

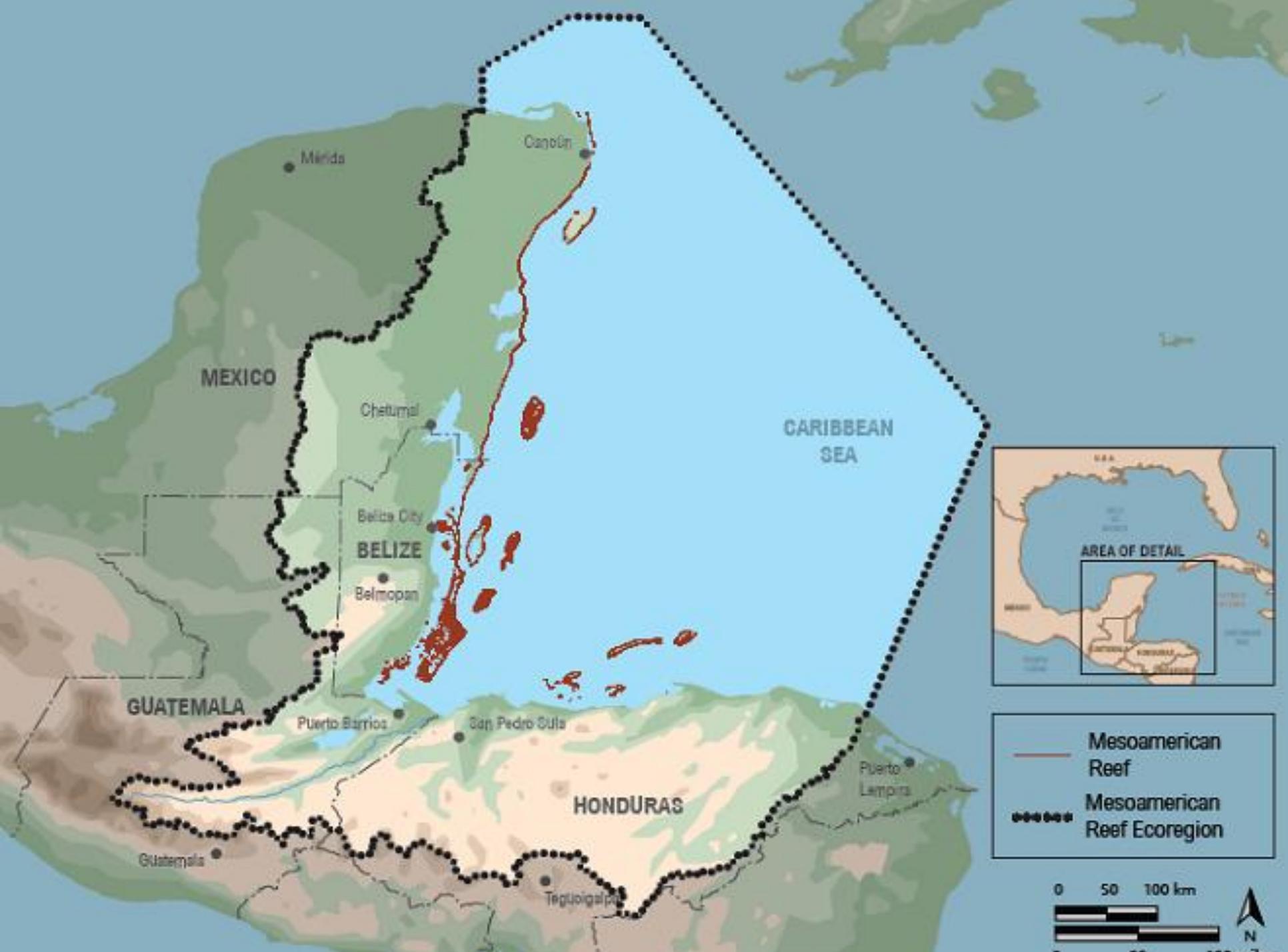
Evaluating Management Success at Larger Spatial Scales (Beyond My MPA)

