Introduction to Protected Areas Management Effectiveness Evaluation

Fiona Leverington
Samoa June 2018

What we'll cover

Much of the PAME work thanks to IUCN WCPA, other support including UQ, WWF, TNC, BIP

- What is management effectiveness evaluation ?
- *Ah but what is effective management and good governance?*
- What can we gain by evaluating management?
- What does 'good' PAME look like?
- A couple of methods

What is management effectiveness evaluation?

'..**the assessment of how well a protected area is being managed** – primarily the extent to which it is protecting values and achieving goals and objectives' WCPA Guidelines (2006)

It includes assessment of

- design of the protected area
- the *adequacy* and *appropriateness* of management systems and processes
- the delivery of protected area objectives including conservation of values

Back a step: what is effective management?

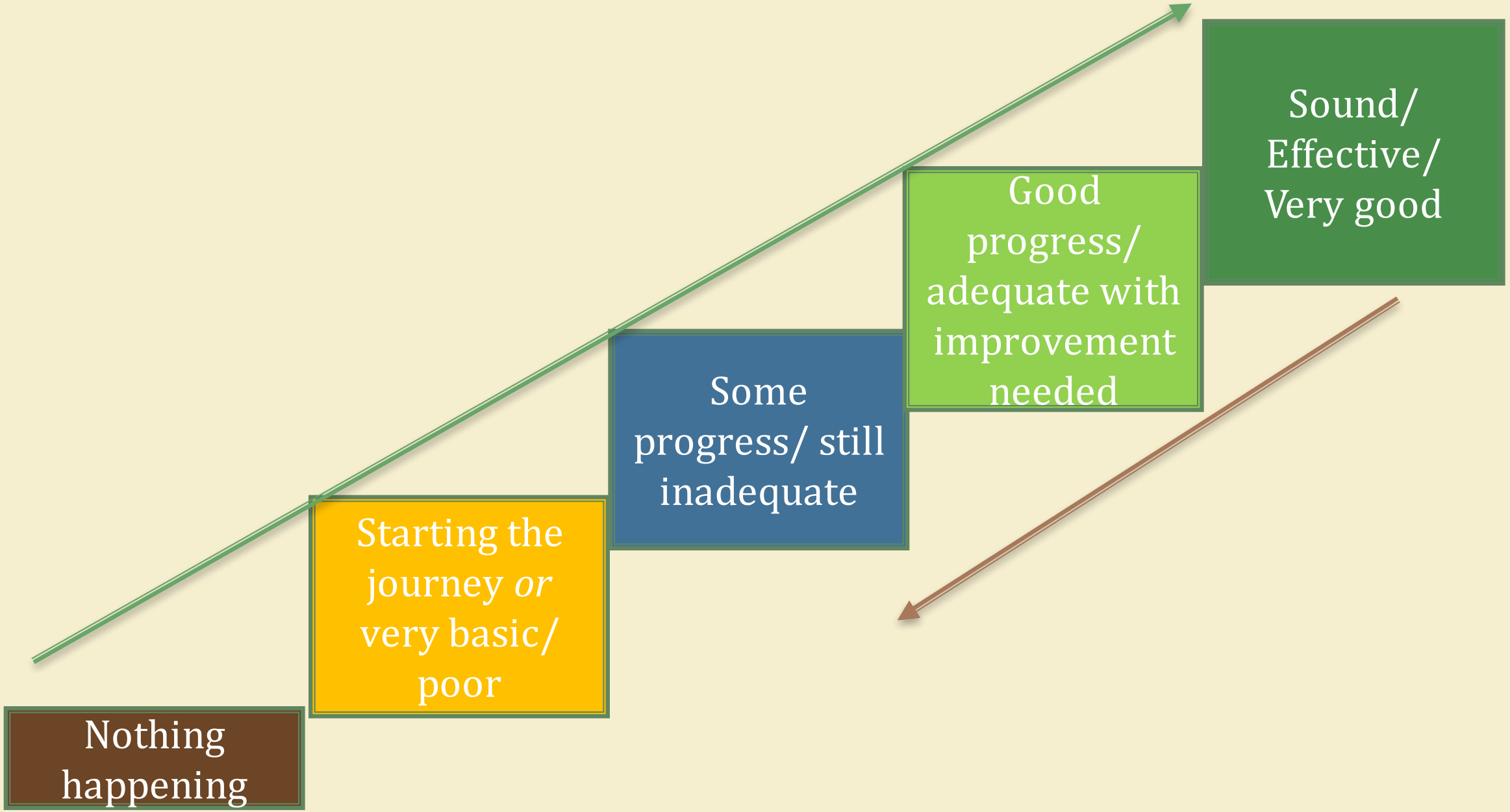
Protected areas on a journey from establishment - 'paper parks' - to basic to excellent management

What are the standards for a well-managed protected area in *your cultural context*?

What is an appropriate level for each protected area?

Where are your protected areas on the journey?

- Can consider both this at both protected area and system/network level – today focussing at the protected area level


Sound/ Effective/ Very good
Good progress/ adequate with improvement needed
Some progress/ still inadequate
Starting the journey *or* very basic/ poor
Nothing happening

What do you need to do on your PAs?

