Indicators and tools for MPA management effectiveness and conservation success

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IUCN World Commission on Protected Areas - Marine

Why assess management effectiveness?

- Determine if objectives are being met and adapt management if they are not
- Identify threats, needs, changes in context, and improve planning
- Provide information to develop priorities and funding proposals
- Establish accountability for expenditure
- Identify issues within or beyond the control of the manager
- Report on progress – to managers, stakeholders, nationally, regionally, globally
- Provide lessons learned for others

An assessment is a tool to help managers: like annual service check-ups of domestic appliances and cars, it should be a periodic check to make sure things are working and to trouble-shoot for problems.

If your MPA was a bush taxi…

would it look like this:

Or this?

Convention on Biological Diversity

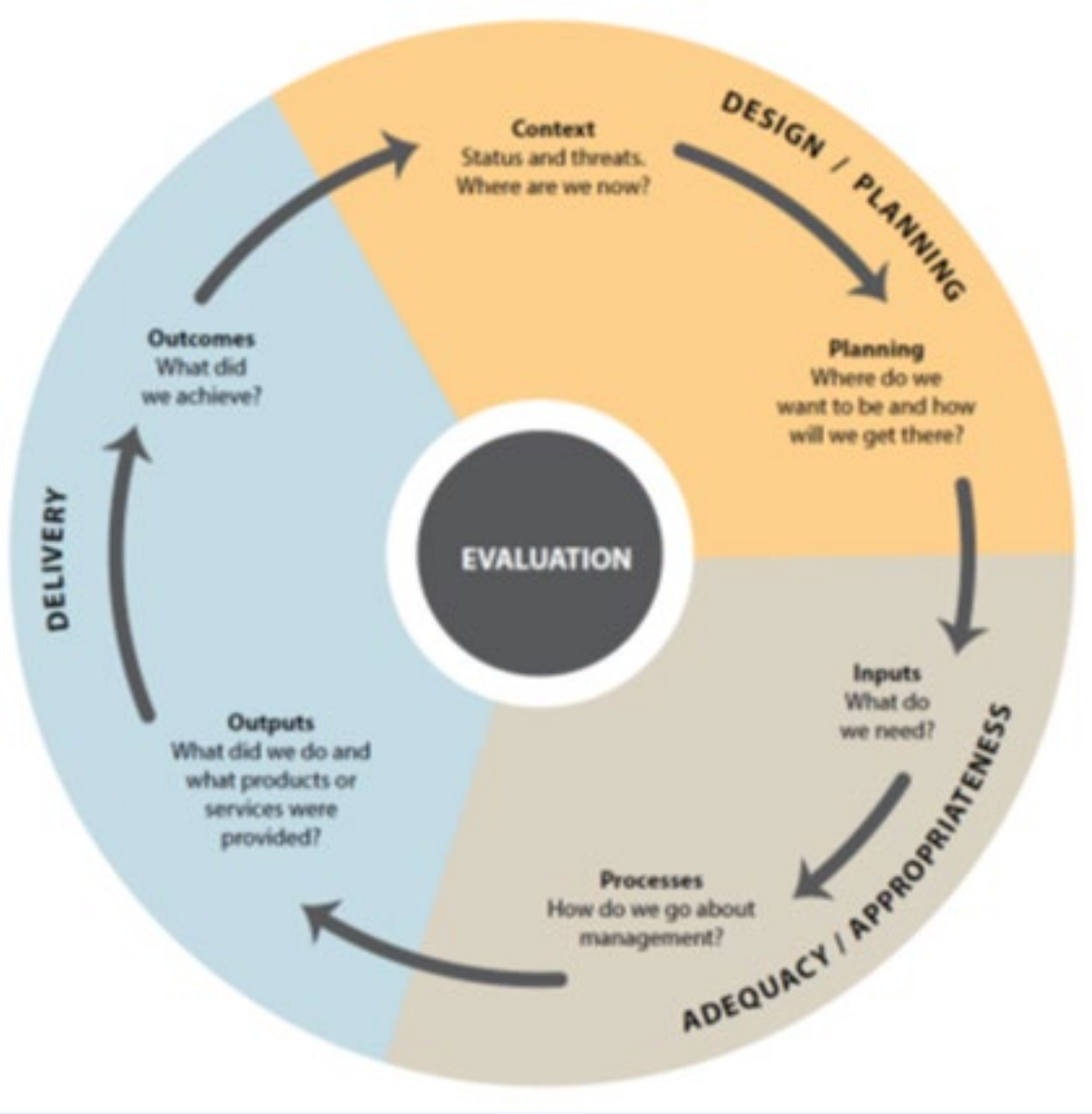
Target 3 - Kunming-Montreal Global Biodiversity Framework

……by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, ……., are **effectively conserved and managed** through

ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures

…….

Effective MPA management = Adaptive Management



- **Context** understood
- Good **design**
- **Well planned** - threats, needs, issues and priorities identified
- **Inputs - resources** adequate and appropriately allocated
- Processes - t**ransparent** and **accountable**
- Progress towards **objectives**
- **Management adapted** and improved; lessons learnt

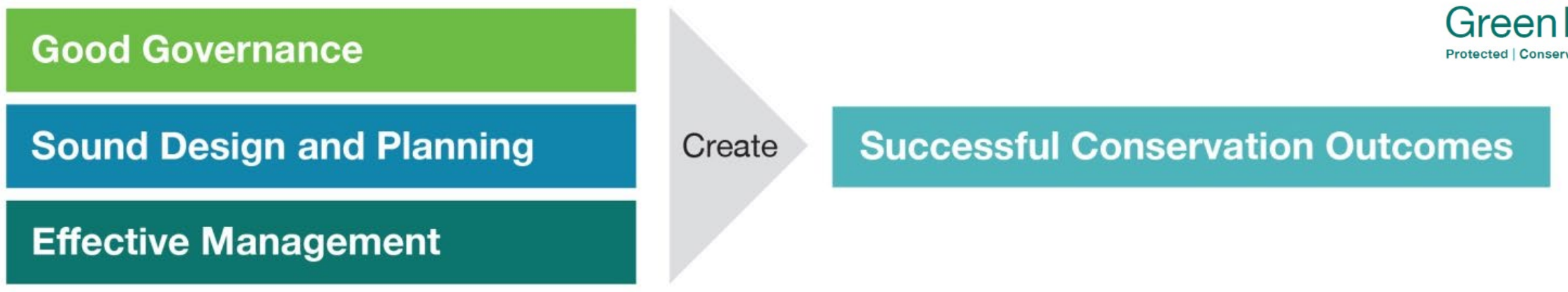
MPA management effectiveness assessment - definition

"**the assessment of how well the MPA is being managed – primarily the extent to which it is protecting values and achieving goals and objectives**"

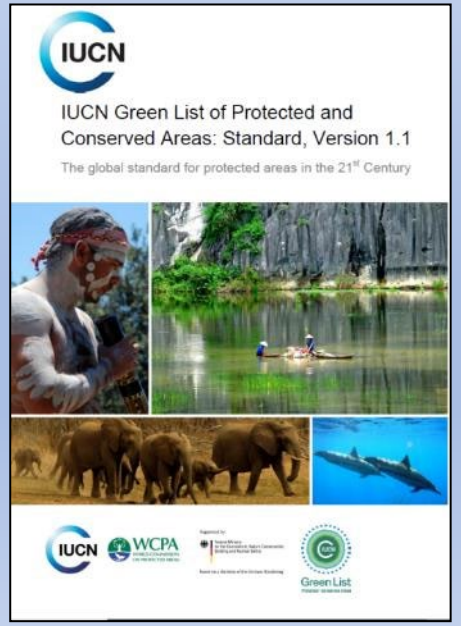
Assessment of:

- design issues relating to both individual sites and protected area systems;
- adequacy and appropriateness of management systems, processes and governance; and
- delivery of protected area objectives including conservation of values

IUCN Green List Standard



- Universal Standard for effective area-based conservation - international benchmark for quality
- Aimed at motivating improved performance and achievement of conservation objectives
- Applies to all types of protected areas and OECMs



IUCN Green List Standard components

4 Components, 17 Criteria, 50 Indicators

Good Governance

- **1.1** Guarantee Legitimacy and Voice
- **1.2** Achieve Transparency and Accountability
- **1.3** Enable Governance Vitality and Capacity to Respond Adaptively

Sound Design and Planning

- **2.1** Identify and Understand Major Site Values
- **2.2** Design for Long-Term Conservation of Major Site Values
- **2.3** Understand Threats and Challenges to Major Site Values
- **2.4** Understand Social and Economic Context