I. Meta-analysis of MPA Management
Effectiveness Evaluations in the
Mesoamerican Reef

II. Reefs @ Risk Global MPA Analysis

III. Eco-Audit of Mesoamerican Reef Countries

Melanie McField, Healthy Reefs for Healthy People
Lauretta Burke, World Resources Institute



MEXICO

Mérida

Cancún

Chetumal

Belize City

BELIZE

Belmopan

GUATEMALA

Puerto Barrios

San Pedro Sula

HONDURAS

Guatemala

Teguigalpa

Puerto Lempira

CARIBBEAN SEA

AREA OF DETAIL

Mesoamerican Reef
Mesoamerican Reef Ecoregion

0 50 100 km



The challenges of scaling up: integrating results from different management effectiveness evaluations

**A case study of Mesoamerican Reef Region:
2007**

***Sandra Hudina¹, Melanie McField²,
Helen E. Fox³***

1 Oxford University, Oxford, UK;

2 Smithsonian Institution and WWF, Belize;

3 WWF – Conservation Science, Washington DC

What can be achieved ?

At the site
level



- To inform management – adaptive cycle
- Improve strategic planning
- Promote accountability

At regional
scale



A tool for national managers and conservation planners to track progress across the MPA networks

***Should result in better managed protected areas
and overall improved ecosystem health***

MEE Status (2007)

>25 evaluation methodologies for MPA mgt effectiveness worldwide

5 evaluation methodologies applied in Mesoamerican Reef Region (MAR)

New methodologies being developed nationally within the MAR

These methodologies all differ significantly in terms of

- **Comprehensiveness of their major assessment fields (biophysical, socio-economic and governance)**
- **Comprehensiveness of the indicators within each field**
- **Ranking or evaluation process**