Activities fit into logical categories (topics or themes) and you can document standards for them

But remember *appropriate* standards – can use a 'levels of service' approach

- Eg natural resource management

Level 1 parks…(v. important) best practice

- Values are identified in detail with panel of experts
- Monitoring strategy drawn up
- Useful research actively encouraged through partnerships with uni, volunteer groups etc
- Some facilities for research and monitoring
- Annual report of activities and park natural integrity status produced/ effort to interpret findings
- Regular monitoring for threatening processes
- Attempt to undertake science-based adaptive management

Do it well but at a different level

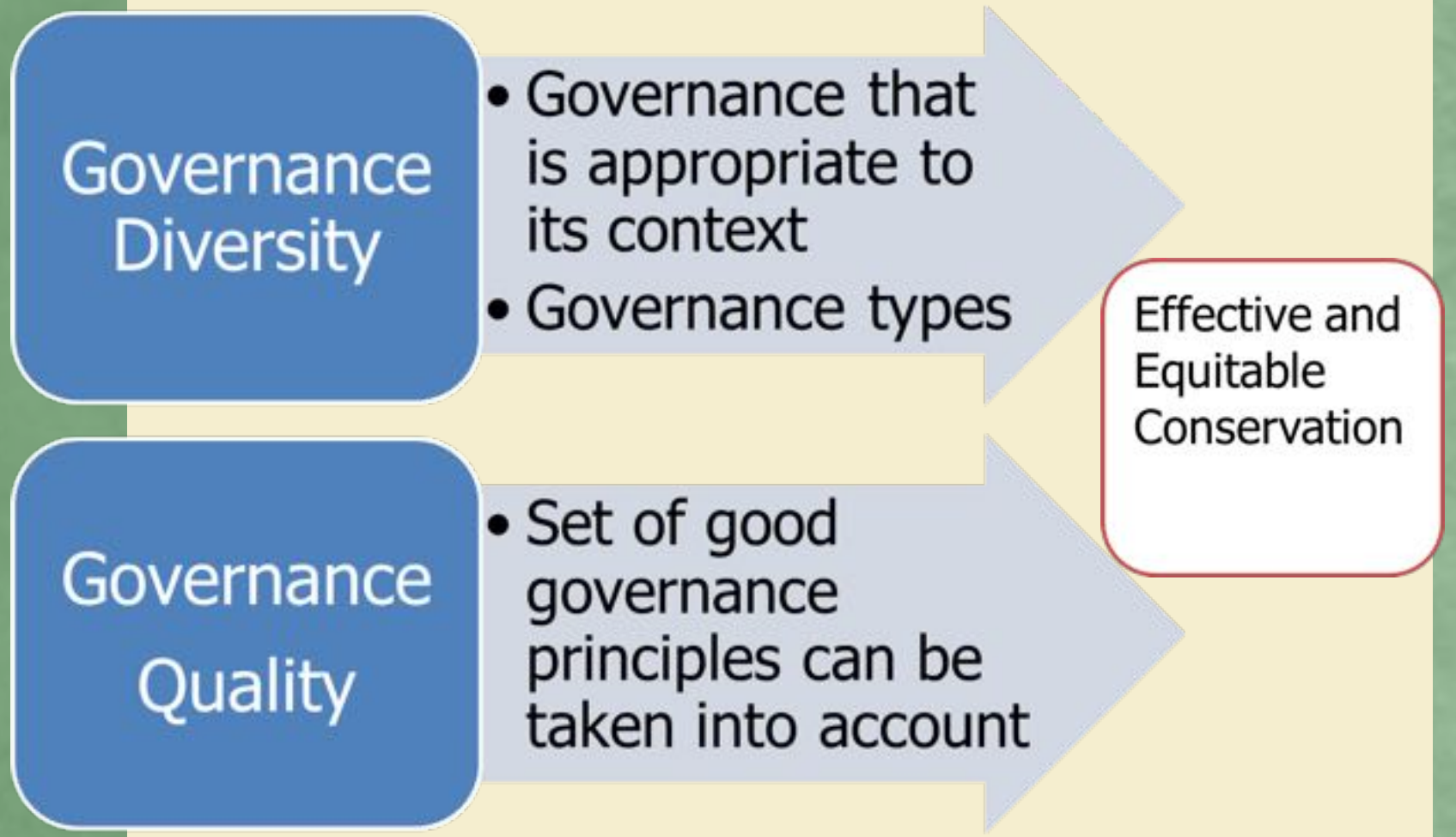
Level 4 parks (lower value, no active threats)

- Only brief values statement
- Only occasional monitoring
- Research allowed but not sought
- Maybe less stringent permit conditions for outside researchers

This is still okay for some PAs

Good (and appropriate) governance – is there a "Pacific version?"

See Worboys book for good summary
Slides: jennifer.kelleher@iucn.org



Governance diversity: 4 governance types

Type 1
- Governance by government
- At all levels to municipal, decentralisation of authority

Type 2
- Shared governance
- Transboundary, multi party governing bodies

Type 3
- Private governance
- Land owners, NGOs, religious groups, for-profit entities..

Type 4
- Indigenous peoples and community conserved areas (ICCAs)
- Devolving of authority to ICCAs

…all types of governance are legitimate and fully compatible with the definition of "protected area" of either CBD or the IUCN…

Governance quality of systems and sites

Principles of “good governance” drawing from the work of the UN

- Legitimacy and Voice
- Direction
- Performance
- Accountability
- Fairness and rights

At national and regional leve

The IUCN ‘Green List’ is one possible approach to setting standards

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 Planning & Design

- 2.1 Identify major site values
- 2.2 Design for long-term conservation
- 2.3 Understand threats and challenges
- 2.4 Understand social and economic context

Effective Management

- 3.1 Long-term management plan
- 3.2 Manage ecological conditions
- 3.3 Manage within social and economic context
- 3.4 Manage threats
- 3.5 Effectively enforce laws
- 3.6 Manage access and use
- 3.7 Measure success

Conservation Outcomes

- 4.1 Demonstrate conservation of major natural values
- 4.2 Demonstrate conservation of ecosystem services
- 4.3 Demonstrate conservation of major cultural values

IUCN GREEN LIST STANDARD: COMPONENTS AND CRITERIA HEADLINES

Why do we do PAME?
1. Evaluation can help us manage better

At local level

- by recording, observing and talking about the changes we see in the environment and looking for their causes
- by encouraging a culture where we look and reflect on our management
- by helping us to learn from our mistakes and our successes