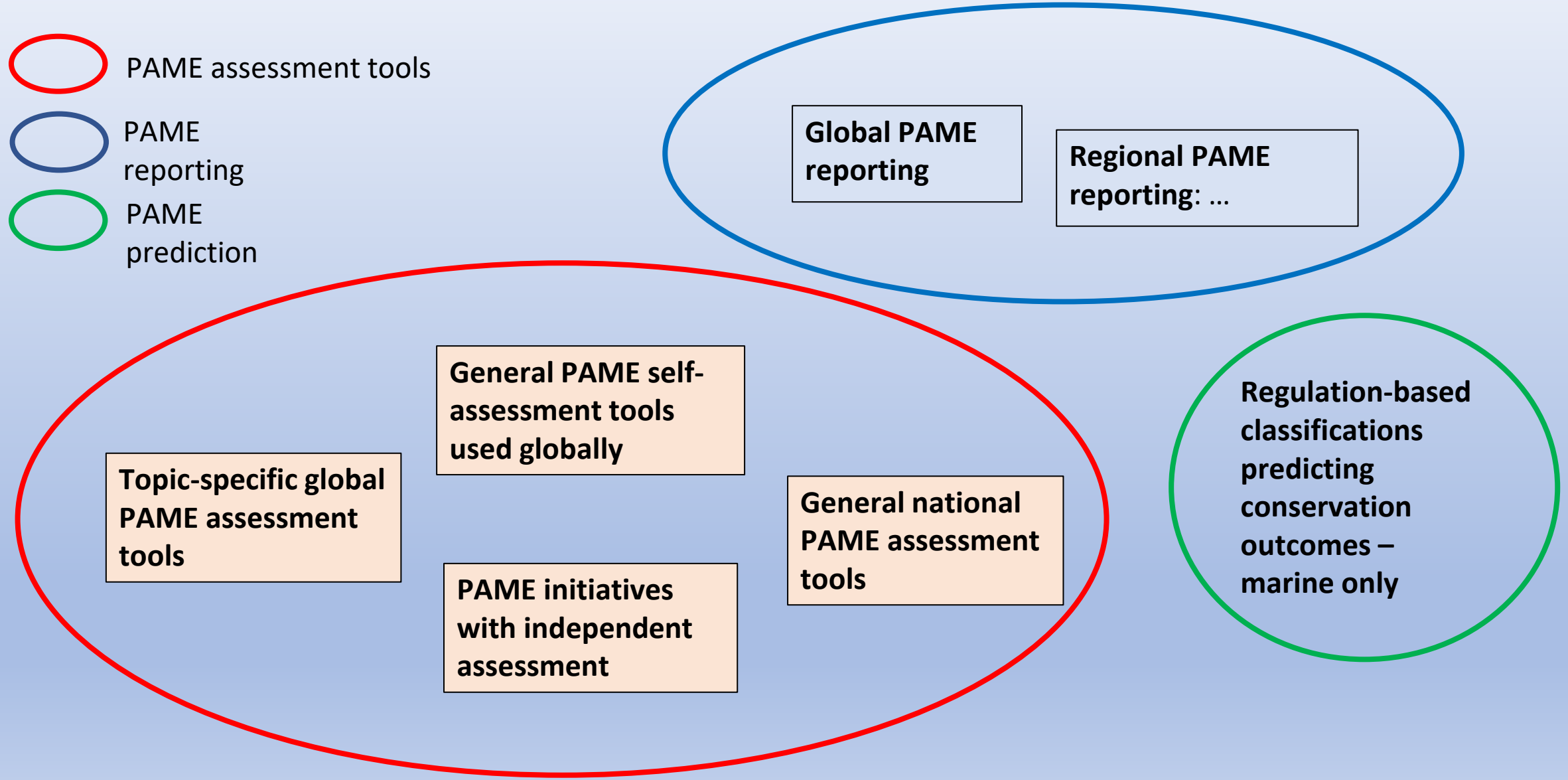
Effective Management

- **3.1** Develop and Implement a Long Term Management Strategy
- **3.2** Manage Ecological Condition
- **3.3** Manage Within Social and Economic Context of the Area
- **3.4** Manage Threats
- **3.5** Effectively and Fairly Enforce Laws and Regulations
- **3.6** Manage Access, Resources Use and Visitation
- **3.7** Measure Success

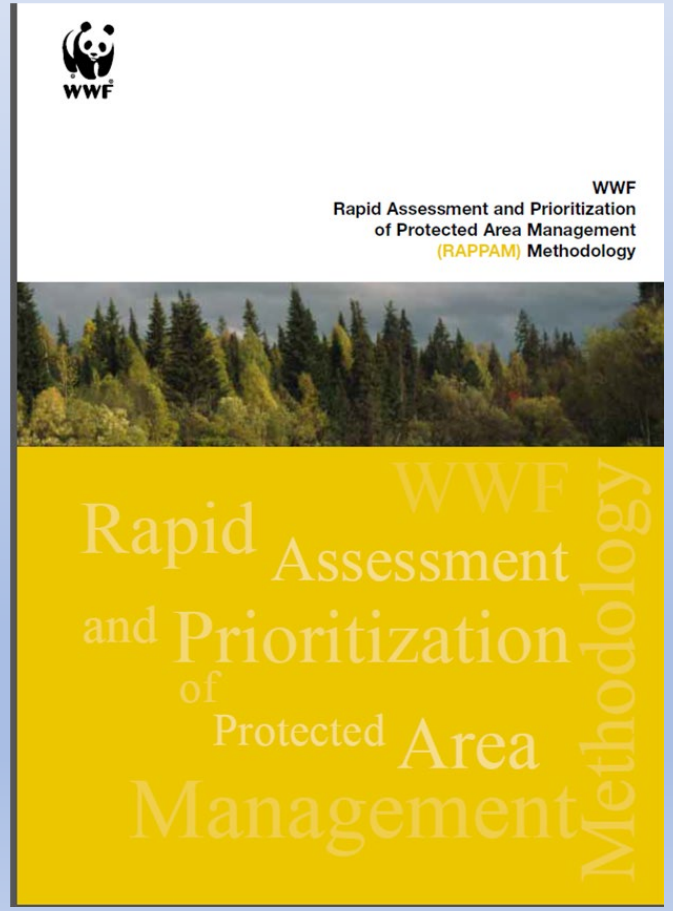
Successful Conservation Outcomes

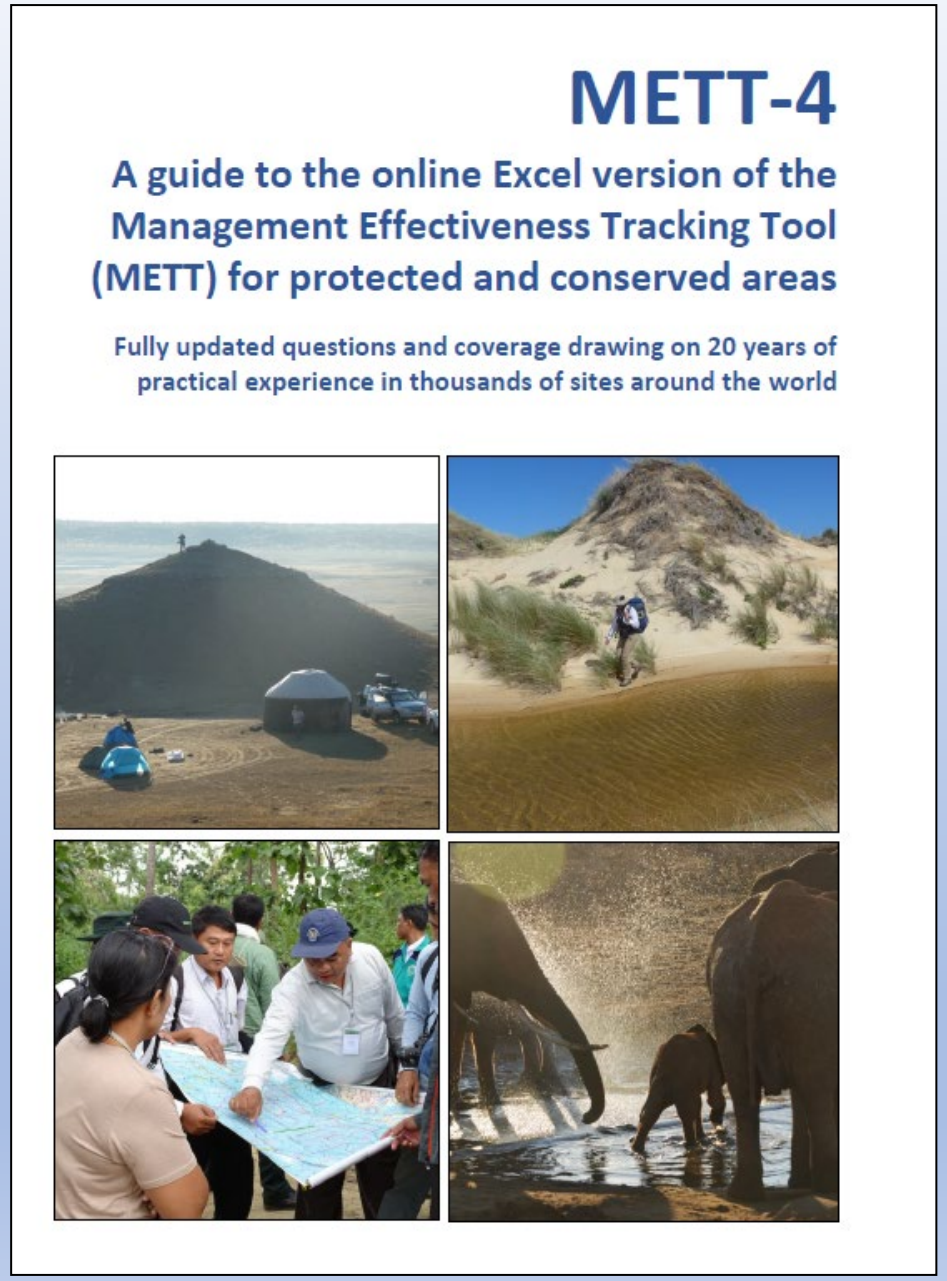
- **4.1** Demonstrate Conservation of Major Natural Values
- **4.2** Demonstrate Conservation of Major Associated Ecosystem Services
- **4.3** Demonstrate Conservation of Cultural Values