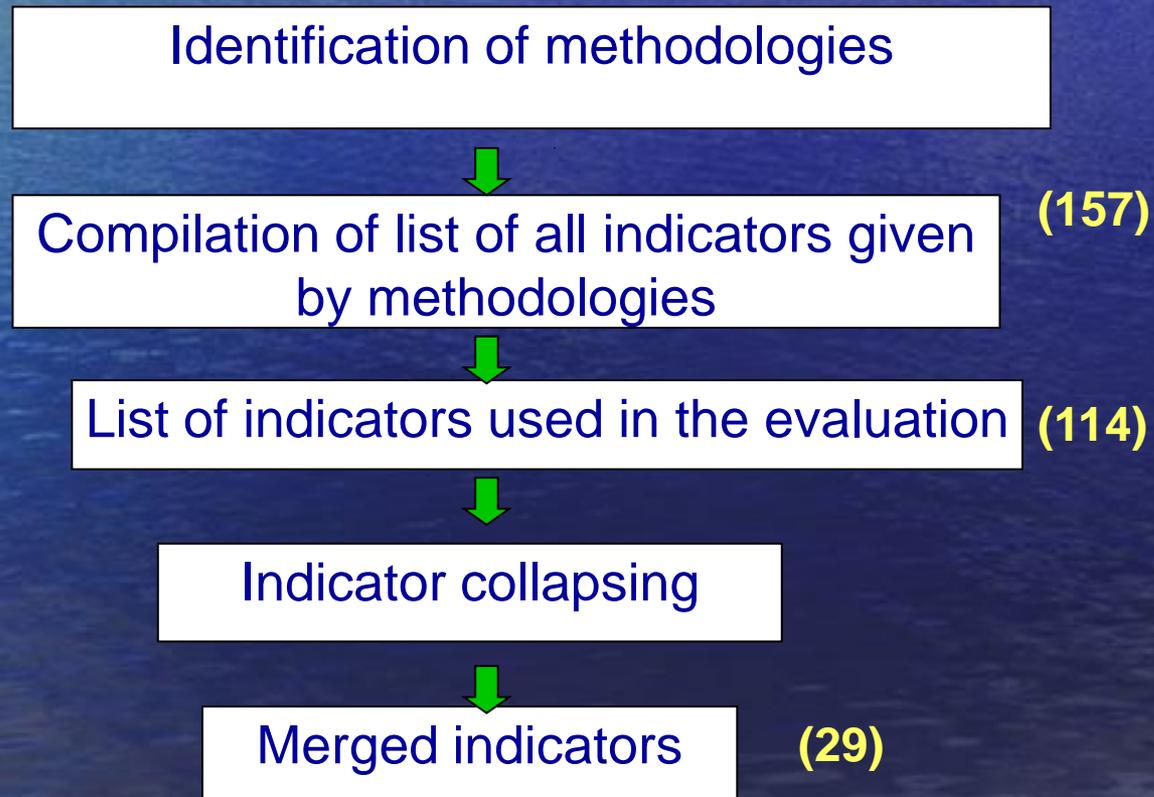
Data Analyzed in this Study

- 5 methodologies, 4 of which were used in the analyses
- evaluation reports for 7 MPAs from 2 countries in the region (Belize & Mexico)
- 2 sites evaluated more than once
- NO MPA used the same methodology more than once

10 evaluation reports analysed

5 Steps In The Framework Development

1) Defining the list of merged indicators



MAJOR FINDINGS

High variation in the fields covered and the frequency of use of merged indicators

29 potential indicators (merged indicators) identified as common to analysed methodologies

BUT

Few were actually employed in the evaluations

- None of the evaluations covered all merged indicators

- Only 2 common indicators throughout all evaluations
 1. Existence of Management plan
 2. Level of stakeholder participation

Difficult to compare the results at the level of specific indicators

This Meta-analysis failed to compare the management effectiveness results from different methodologies because

- Differences in the robustness of methodologies
- Differences in comprehensiveness of methodologies

Impossible to develop an

Integrated Management Effectiveness Index

Without a common suite of indicators and robust process

The Best Solution Is The Most Obvious Solution - Apply A Standardized Methodology Throughout The Region

Inaccurate conclusions will be drawn if results in their 'raw' form are compared

Manipulation of data can produce misleading results

Collection of data on management effectiveness throughout the years, each time applying different methodology limits the potential of use and insightfulness of acquired information in the long-term