2. Evaluation assists in effective resource allocation

- It identifies priorities for actions
- Helps to show real resource needs

One of the original purposes of PAME was to work out which protected areas are 'paper parks' that exist on maps or in legislation or registry, but not on the ground, and to see where extra help is needed

At national and regional level

3. Reporting:

Evaluation promotes accountability and transparency

- The community see how their protected areas are managed (and in some cases how their taxes or donations are spent)
- Requirement for many grant/ loan bodies including World Bank, GEF
- Baselines can be established for partnerships, agreements, trusteeships and contracts

Hopefully PAME tracks improvement over time – or shows when new problems are emerging (example from Eastern Cape Province, South Africa

Year	No PAs Assessed	Area (ha) Assessed	No of PAs Score > 67% (sound)
2008	93	789,923	5
2011	97	817,907	36
2012	100	822,535	54
2013	111	839,120	92

And shows if we are meeting national or international targets

Aichi Target 11

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through **effectively and equitably managed**, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascape

The CBD PoWPA Commitment

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.

Suggested activities included:

30% (increased to 60%) of each country's PA should be assessed

Include information resulting from evaluation of protected areas management effectiveness in national reports

Implement key recommendations arising from site- and system-level management effectiveness evaluations, as an integral part of adaptive management strategies

4. Evaluation can help involve the community, build constituency and promote protected area values

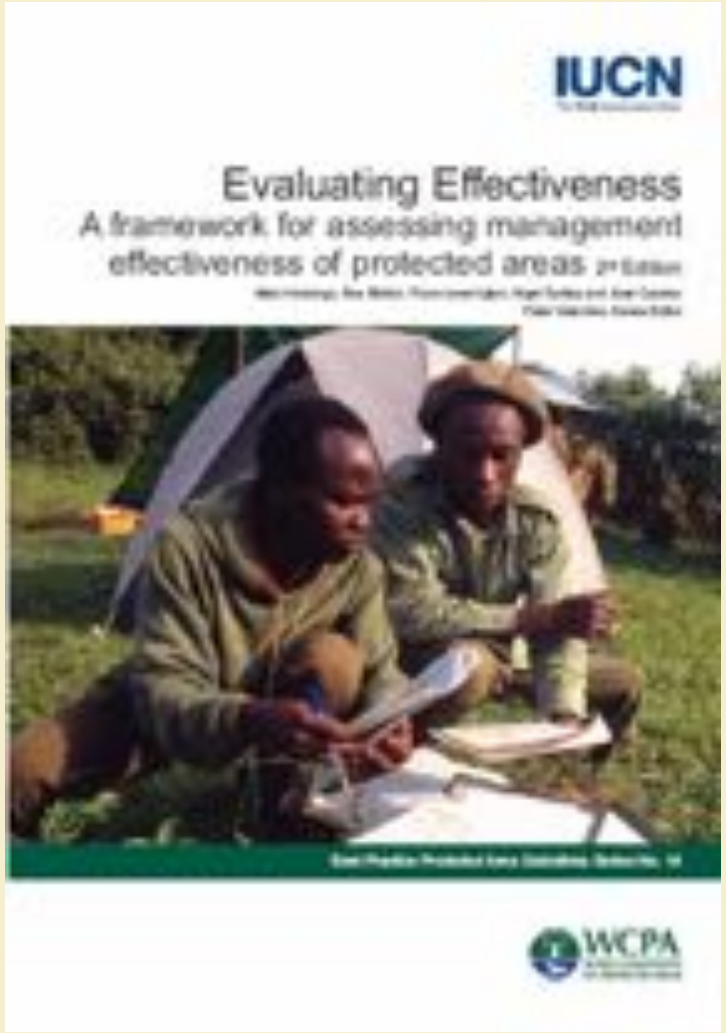
- Involving customary landowners, community members and scientists gives us more credibility and helps build good relationships
- Increasing public action to support parks: Showing the community the need for better resourcing of the parks system and alerting them to threats