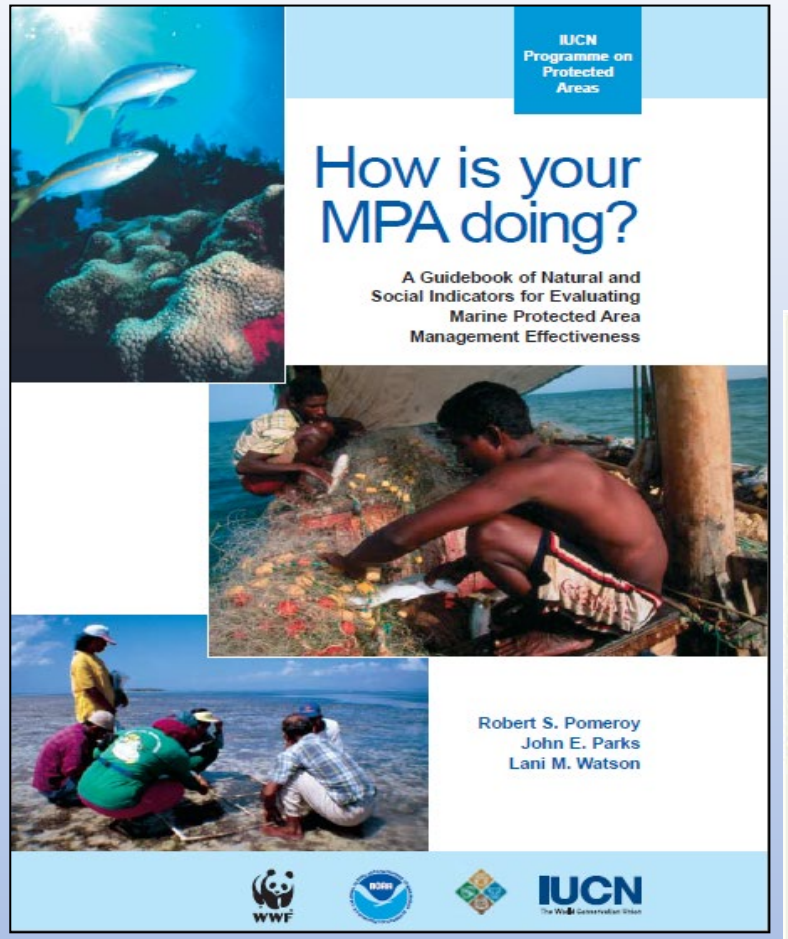
PAME assessment and reporting

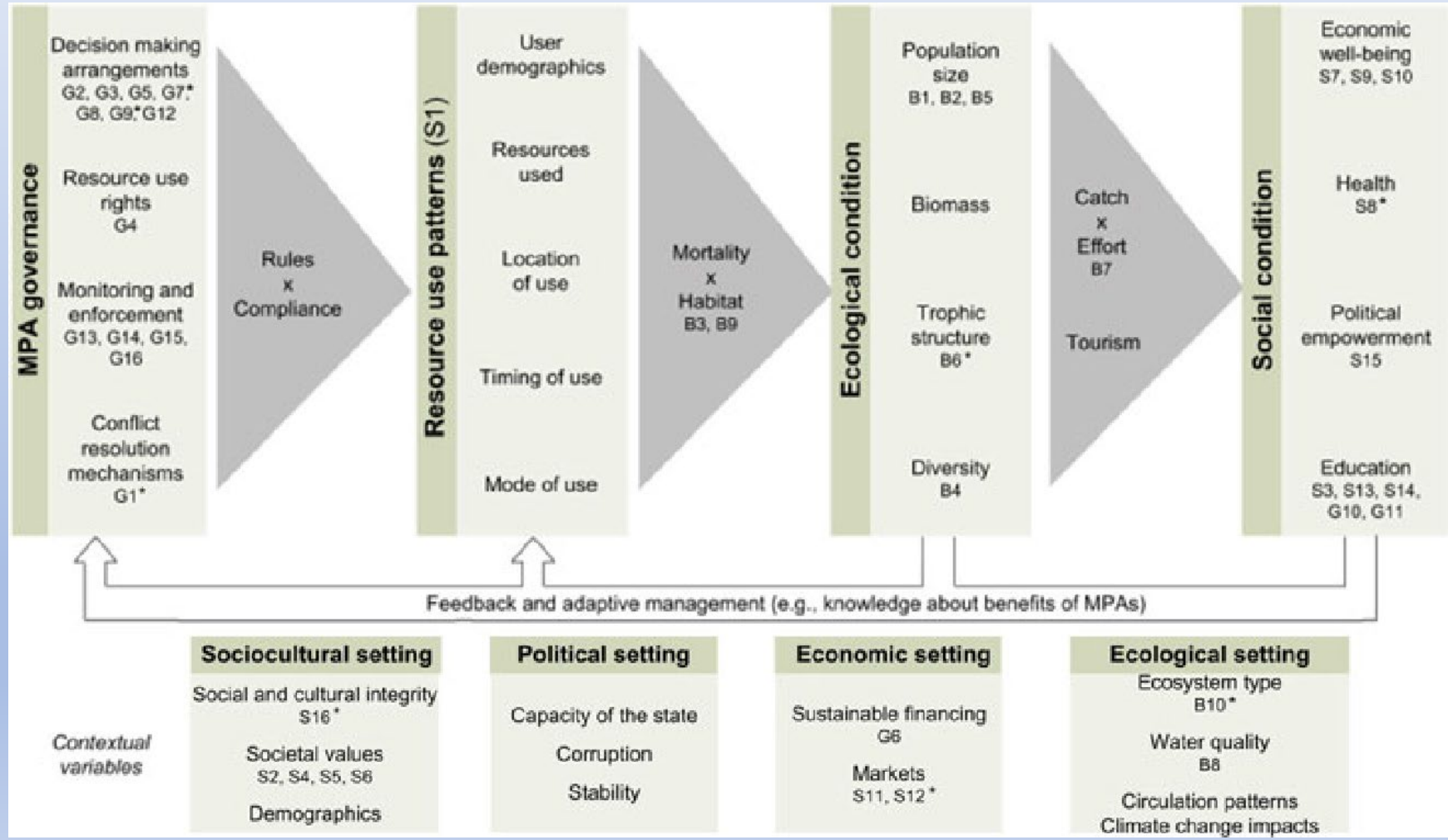


Overview of assessment tools

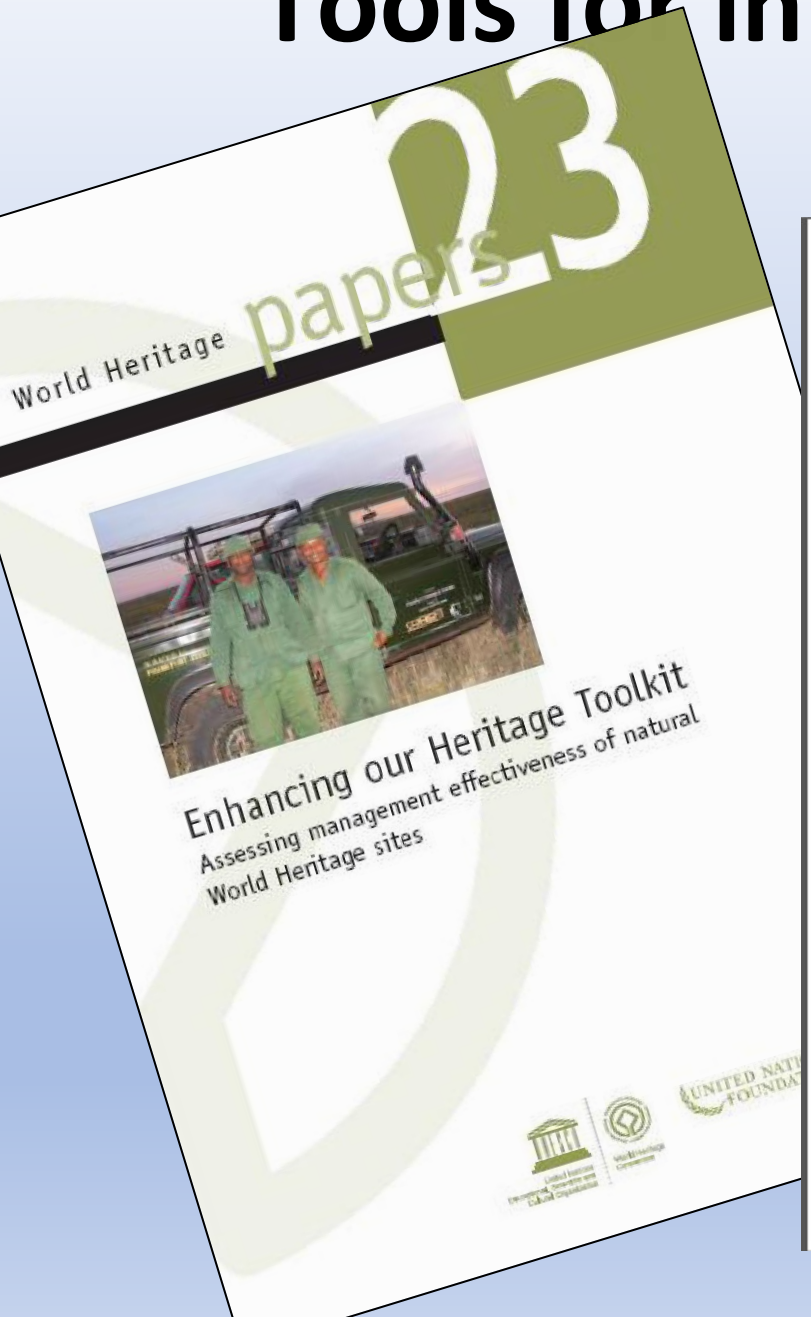


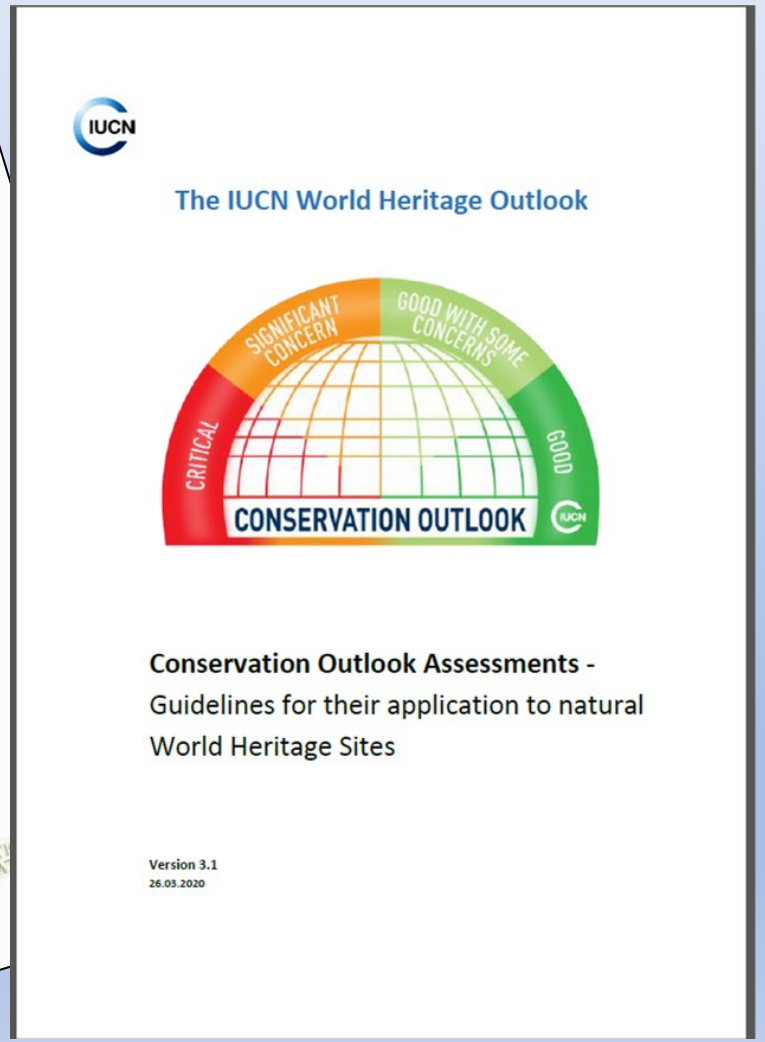


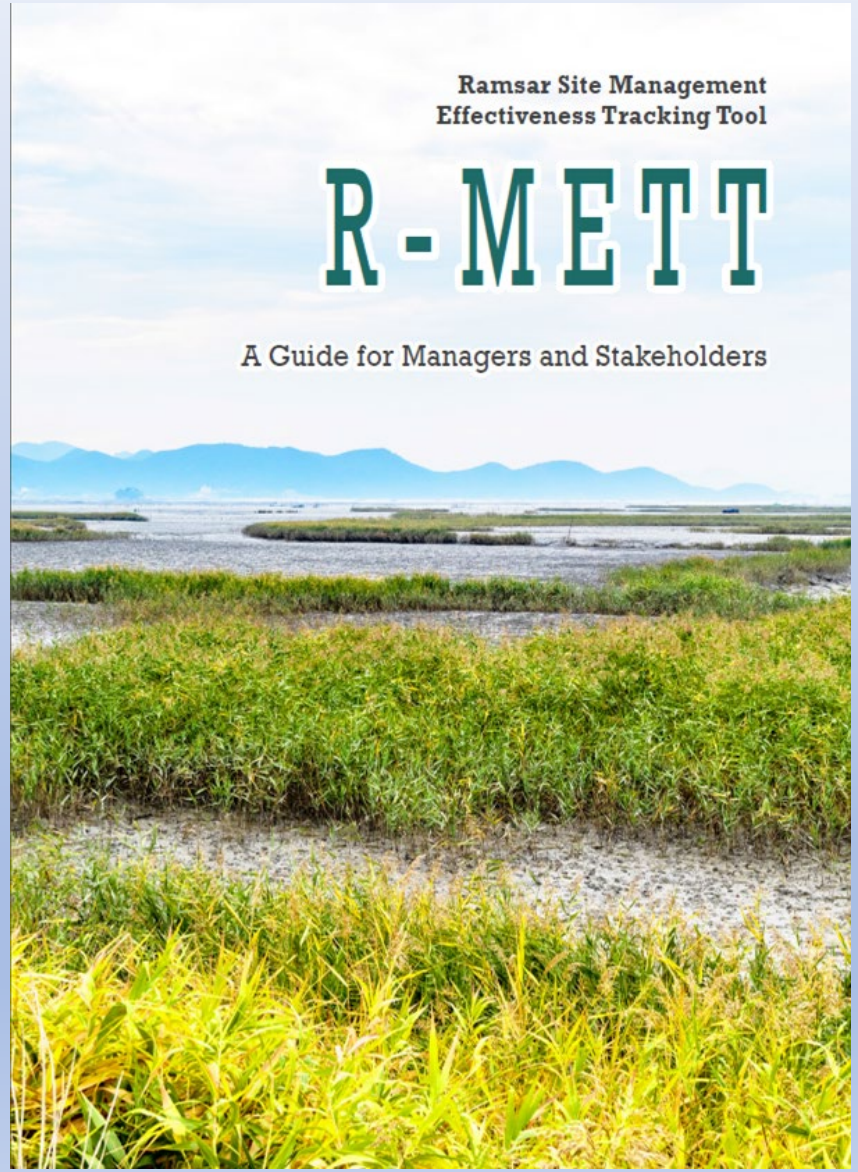

IUCN Programme on Protected Areas
How is your MPA doing?
A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Area Management Effectiveness
Robert S. Pomeroy
John E. Parks
Lani M. Watson
WWF
IUCN


MPA governance
Decision making arrangements G2, G3, G5, G7*, G8, G9*, G12
Resource use rights G4
Monitoring and enforcement G13, G14, G15, G16
Conflict resolution mechanisms G1*
Rules x Compliance
Resource use patterns (S1)
User demographics
Resources used
Location of use
Timing of use
Mode of use
Mortality x Habitat B3, B9
Ecological condition
Population size B1, B2, B5
Biomass
Trophic structure B6*
Diversity B4
Catch x Effort B7
Tourism
Social condition
Economic well-being S7, S9, S10
Health S8*
Political empowerment S15
Education S3, S13, S14, G10, G11
Feedback and adaptive management (e.g., knowledge about benefits of MPAs)
Contextual variables
Sociocultural setting
Social and cultural integrity S16*
Societal values S2, S4, S5, S6
Demographics
Political setting
Capacity of the state
Corruption
Stability
Economic setting
Sustainable financing G6
Markets S11, S12*
Ecological setting
Ecosystem type B10*
Water quality B8
Circulation patterns
Climate change impacts