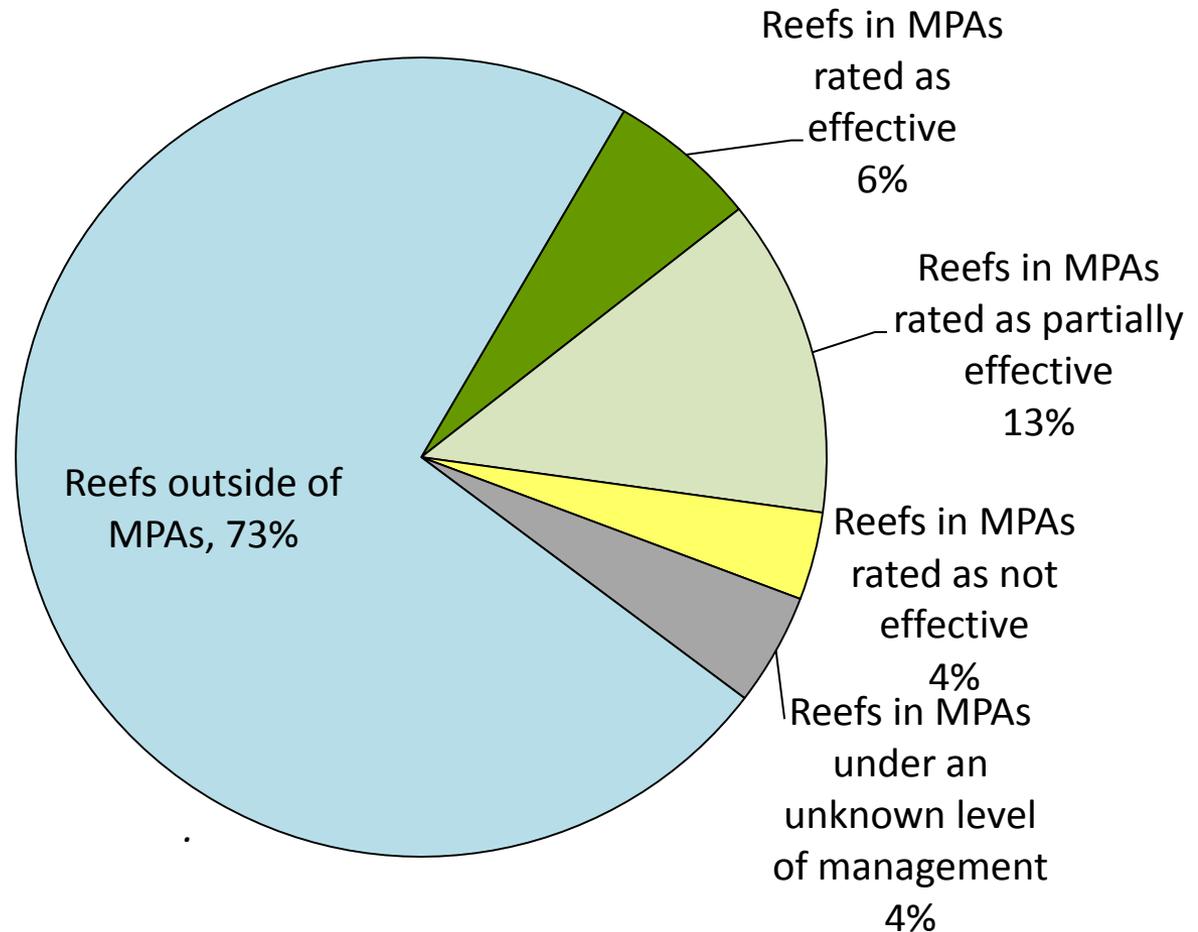
2012 UPDATE & CONCLUSION

No regionally adopted methodology currently in use (all 4 countries)

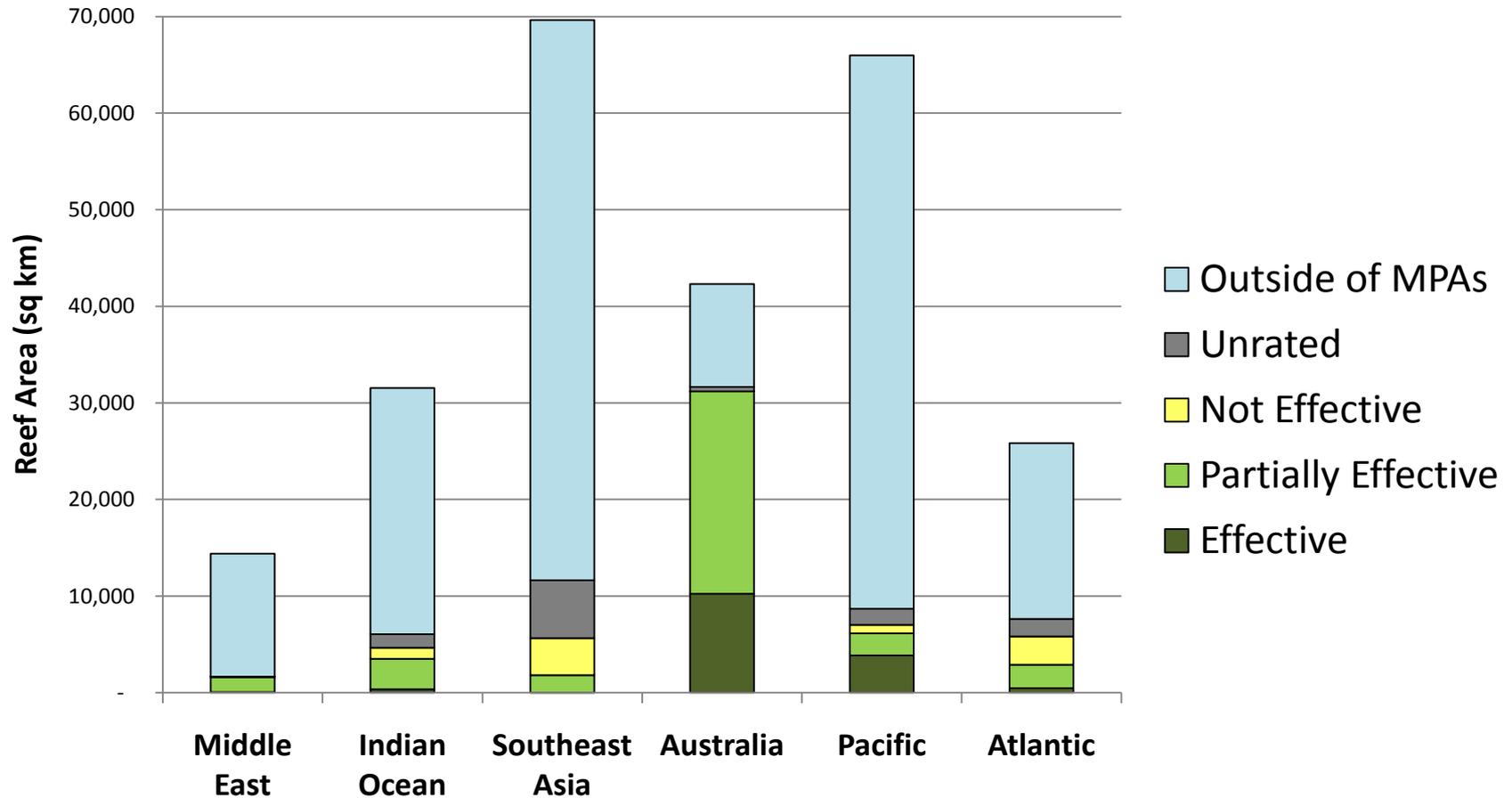
Belize has officially adopted a nationally produced methodology and applied it recently