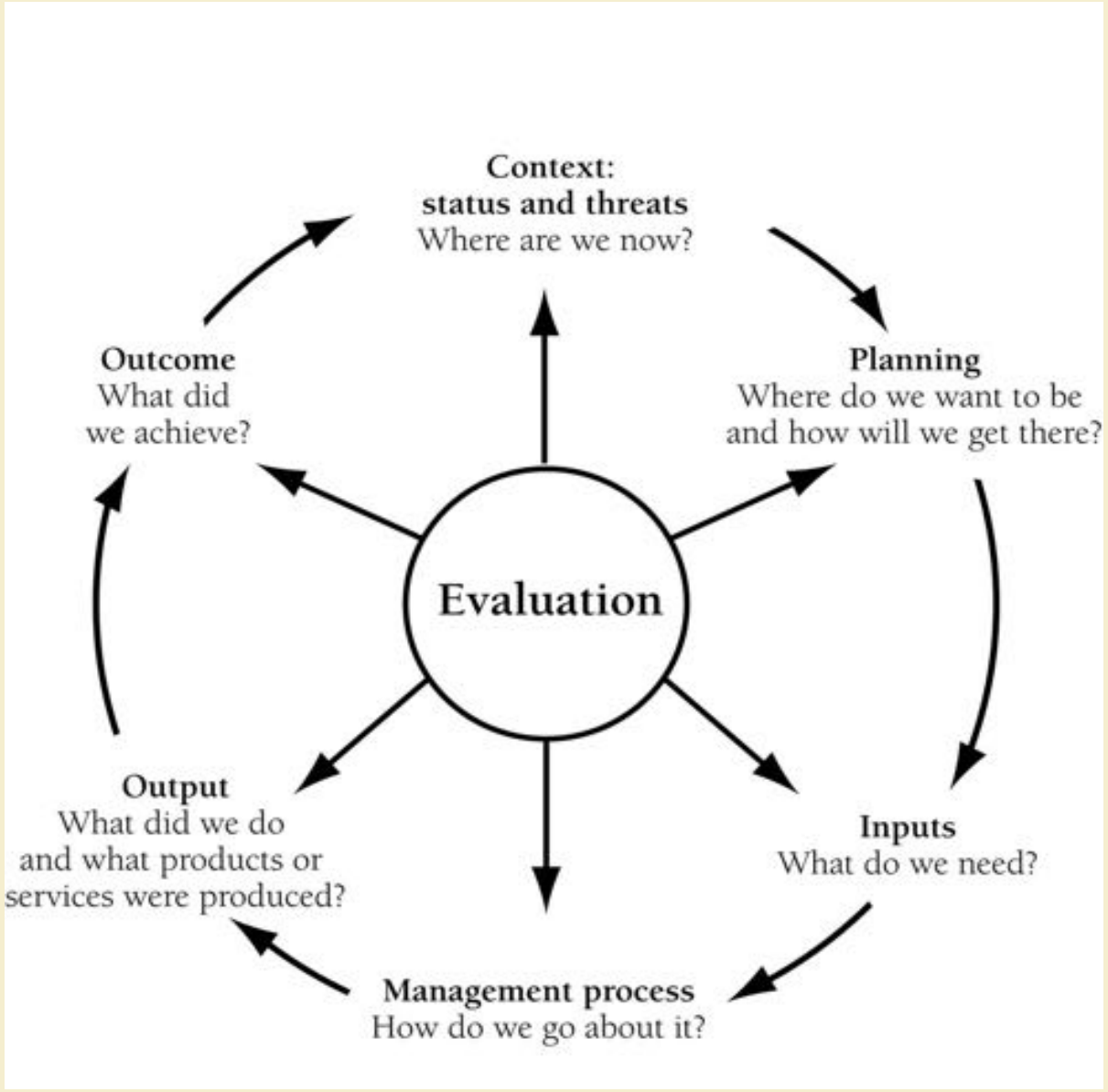
How to do it:

Diversity of needs and circumstances

- Different purposes for evaluation
- Different circumstances and issues
- Different scales in area and in time
- Different audiences
- Different capacities to do the evaluation

The WCPA Framework





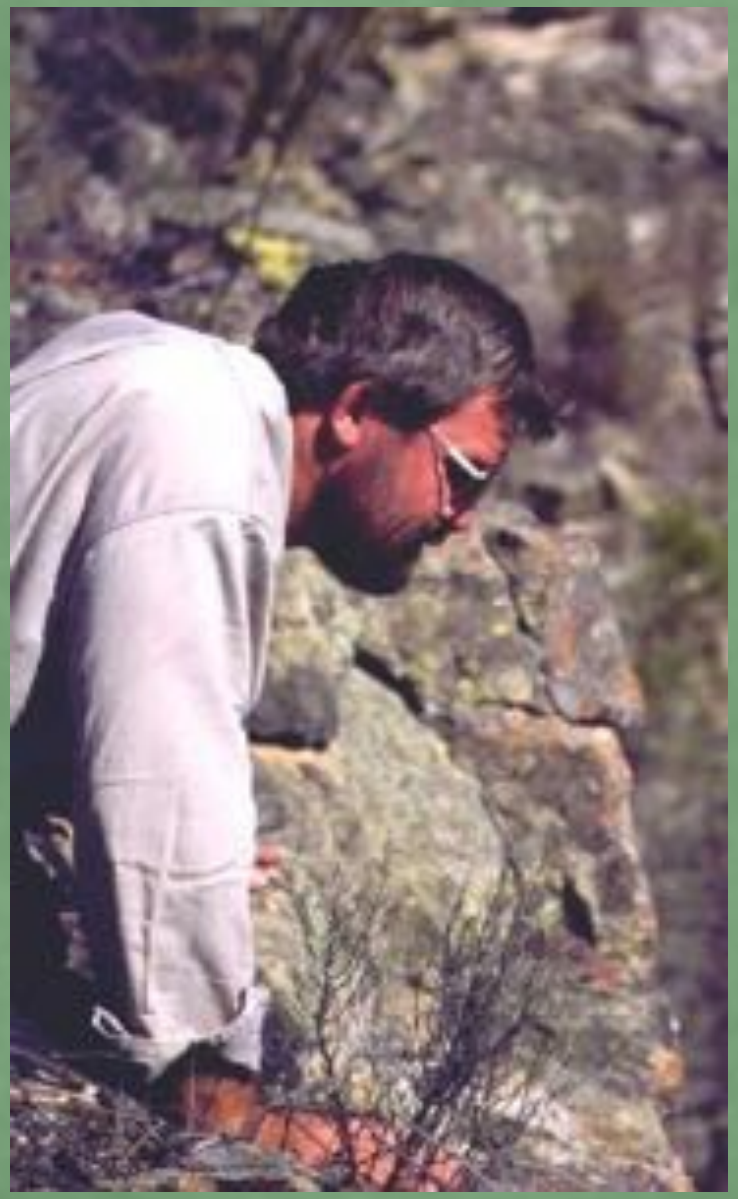
Elements of evaluation	**Context** *Where are we now?*	**Planning** *Where do we want to be?*	**Inputs** *What do we need?*	**Process** *How do we go about it?*	**Outputs** *What were the results?*	**Outcomes** *What did we achieve?*
Criteria	Significance Threats Vulnerability National policy Engagement of Partners	PA legislation and policy PA system design Reserve design Management planning	Resourcing of agency Resourcing of site	Suitability of management processes	Results of management actions Services and products	Impacts: effects of management in relation to objectives
Focus of evaluation	Status	Appropriate-ness	Economy	Efficiency	Effective-ness	Effectiveness Appropriate-ness

Key question: How will the evaluation help management?

