assessments in the Caribbean ACP countries

Key findings

4) Gaps – Assessment Frequency

- Out of the 13 countries for which PAME assessment data were found
  - Suriname showed repeat assessments for a number of sites using the same methodology (i.e. the METT methodology)
  - The Tobago Cays Marine Park (St. Vincent and the Grenadines)
    - assessed a number of times utilising the same tool
    - Utilising different tools
    - different organisations
  - Other sites assessed utilising various tools
    - Point Sable Environmental Protection Area (St. Lucia)
    - Negril Marine Park (Jamaica)
    - Rio Bravo Conservation and Management Area (Belize)

Key Recommendations

1) Establishment of a PAME hub/repository

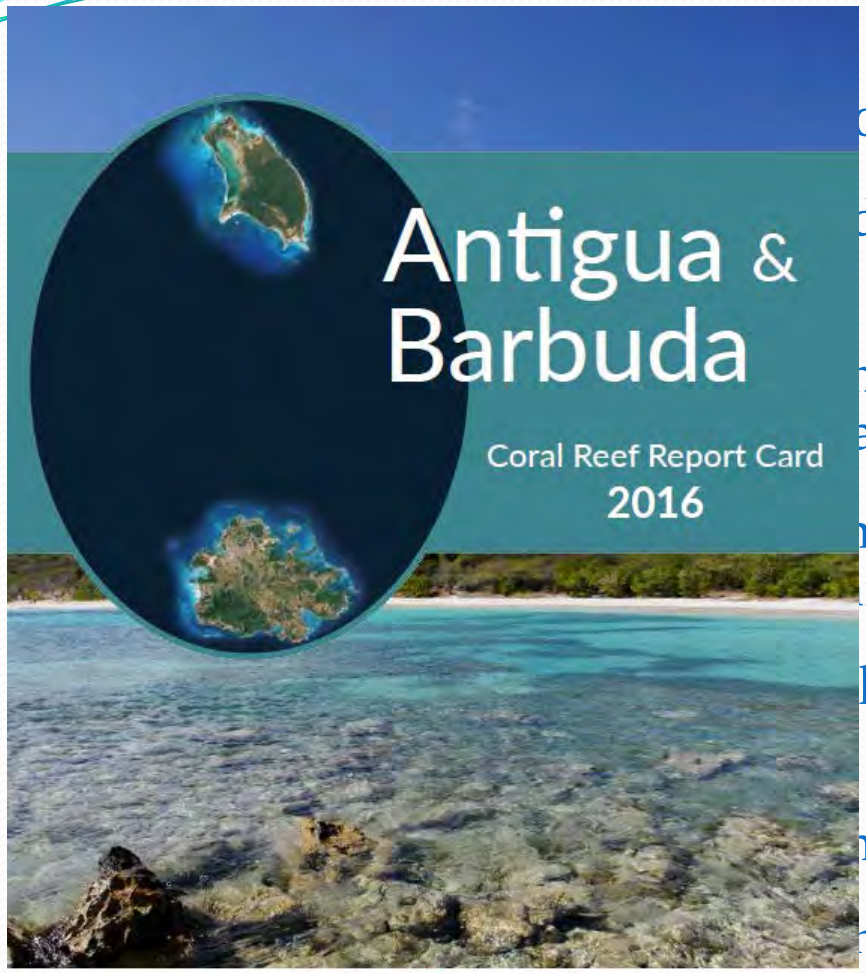
- directory of PAME competent persons and organisations
- directory of pipeline, ongoing and completed PAME projects within the Caribbean ACP countries
- repository of regional PAME documents (manuals, reports, case studies)
- database of management effectiveness scores (where possible)
- identify funding agencies with PAME experience and willingness to fund
- news pertaining to PAME capacity building and training events

Key Recommendations

2) Standardization of Caribbean PAME assessment methodologies

- perhaps into one or two methodologies
- allow for better comparison and interpretation of results
- at minimum, the methodologies utilised should be aligned with the WCPA frame work
  - where a subset of indicators and the scoring system used in each of the six elements of the framework remain the same for each methodology