Need for standardization – at least for a few key indicators at global scale

Coverage of the World's Coral Reefs by MPAs and Effectiveness Level



MPA Coverage and Effectiveness of Reef Area per Region





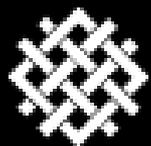
Kip Evans/Mission Blue

Evaluating Reef Health and Management Response in the Mesoamerican Reef



Healthy Reefs
for healthy people

**Melanie McField, Lorenzo Alvarez
Filip, Ian Drysdale, Marisol Rueda,
Roberto Pott, Ana Giro**



WORLD RESOURCES INSTITUTE

Lauretta Burke and Ben Kushner

Need to Scale-up our Questions & Evaluations

Are we doing all that we can to help the reef?



Are management efforts having an impact on reef health?





Healthy Reefs Scaling Up Through Collaboration

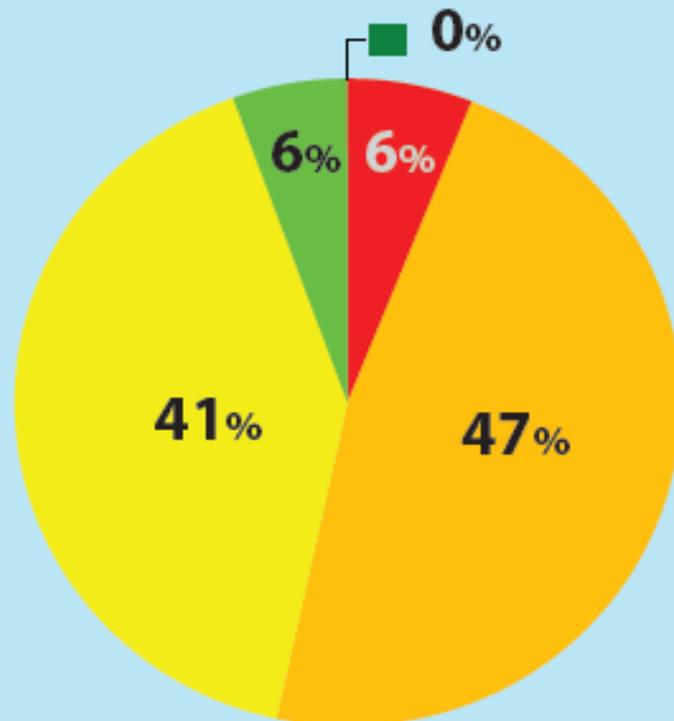
for healthy people



Despite increasing management efforts the reef declines continue.