Before choosing a methodology or undertaking an assessment, be clear about

- the purpose (adaptive management, setting priorities, reporting or advocacy – or all?
- The scope : which aspects of management and in what detail?
- The scale: all protected areas or a sample?
- The intended frequency

- Build on what we have
- Use or adapt one or more of the existing methodologies, such as those that are published and widely used.
- Add additional indicators and delete those which are not relevant to you…(but please keep some core indicators and numbering – it is useful for international tracking of progress).
- Don’t change too much from year to year.



Some principles for choosing a methodology and conducting and assessment

Good evaluation needs:

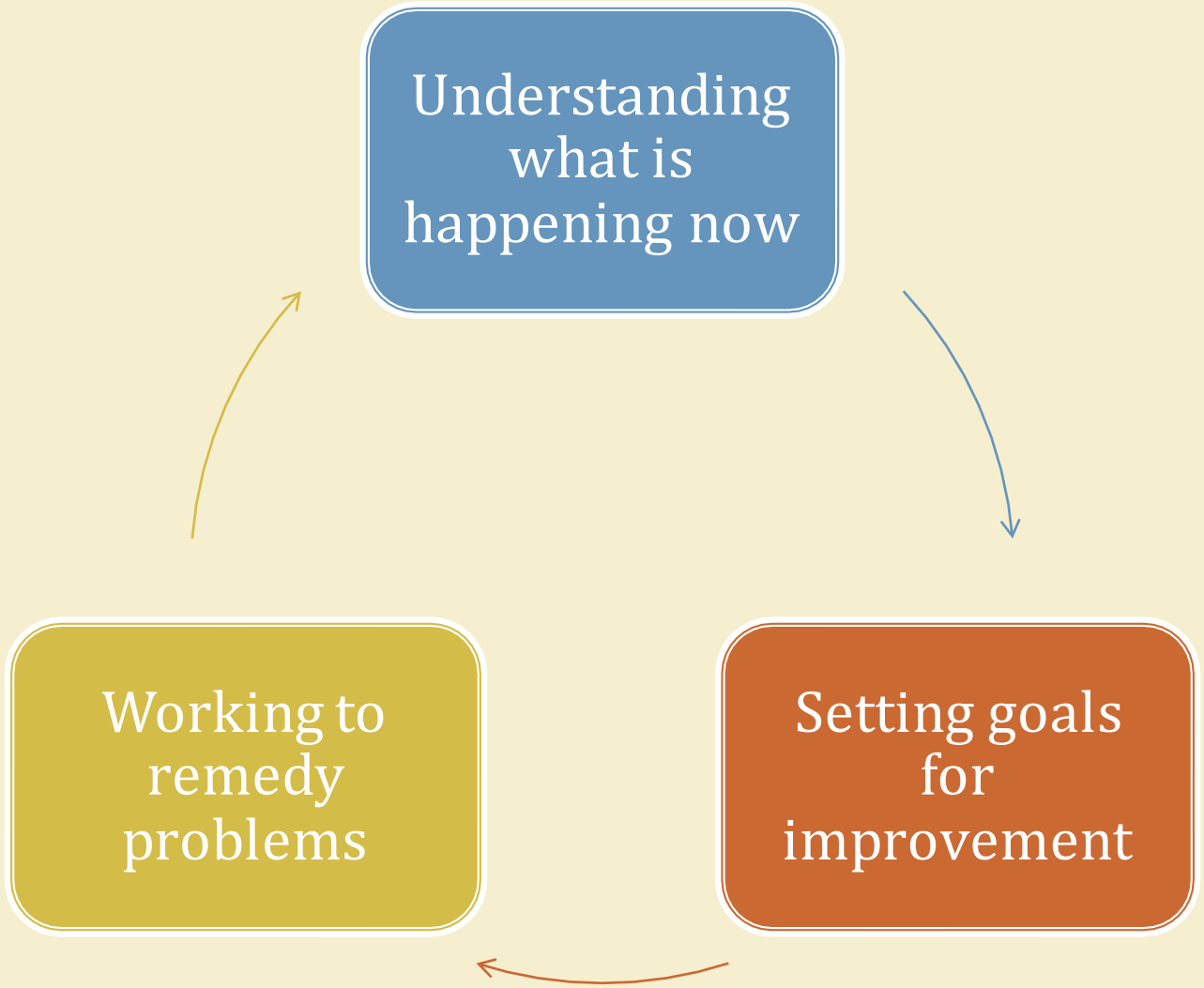
A good and reliable method AND

A good process – maybe even more important

FROM: Global study into management effectiveness of protected areas
IUCN-WCPA - The University of Queensland –
WWF International – The Nature Conservancy

Principle 1: Part of an effective management cycle: linked to defined values, objectives and policies.

- Evaluation should be part of the core business cycle and reporting requirements of the agency, closely linked with protected area planning, monitoring, research and annual work programs.
- Evaluations that are integrated into management culture and processes are more successful and effective in improving management performance in the long term



The basis of adaptive management and learning-by-doing

Principle 2: Practical to implement, giving a good balance between measuring, reporting and managing

- Evaluation is important but should not absorb too many of the resources needed for management.
- Methodologies which are too expensive and time-consuming will not be repeated, and are less acceptable to staff and stakeholders.
- Making the most of existing information (from pre-existing monitoring and research) is important.

Principle 3: Useful and relevant in improving protected area management

- Yielding explanations and showing patterns and improving communication, relationships and awareness

- All protected area management assessments should in some way improve protected area management

Principle 4: logical and systematic: working in a logical and accepted Framework with balanced approach

- A consistent and accepted evaluation system such as the IUCN-WCPA Framework - solid theoretical and practical basis for assessment and enhances the capacity to harmonise information across different assessments.
- It is preferable for a methodology to be published, or at least clearly documented and available, so the results are defendable.