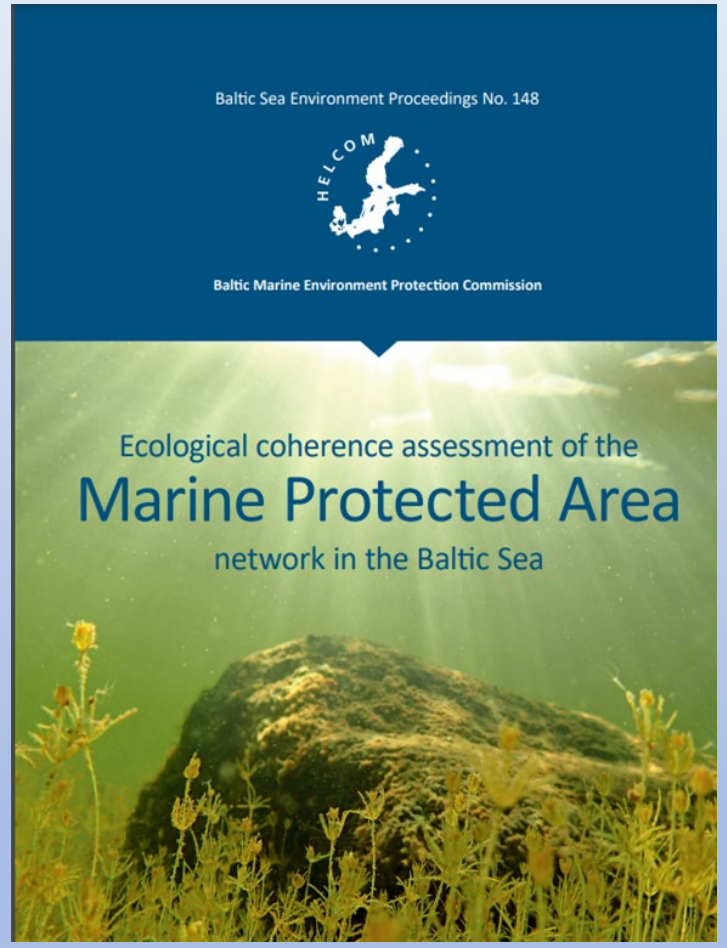
Tools for international designations

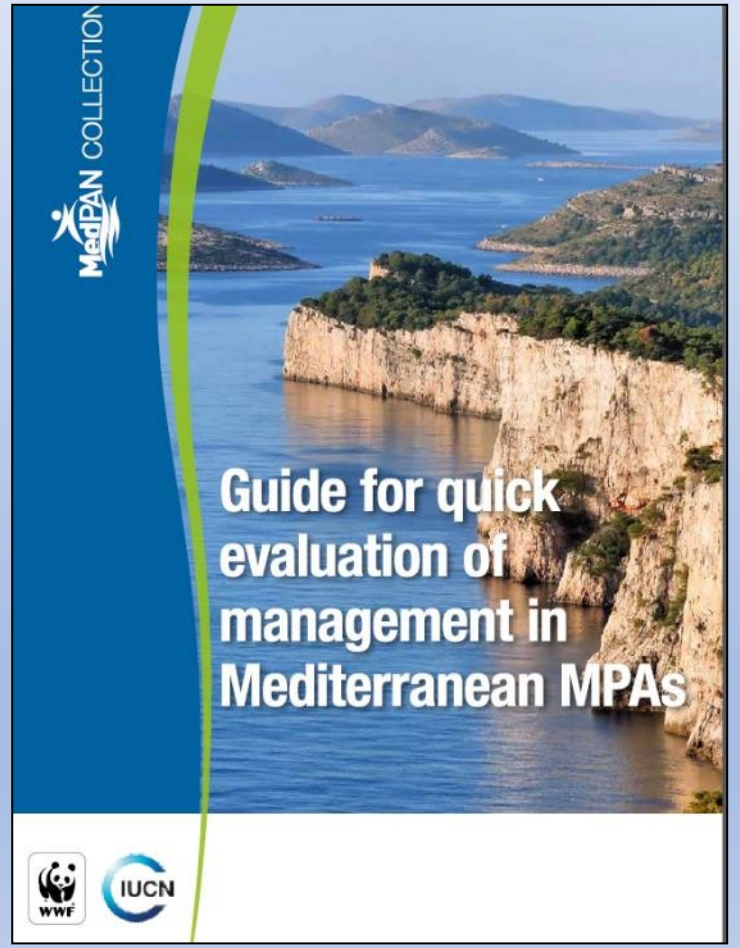


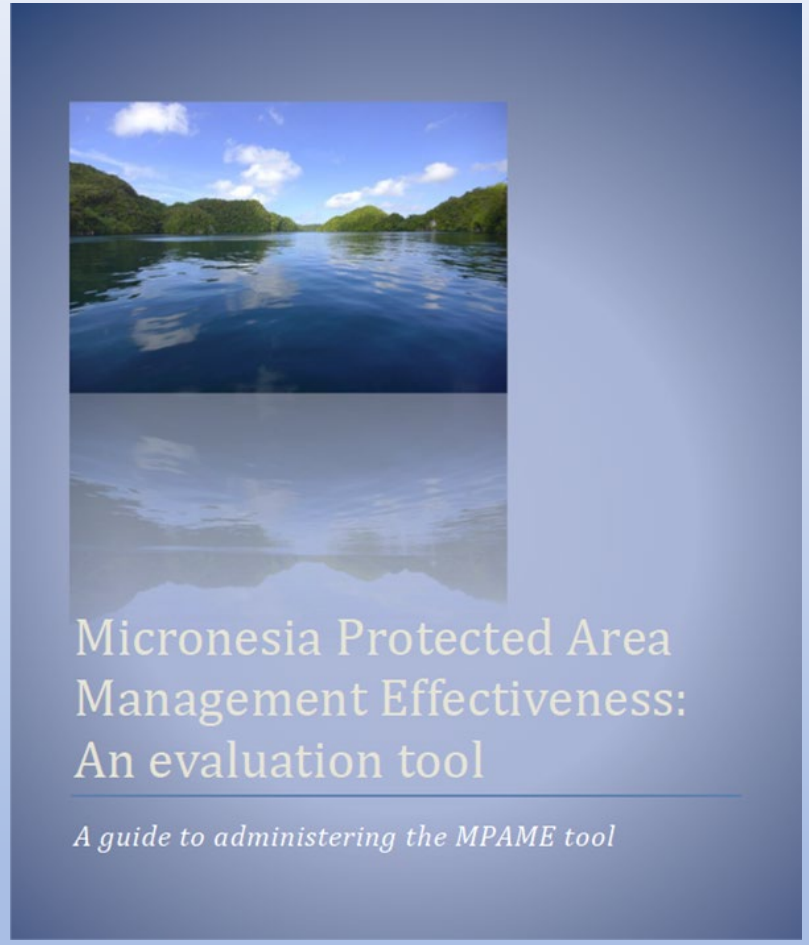




Regional assessment tools







EU tool to assess marine Natura 2000 sites and other EU MPAs

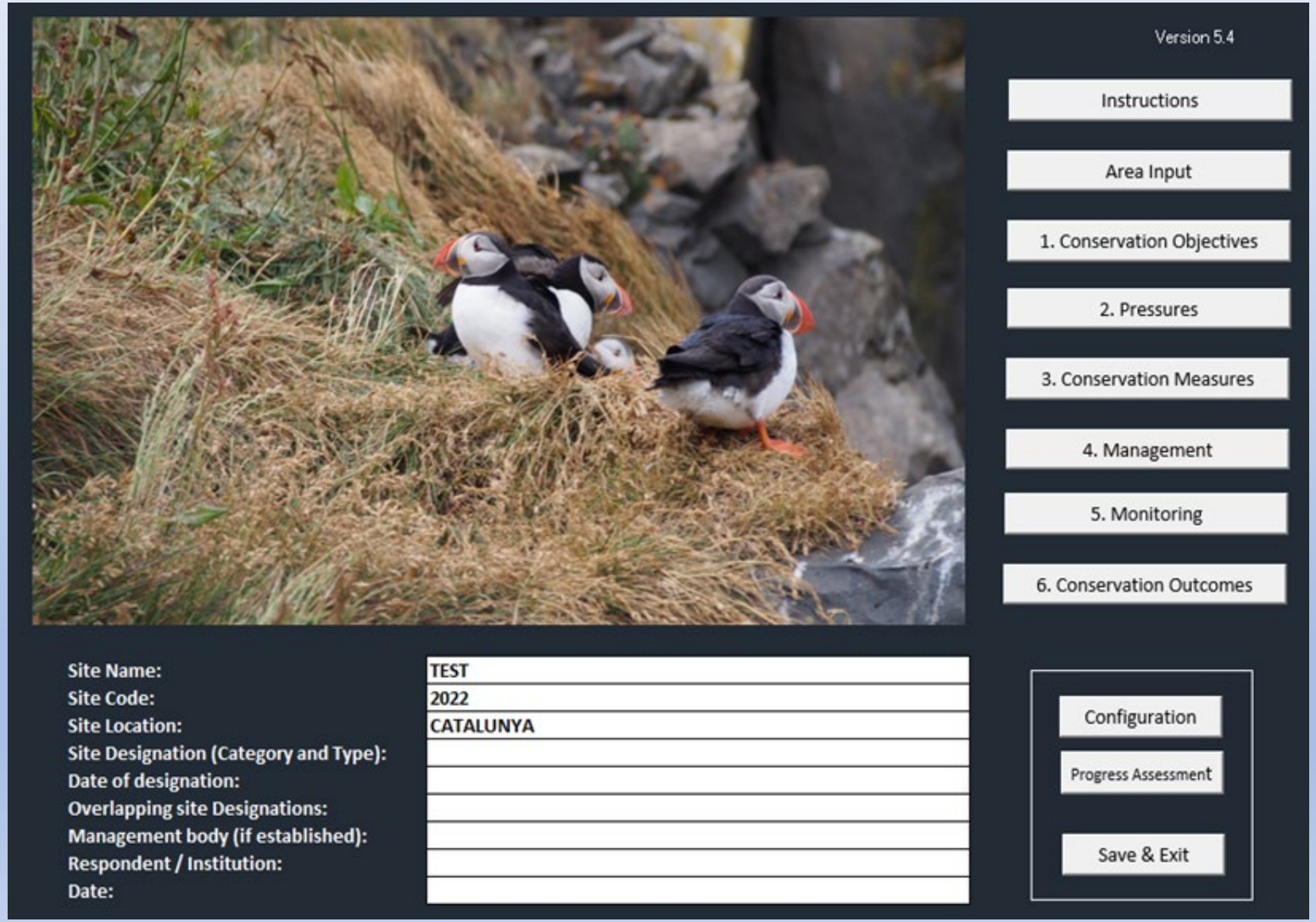
Self-assessment

6 sections (11 questions)

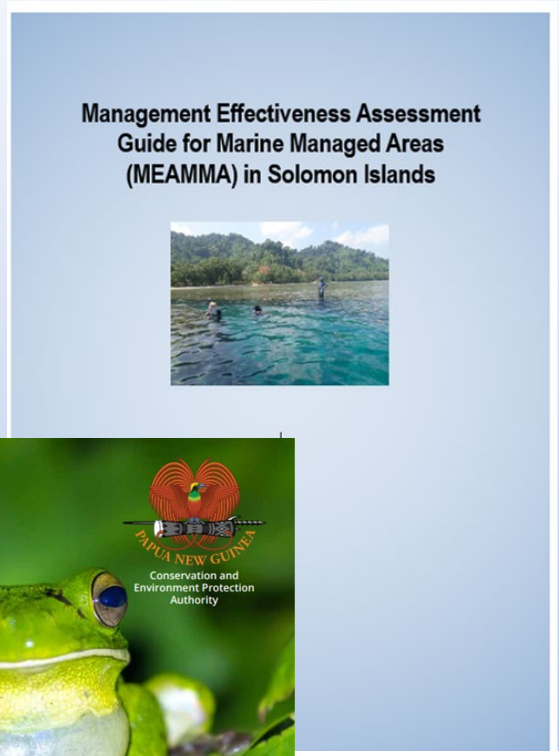
1. *Conservation objectives*
2. *Pressures*
3. *Conservation measures*
4. *Management*
5. *Monitoring*
6. *Conservation outcomes*