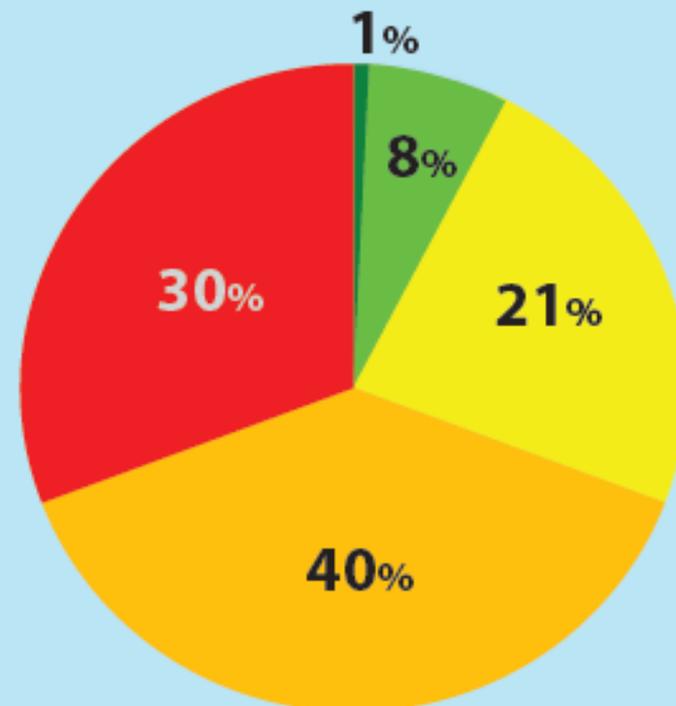
PERCENT OF REEFS IN DIFFERENT CONDITIONS

2008 Report Card



326 sites - 7 indicators
Based on 2005/06 data

2010 Report Card



130 sites - 4 indicators
Based on 2009/10 data

Very Good Good Fair Poor Critical

The 2011 Eco-Audit

Measuring Management Progress at a National Scale

Indicators taken directly from Report Card recommendations

Developed specific and verifiable criteria (reviewed by Price WaterhouseCoopers)

All Countries held to the same bar



2011 ECO-AUDIT
of the Mesoamerican Reef Countries

Are we protecting our most valuable natural asset?

The Mesoamerican Reef (MAR) provides a diverse array of goods and services to the people of Belize, Guatemala, Honduras, and Mexico. It is our shared heritage. Unfortunately, the health of the reef is declining, as documented by the 2008 and 2010 Report Cards published by the Healthy Reefs Initiative. The decline stems, at least in part, from inadequate management of threats to coral reefs. This Eco-Audit **evaluates** our efforts to protect and sustainably manage the region's coral reefs; **celebrates** management success stories; and **documents** the extent to which recommended management actions have been implemented in Belize, Guatemala, Honduras, and Mexico. It seeks to **catalyze** faster, more effective management responses and to **increase accountability** within the public and private sectors and among nongovernmental organizations (NGOs).

AN INNOVATIVE, RIGOROUS PROCESS

The Healthy Reefs Initiative (HRI), in collaboration with the World Resources Institute (WRI) and local partners, developed and implemented the first-ever multinational Eco-Audit of the Mesoamerican Reef Countries.

Evaluation criteria are comprehensive and inclusive. Twenty-two standardized management indicators were developed across seven themes, such as fisheries management and coastal zone management. The Eco-Audit draws on input from a variety of NGOs, governmental agencies, and the private sector, and includes transparently verified and publicly available results. In September and October 2011, HRI and WRI convened four national workshops, whose purpose was for participants to collectively rank each indicator and to compile documents to verify the rankings.

Analysis is objective, science-based, and validated. HRI and its regional partners are committed to maintaining audit standards that are unbiased, fact-based, transparent, and replicable. The financial and management auditing firm of PricewaterhouseCoopers Costa Rica (PwC) reviewed the methodology and provided feedback on the processes, indicators, and quality of the verification documentation.