Often ‘layered’ from general to specific

Principle 5: based on good indicators: holistic, balanced, and useful.

Indicators and scoring systems are designed to enable robust analysis.

Dimensions of management	Natural integrity				Cultural and spiritual				Socio-economic, community engagement and recreation					
Fields / Elements	biodiversity	geology ecosystem function	landscape and resilience	Climate change	Material culture	cultural (other)	spiritual	aesthetic/ scenic	recreation use	sustainable resource	economic educational use	science and	well-being community	human health and
Context														
Planning														
Inputs														
Process														
Outputs														
Outcomes														

Balance of nature, culture and social.

Indicators that are clear and can be repeated.

Language that can be understood.

Principle 6: The methodology is accurate: providing true, objective, consistent and up-to-date information

The indicators chosen have some explanatory power, or able to link with other indicators to explain causes and effects.

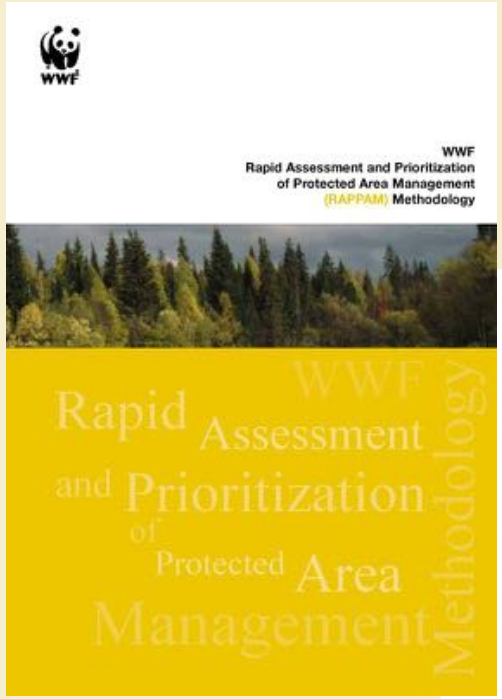
Principle 7: The evaluation process is cooperative and participatory

Good communication, teamwork and participation of protected area managers and stakeholders – critical in the Pacific

Principle 8: Communication of results is positive and timely and undertaken in a way that is useful to the participants..

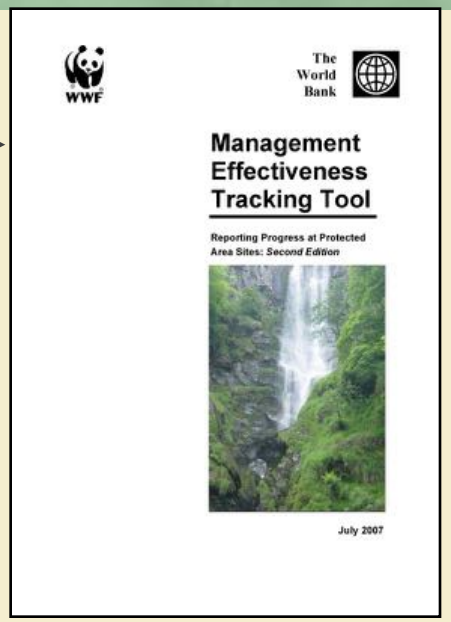
- Short-term benefits of evaluation should be demonstrated clearly wherever possible
- Evaluation findings, wherever possible, should be positive, identifying challenges rather than apportioning blame. If the evaluation is perceived to be likely to 'punish' participants or to reduce their resources, they are unlikely to be helpful to the process.

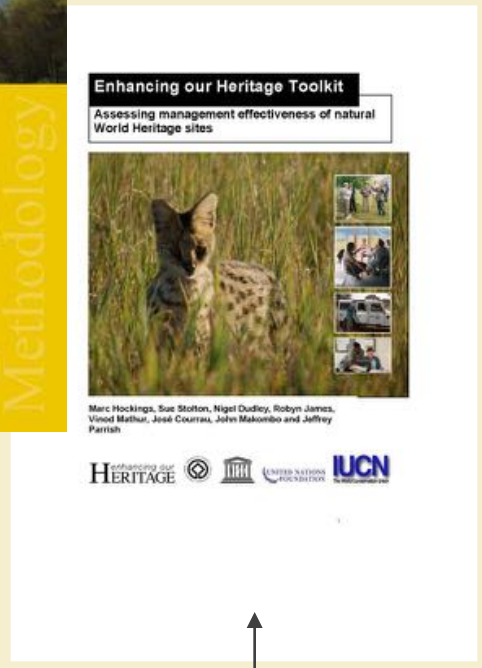
- Get the information to people on the ground at the right time, and in the right format so they can incorporate the findings into decision-making
- Provide data so people can query and USE information
- WORK WITH PA managers - don't just send them a report