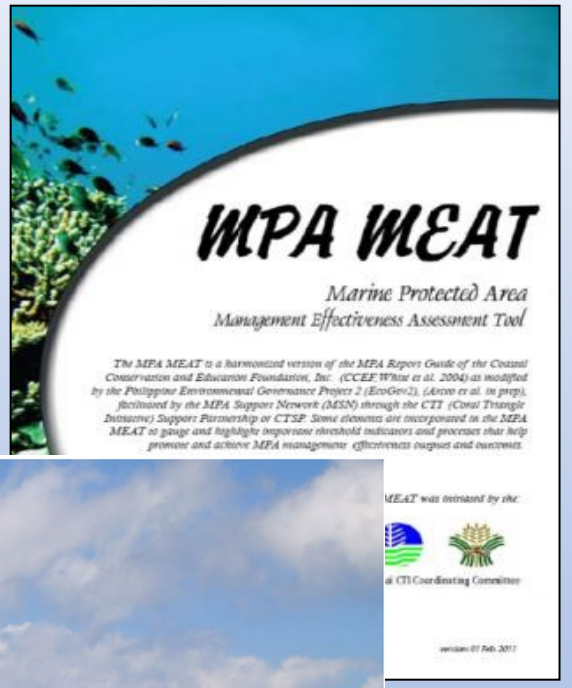
Scoring system

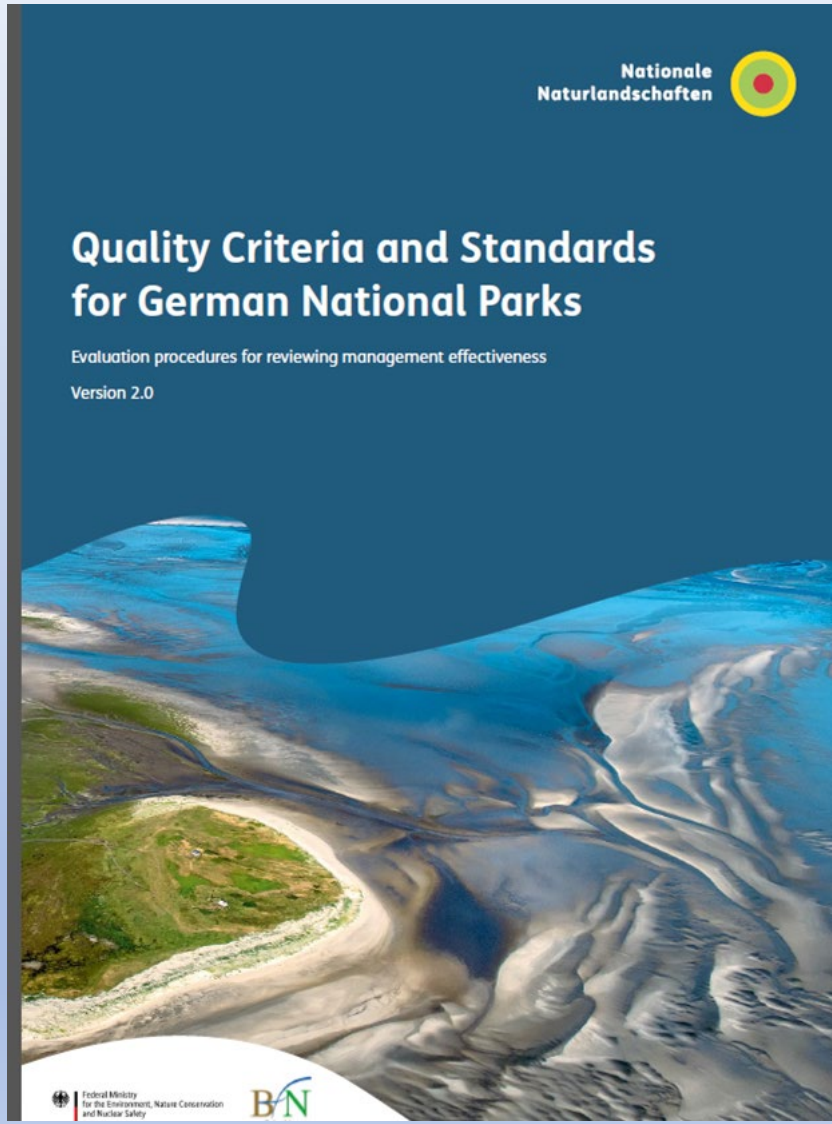
Guidance notes, video tutorial

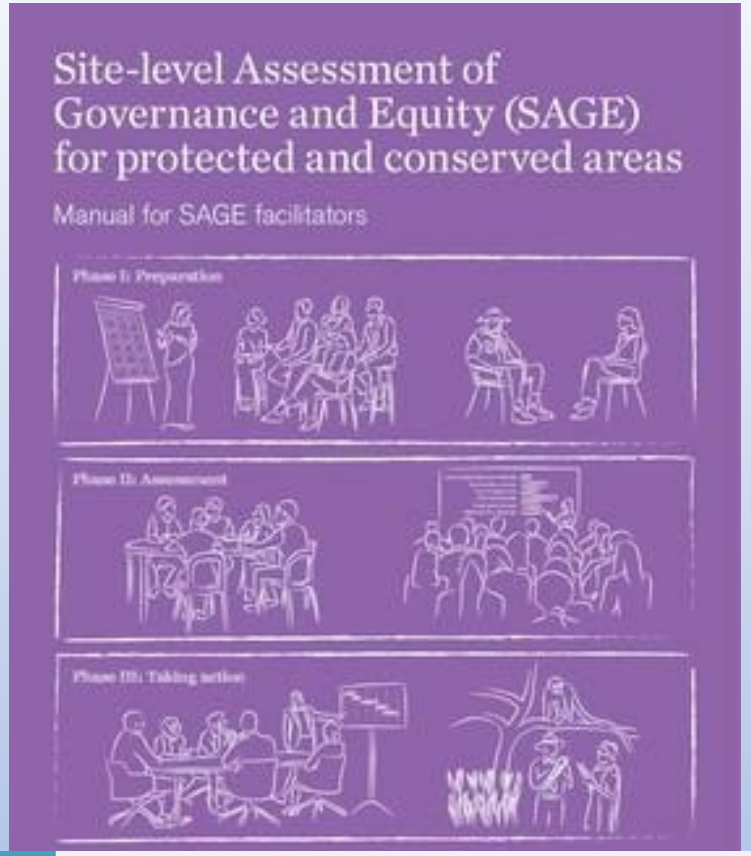


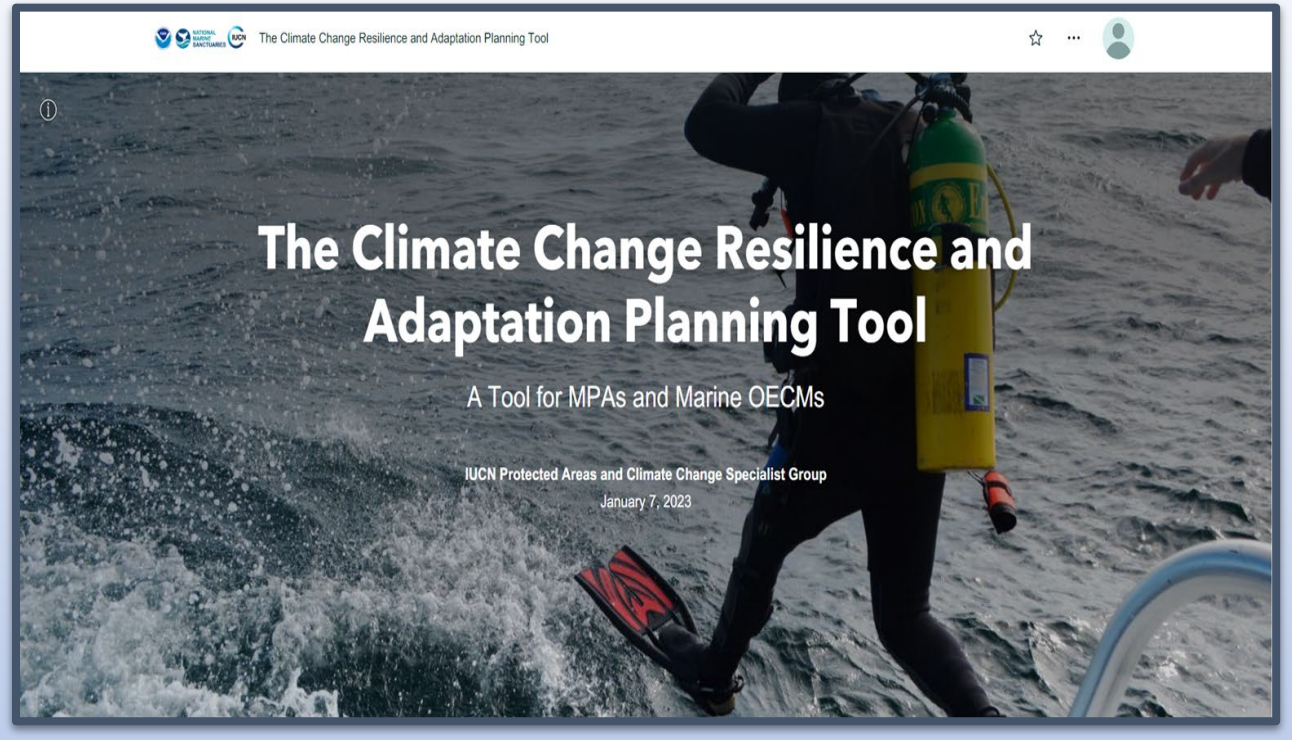
National tools

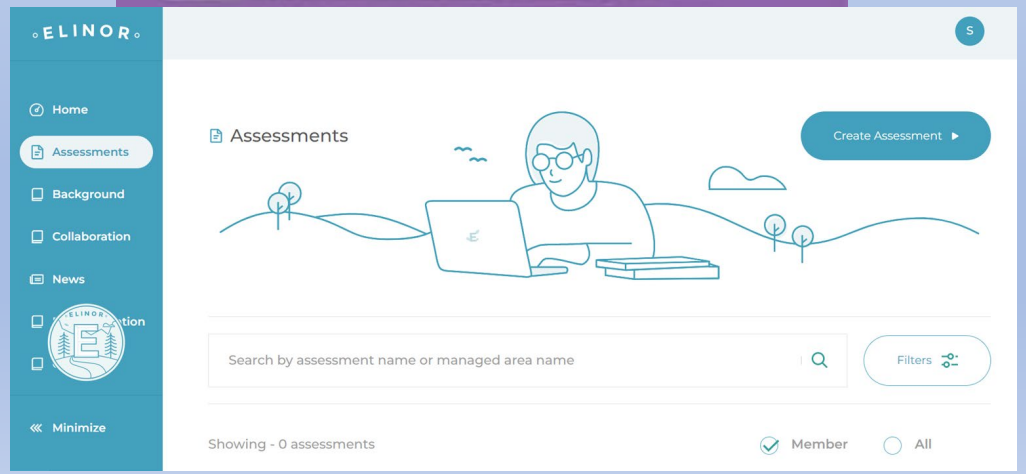


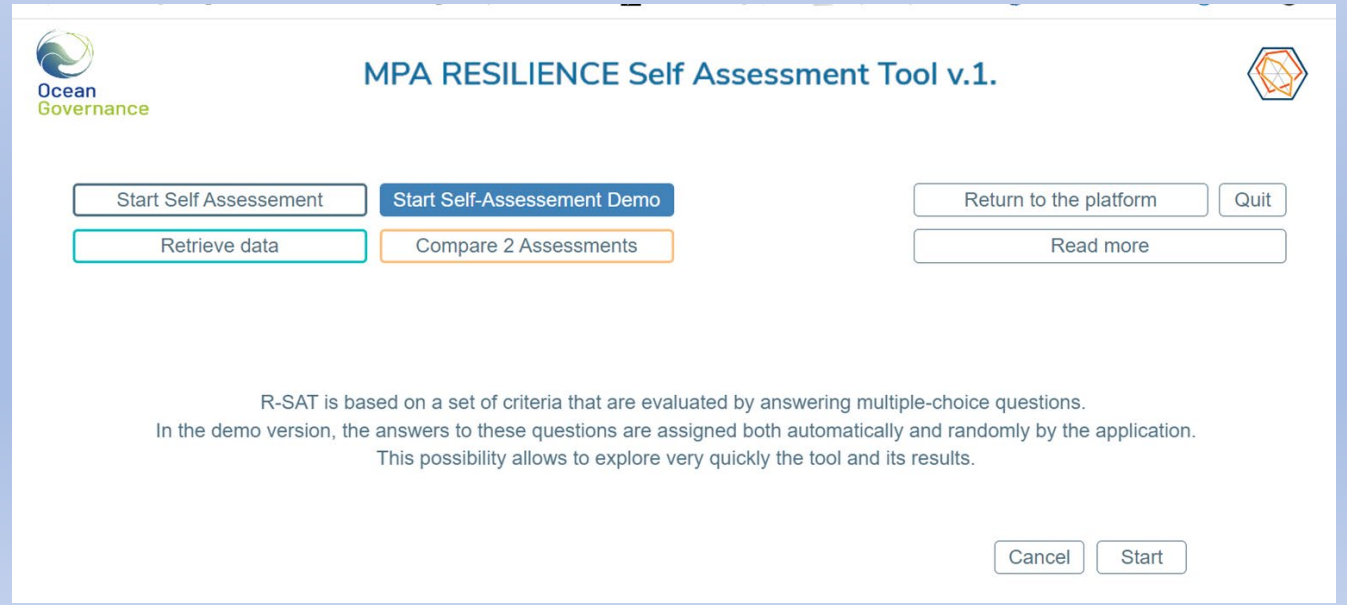




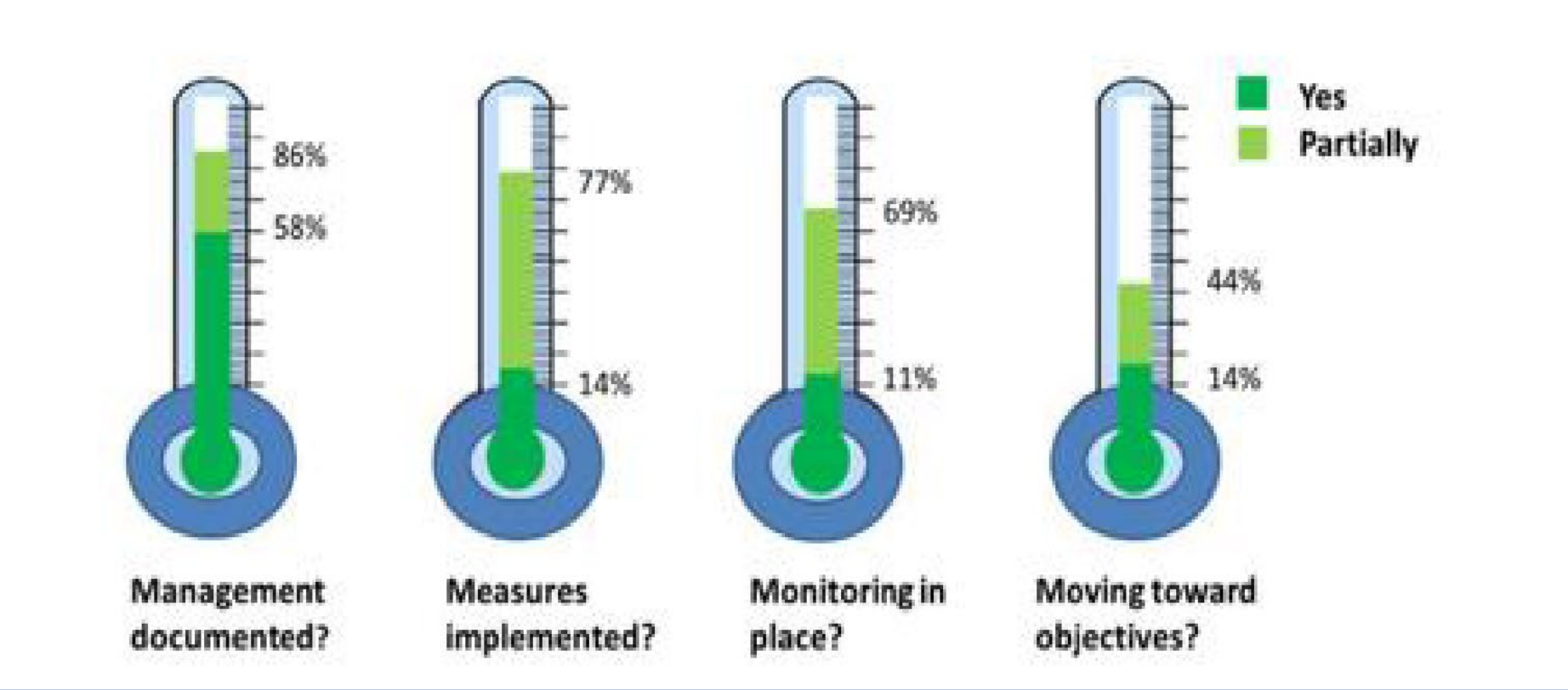

Site-level Assessment of Governance and Equity (SAGE) for protected and conserved areas
Manual for SAGE facilitators


The Climate Change Resilience and Adaptation Planning Tool
The Climate Change Resilience and Adaptation Planning Tool
A Tool for MPAs and Marine OECMs
IUCN Protected Areas and Climate Change Specialist Group
January 7, 2023

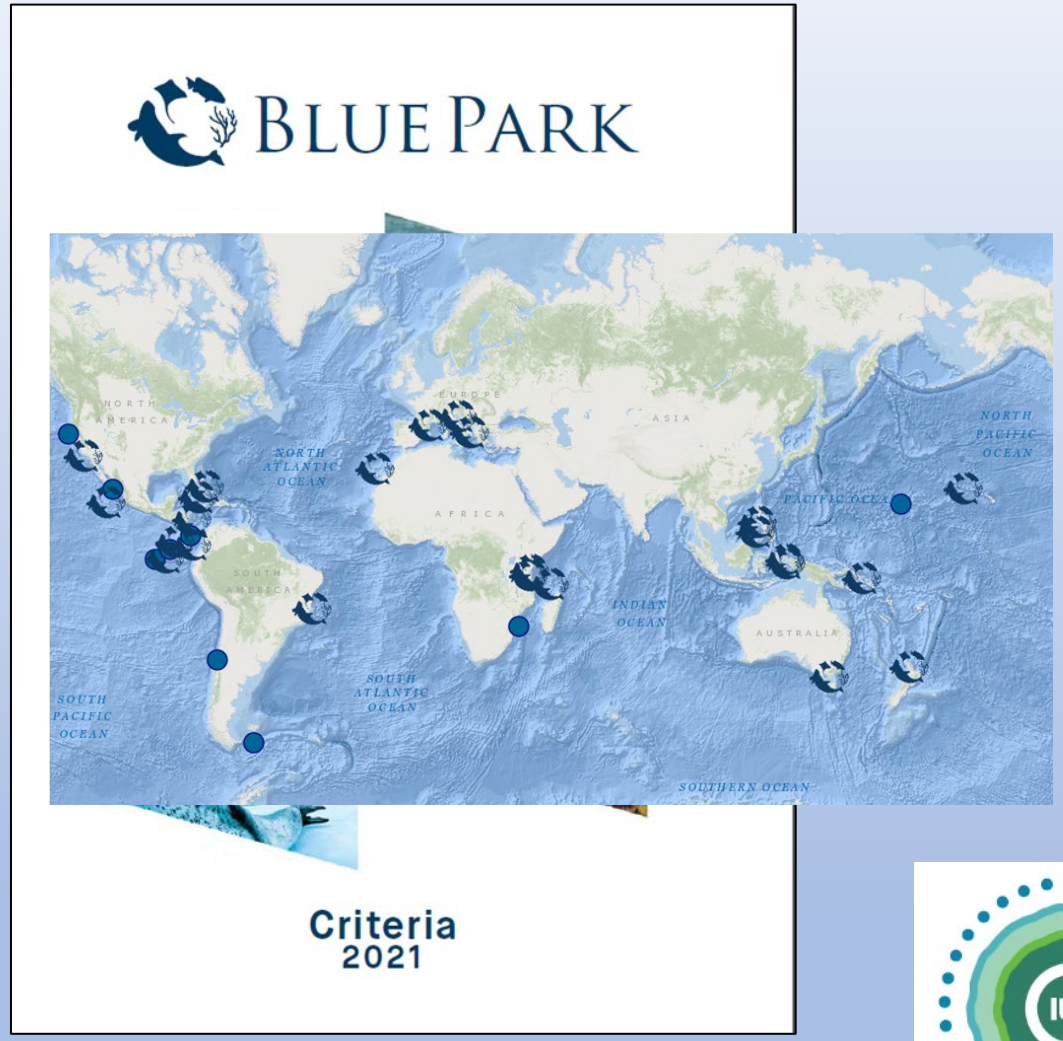