Data quality will be enhanced over time. This first Eco-Audit establishes a baseline regarding the status of reef ecosystem management efforts. The results are intended to guide data collection and compilation for future Eco-Audits, which will occur every two years. These biennial Eco-Audits and the biennial HRI Reef Report Cards will occur in alternating years, thereby providing a routine accounting of reef health and efforts to improve it. As data collection becomes more complete and the database grows, we anticipate that the Eco-Audit will evolve, becoming more quantitative and comprehensive in its evaluation of management efforts.

A CALL TO ACTION

The results of the Eco-Audit are intended to instill a sense of urgency, accountability, and shared responsibility among all institutions—NGOs, governments, and the private sector—with a stake and responsibility for maintaining the MAR as a healthy, biologically vibrant, and economically viable resource for generations to come. The audit seeks to hold high-level decision-makers accountable, while identifying actions needed to protect the MAR.



Mesoamerican Reef Ecoregion Map

WHAT IS AN ECO-AUDIT?

An eco-audit is a systematic multinational evaluation of the implementation of recommended reef management actions by governments, NGOs, and the private sector. This Eco-Audit includes 22 indicators across 7 themes and over 300 supporting documents within the following components:

- An interactive document that provides an overview of each indicator, including its justification, ranking criteria, and data collection methods (McField and Kulkarni 2011)
- Detailed worksheets of Eco-Audit results and observations for each country
- Compilations of all publicly available verification documentation for each indicator by country

These products, along with additional information about the Eco-Audit, are available online at www.healthyreefs.org and www.wri.org/reefs.

Organized by:  Healthy Reefs (for healthy reefs)

World Resources Institute  PwC 

Sponsored by:  OAK FOUNDATION 

2011 Eco-Audit



All docs on www.healthyreefs.org
and www.wri.org/reefs

Description of Indicators

The 2011 Eco-Audit Process



PriceWaterhouseCoopers
Costa Rica assisted the process

- Indicator Criteria
- Means of Verification
- Documentation
- Transparency
- Repeatability

2011 ECO-AUDIT

of the Mesoamerican Reef Countries

Are we protecting our most valuable natural asset?

- Unprecedented in scale and scope
- Four countries
- Over 40 organizations
- Over 100 individuals
- Over 300 supporting documents collected
- Evaluated 22 indicators over 7 themes
- Serves as basis for measuring future progress

Key to Results at a Glance



1

VERY
POOR



2

POOR



3

FAIR



4

GOOD



5

VERY
GOOD



	REGION	BELIZE	GUATEMALA	HONDURAS	MEXICO					
RESULTS BY THEME	2.7		3.3		2.2		2.7		2.7	
Marine Protected Areas										
Ecosystem-based Fisheries Management										
Coastal Zone Management										
Sanitation and Sewage Treatment										
Research, Education and Awareness										
Sustainability in the Private Sector										
Global Issues										

All docs on www.healthyreefs.org

Indicators can also be evaluated by sector

RESULTS BY SECTOR

REGION

Private Sector



Non-Governmental Organizations (NGO's)



Government



Joint Government-NGO



All docs on www.healthyreefs.org

The 2011 Eco-Audit TEAM

- Melanie McField, Healthy Reefs Initiative
- Benjamin Kushner and Laretta Burke, World Resources Institute
- **Country Leads**
 - Marisol Rueda Flores, Healthy Reefs Initiative Mexico
 - Ian Drysdale, Healthy Reefs Initiative Honduras
 - Ana Giro, Healthy Reefs Initiative Guatemala
 - Roberto Pott, Healthy Reefs Initiative Belize
- **GIS Database**
 - Lorenzo Álvarez Filip, Healthy
- **PricewaterhouseCoopers Costa Rica (PwC) Technical Reviewers**
 - Antonio Grijalba
 - Monica Azofeifa
 - Claudia Amaya
 - Ximena Lacayo

Work with the media to put reef management issues on the front burner of popular politics



We need to raise the bar and pick up the pace of management efforts