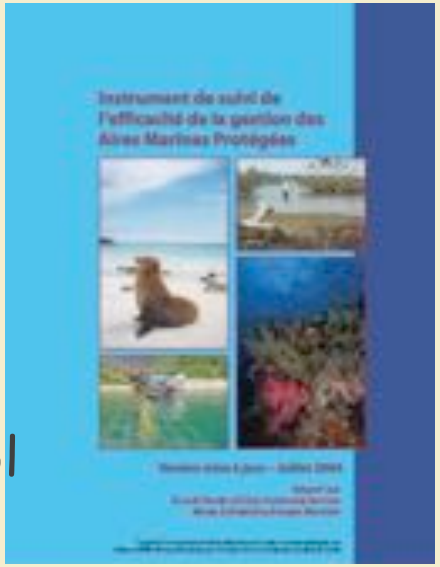
RAPPAM – PA and system, rapid

Tracking Tool – PA, rapid →

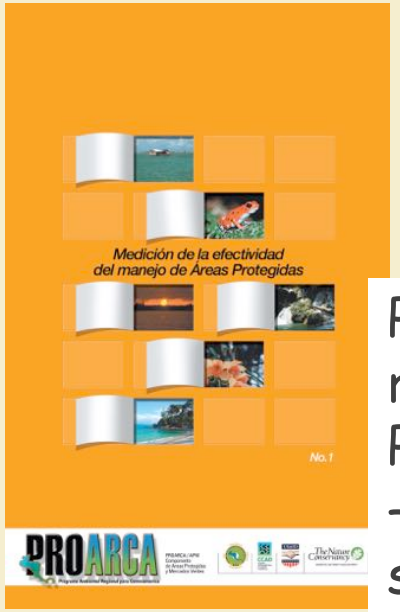




EOH, World Heritage Areas, detailed



Marine → Tracking Tool – PA, rapid



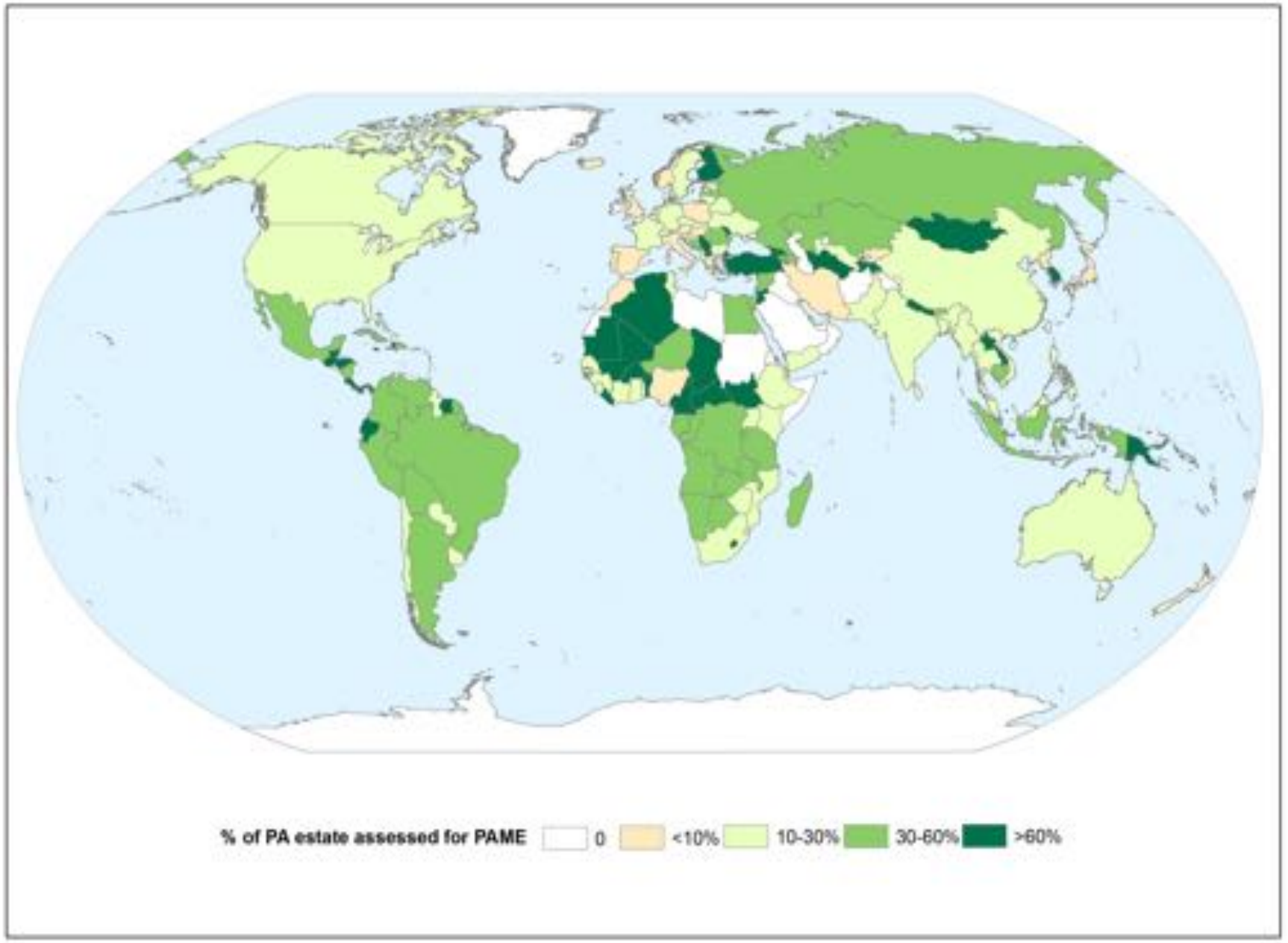
PROARCA and reef monitoring– PA, medium level – 'rolled-up' for systems