ELINOR
Home
Assessments
Background
Collaboration
News
Minimize
Assessments
Create Assessment
Search by assessment name or managed area name
Filters
Showing - 0 assessments
Member
All

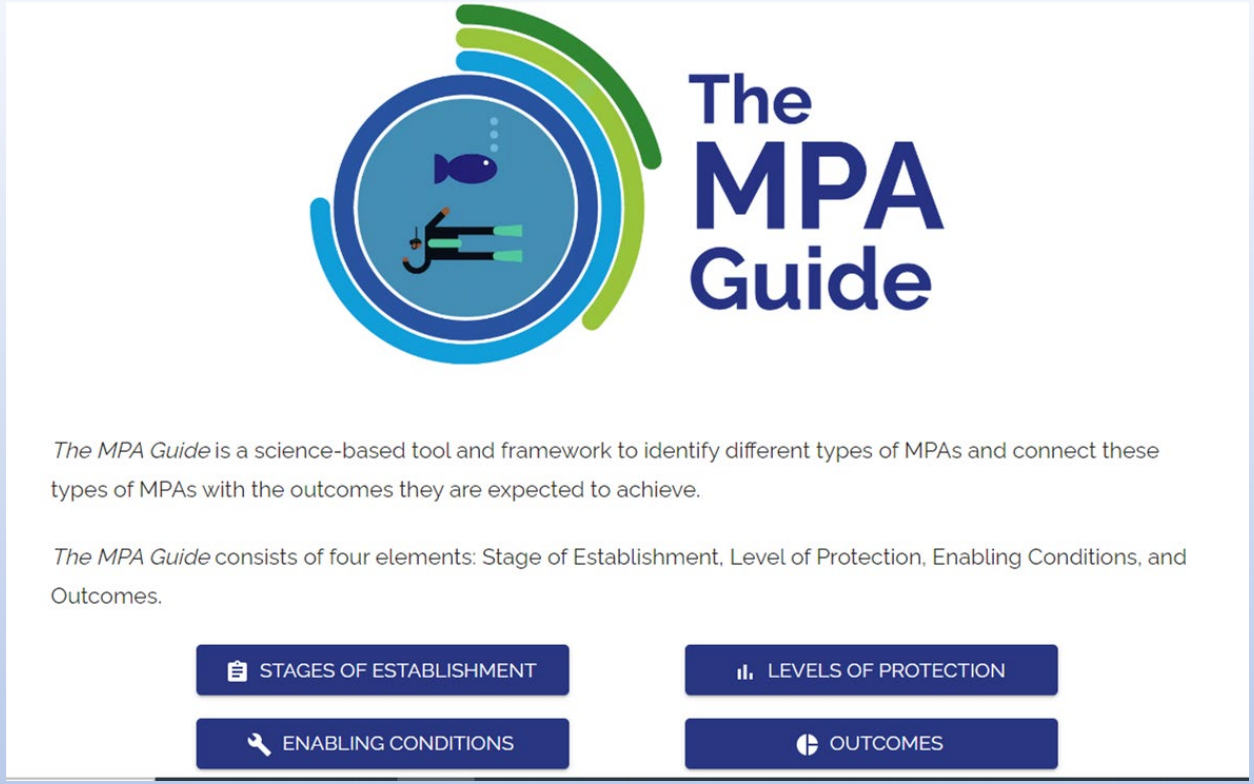

Ocean Governance
MPA RESILIENCE Self Assessment Tool v.1.
Start Self Assessement
Start Self-Assessement Demo
Return to the platform
Quit
Retrieve data
Compare 2 Assessments
Read more
R-SAT is based on a set of criteria that are evaluated by answering multiple-choice questions.
In the demo version, the answers to these questions are assigned both automatically and randomly by the application.
This possibility allows to explore very quickly the tool and its results.
Cancel
Start