Key Recommendations



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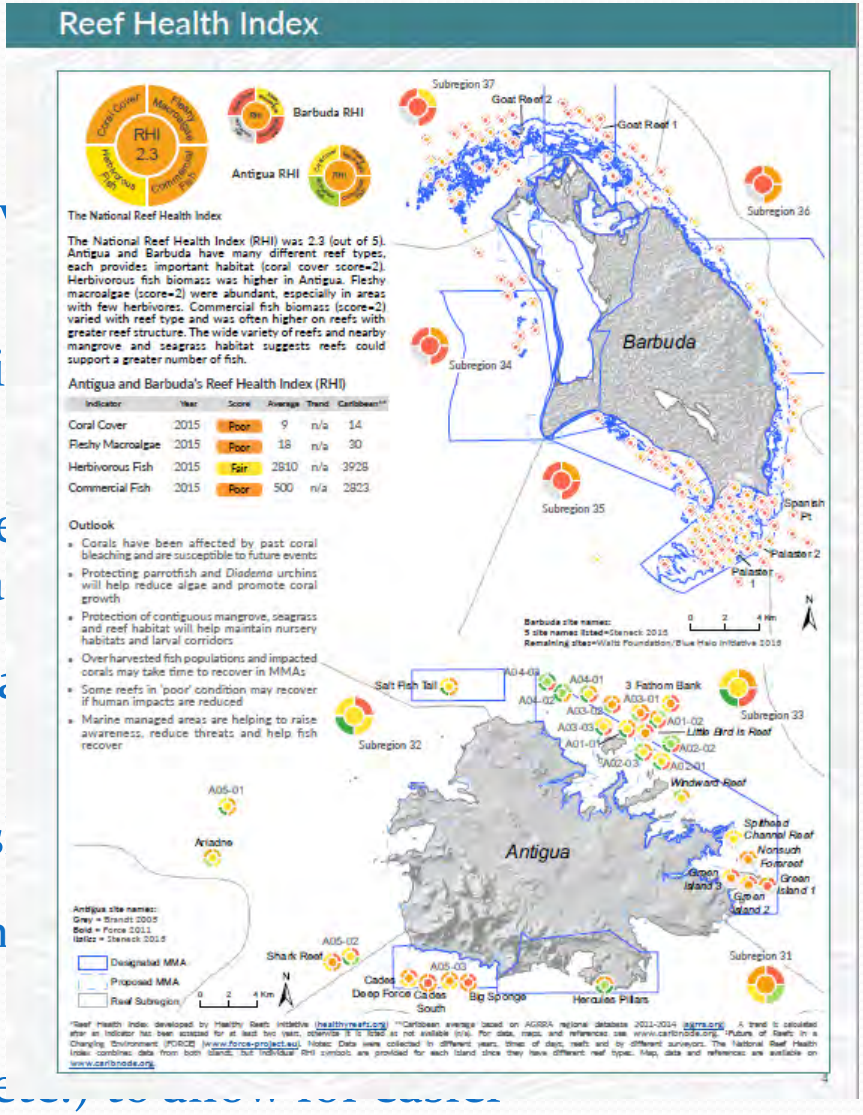

Key Recommendations

4) Development of sustainability plans

- addresses institutional capacitiy and financial planning
  - persons must be adequately trained
  - finances must be in place to facilitate assessment and generation of output products (e.g. data, documents, report card, apps etc.)

5) Data to decisions

- incorporation of data in to the decision making process
- inform policy
  - development of open data policies and framework
  - would allow for the opening up of key datasets
  - have far reaching effects on our livelihoods, food security and general well-being

References

- Hill, R., Miller, C., Newell, B. et al. (2015).Why biodiversity declines as protected areas increase: the effect of the power of governance regimes on sustainable landscapes.Sustainability Science 10: 357. https://doi.org/10.1007/s11625-015-0288-6
- Hockings, M., S. Stolton, F. Leverington, Dudley, N. and J. Courrau. 2006. Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas. 2nd edition. IUCN, Gland, Switzerland and Cambridge, UK. xiv + 105 pp.
- Hsu, A. et al. (2016). 2016 Environmental Performance Index. New Haven, CT: Yale University. Available at www.epi.yale.edu
- Leverington, F. and M. Hockings. 2004. Evaluating the effectiveness of protected area management: the challenge of change. In: Barber CV, Miller KR, Boness M (eds) Securing protected areas and ecosystem services in the face of global change. IUCN, WCPA, WRI, Gland, Switzerland, pp 169–214
- Leverington, F., M. Hockings, H. Pavese, K. L. Costa and J. Courrau. 2008. Management effectiveness evaluation in protected areas - a Global Study. Supplementary report No.1: Overview of approaches and methodologies. University of Queensland, TNC, WWF, IUCNWCPA, Gatton, Australia.