OSPAR MPA Management Barometer



Blue Parks Award Scheme





Regulation-based classification predicting conservation outcomes

IUCN Green List Certification Programme – 16 MPAs listed

IUCN Green List
Protected | Conserved Areas

How do the different tools relate?
Green List Standard and PAME tools alignment

MEAT
Marine Protected Area Effectiveness Assessment Tool

WHO
World Heritage Outlook

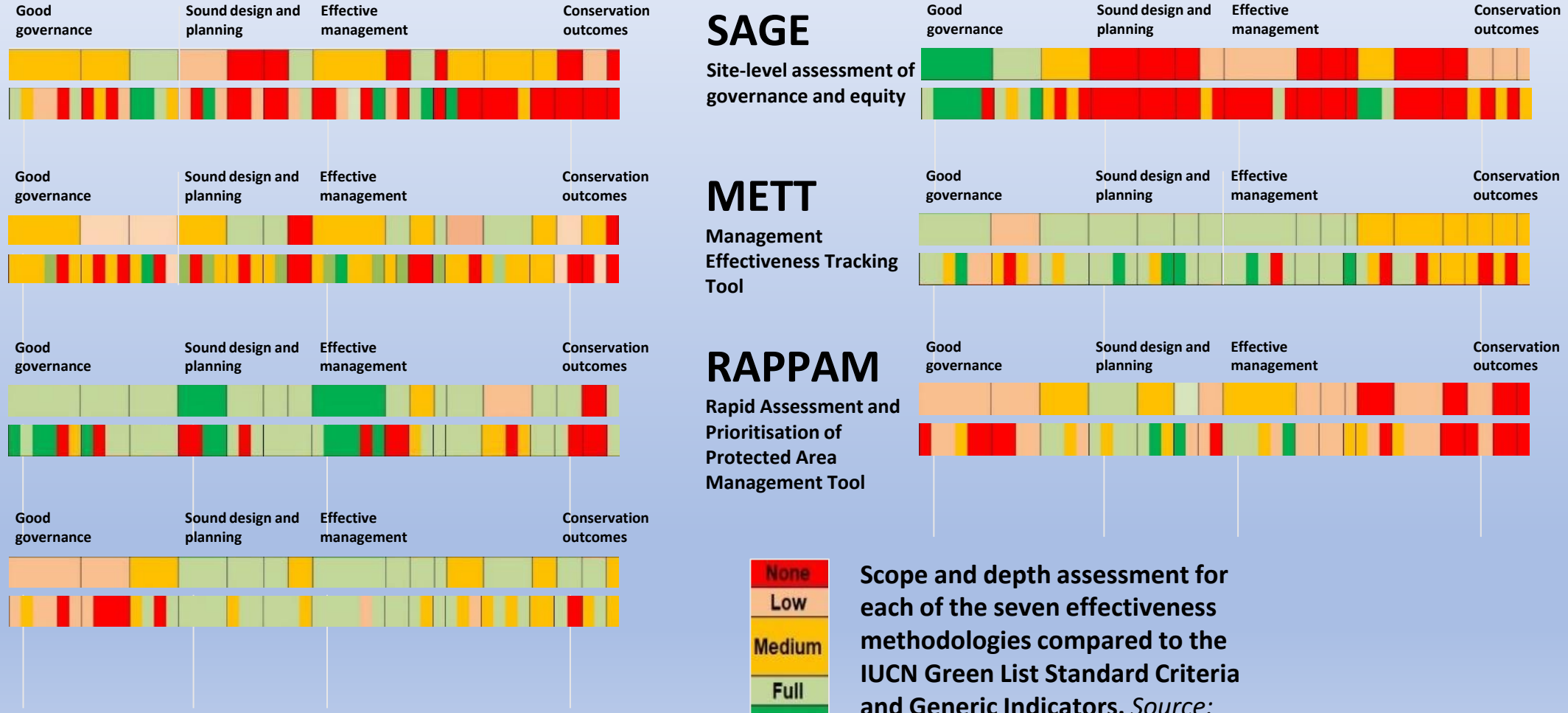
EOH 2
Enhancing Our Heritage Toolkit

IMET
Integrated Management Effectiveness Tool

SAGE
Site-level assessment of governance and equity

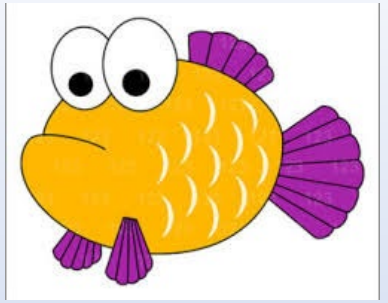
METT
Management Effectiveness Tracking Tool

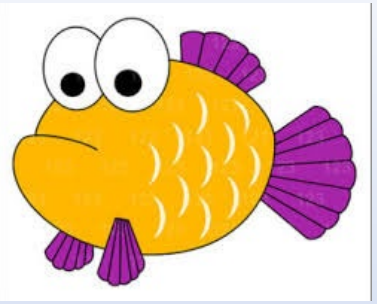
RAPPAM
Rapid Assessment and Prioritisation of Protected Area Management Tool



Scope and depth assessment for each of the seven effectiveness methodologies compared to the IUCN Green List Standard Criteria and Generic Indicators. *Source: WCMC*

Marine challenges?





- **Fishing/extraction**:
  - 'effective management' often equated with 'full protection/no extraction'
  - lack of clarity on types of fishing that damage MPAs
- **Climate change –** adaptation and mitigation
- **Pollution, eutrophication, invasive species –** mitigation often difficult – more guidance needed?
- **Connectivity** – network approach – more guidance?
- **Equitable governance** – local community tenure vs "open access" traditions - economic/livelihood role of marine resources (the last "wild harvest")

Compatibility of marine activities with MPAs

Activities	Ia	Ib	II	III	IV	V	VI
Research: non-extractive	Y*	Y	Y	Y	Y	Y	Y
Non-extractive traditional use	Y*	Y	Y	Y	Y	Y	Y
Restoration/enhancement for conservation (e.g. invasive species control, coral reintroduction)	Y	Y	Y	Y	Y	Y	Y
Traditional fishing/collection in accordance with cultural tradition and use	N	Y*	Y	Y	Y	Y	Y
Non-extractive recreation (e.g. diving)	N	Y	Y	Y	Y	Y	Y
Large scale high intensity tourism	N	N	Y	Y	Y	Y	Y
Shipping (except as may be unavoidable under international maritime law)	N	N	N*	N*	Y	Y	Y
Research: extractive	N*	N*	N*	N*	Y	Y	Y
Renewable energy generation	N	N	N	N	Y	Y	Y
Restoration/enhancement for other reasons (e.g. beach replenishment, fish aggregation, artificial reefs)	N	N	N*	N*	Y	Y	Y
Fishing/collection: recreational (sustainable)	N	N	N	N	*	Y	Y
Fishing/collection: local fishing (sustainable)	N	N	N	N	*	Y	Y
Industrial fishing, industrial-scale aquaculture	N	N	N	N	N	N	N
Aquaculture – small-scale	N	N	N	N	*	Y	Y
Works (e.g. harbours, ports, dredging)	N	N	N	N	*	Y	Y
Untreated waste discharge	N	N	N	N	N	N*	N*
Mining, oil and gas extraction (seafloor as well as sub-seafloor)	N	N	N	N	N	N	N
Habitation	N	N	N	N	N	Y	N

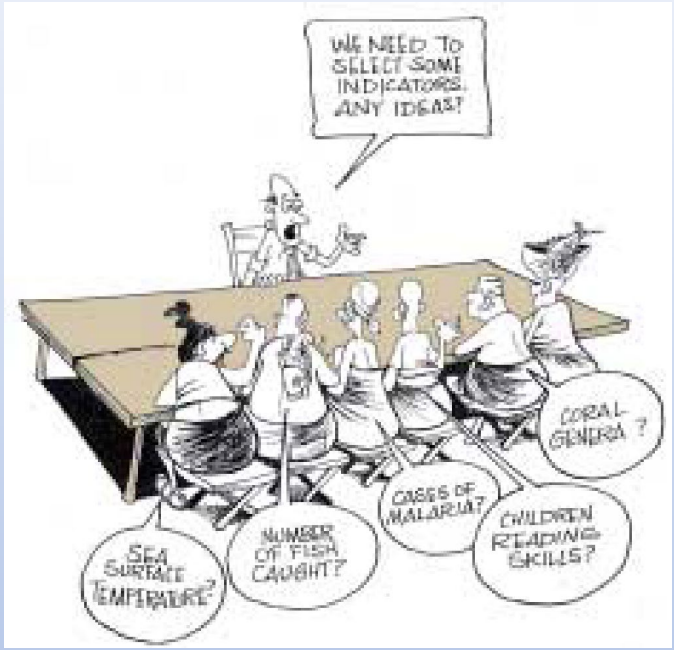
Compatibility of fishing with MPAs

IUCN category	Local fishing/ collecting	Recreational fishing/ collecting	Traditional fishing/ collecting	Industrial-scale fishing	Collection for research
Ia	No	No	No	No	No*
Ib	No	No	Yes**	No	Yes
II	No	No	Yes**	No	Yes
III	No	No	Yes**	No	Yes
IV	Variable#	Variable#	Yes	No	Yes
V	Yes#	Yes	Yes	No	Yes
VI	Yes#	Yes	Yes	No	Yes

WCC-2020-Res-055-EN (Guidance to identify industrial fishing incompatible with protected areas)
Industrial fishing (identified by variables e.g. capacity and size of vessels; method and volume of fish extraction):

- Motorised vessels >12 m long x 6 m wide
- Capacity of >50 kgcatch/voyage
- Requiring substantial sums for their construction, maintenance, and operation and mostly sold commercially
- All fishing using trawling gears that are dragged or towed across the seafloor orthrough the water column, and fishing using purse seines and large longlines

Indicators


WE NEED TO SELECT SOME INDICATORS. ANY IDEAS?
SEA SURFACE TEMPERATURE?
NUMBER OF FISH CAUGHT?
CASES OF MALARIA?
CHILDREN READING SKILLS?
CORAL GENERA ?

Examples of generic indicators

Good governance

- Governance structure clearly defined
- Stakeholders involved in decision-making

Sound design and planning

- Large enough and sufficiently connected to other habitats or ecosystems
- Part of a network meeting representation, replication, connectivity and resilience goals

Effective management

- Current management plan or functional equivalent
- Management activities and policies can be demonstrated

Successful conservation outcomes

- Site meets or exceeds the performance thresholds for the conservation of major natural values, ecosystem services, cultural values

Success does not mean perfection

Kufanya kosa siyo kosa. Kosa ni kurudia kosa.

To make a mistake is not a mistake. The mistake is to repeat the mistake.

Swahili proverb, Kenya

Le mieux est l'ennemi du bien.

The perfect is the enemy of the good

Voltaire