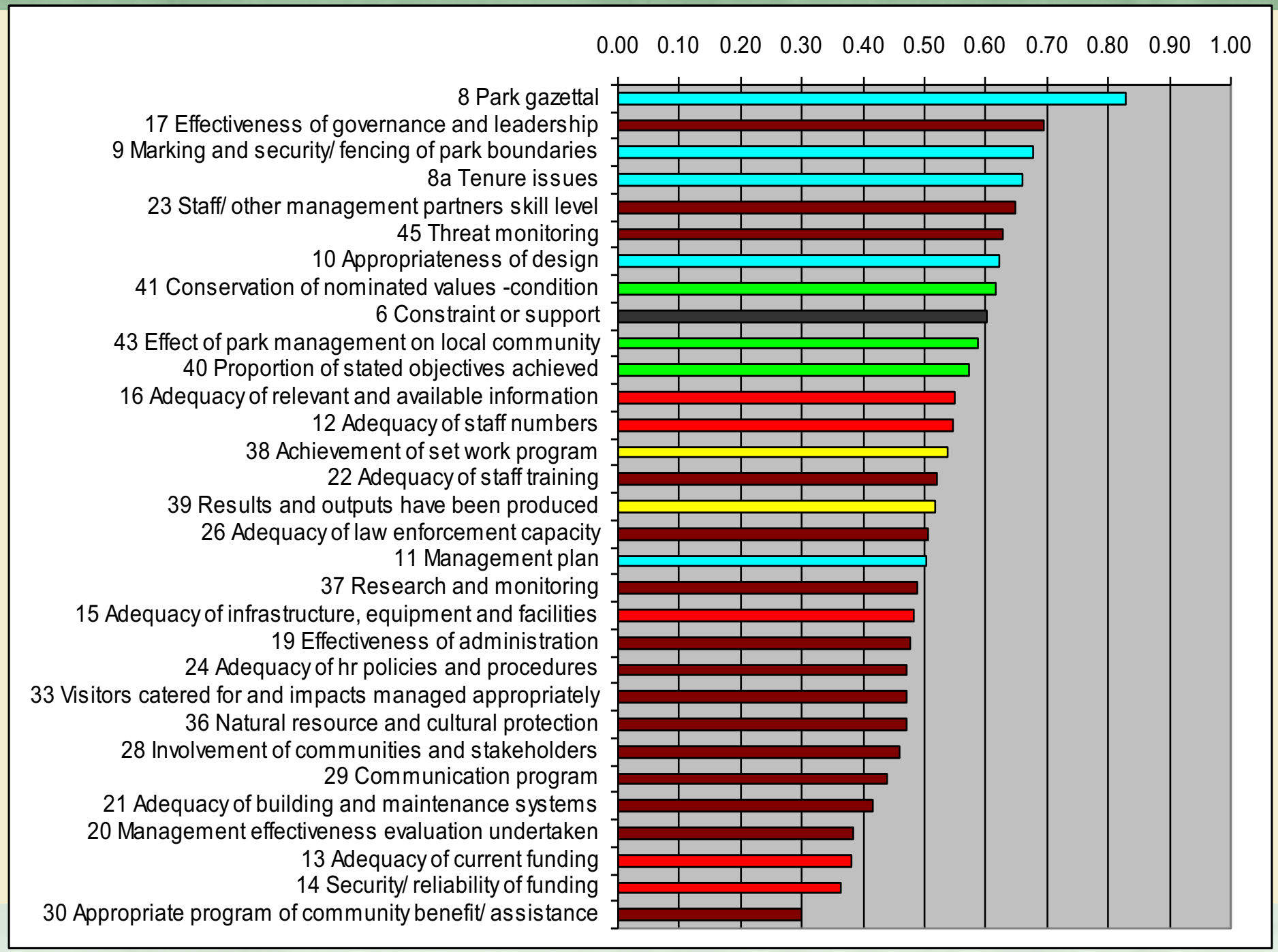
Some stats (by 2014)

95 methodologies recorded
57 with available records of site assessments

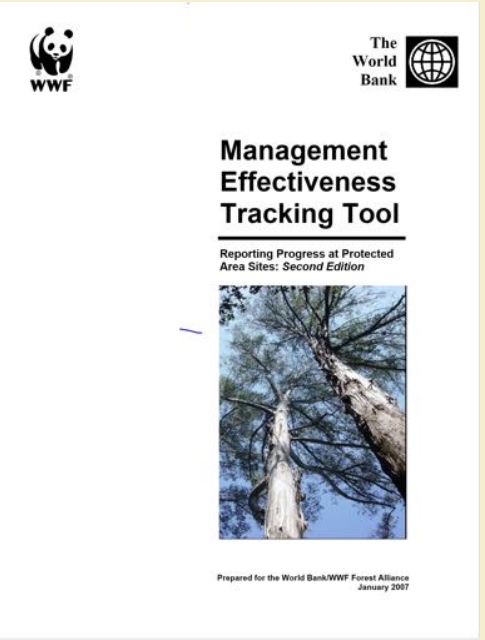
Most used methods (no. of assessments)

METT 4247 across 125 countries
NSW State of Parks 3552 in one country
Birdlife (IBAs) 2997 across 137 countries
RAPPAM 2676 across 64 countries


% of PA estate assessed for PAME
0
<10%
10-30%
30-60%
>60%


0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
8 Park gazettal
17 Effectiveness of governance and leadership
9 Marking and security/ fencing of park boundaries
8a Tenure issues
23 Staff/ other management partners skill level
45 Threat monitoring
10 Appropriateness of design
41 Conservation of nominated values -condition
6 Constraint or support
43 Effect of park management on local community
40 Proportion of stated objectives achieved
16 Adequacy of relevant and available information
12 Adequacy of staff numbers
38 Achievement of set work program
22 Adequacy of staff training
39 Results and outputs have been produced
26 Adequacy of law enforcement capacity
11 Management plan
37 Research and monitoring
15 Adequacy of infrastructure, equipment and facilities
19 Effectiveness of administration
24 Adequacy of hr policies and procedures
33 Visitors catered for and impacts managed appropriately
36 Natural resource and cultural protection
28 Involvement of communities and stakeholders
29 Communication program
21 Adequacy of building and maintenance systems
20 Management effectiveness evaluation undertaken
13 Adequacy of current funding
14 Security/ reliability of funding
30 Appropriate program of community benefit/ assistance

The Management Effectiveness Tracking Tool (METT): Brief description



- Rapid Assessment based on a scorecard questionnaire
- Based on the WCPA Framework (but focuses on context, planning, inputs and processes)
- Applied in over 100 countries to date; over 3200 assessments. Compulsory for all GEF projects

Designed by WWF and World Bank for:

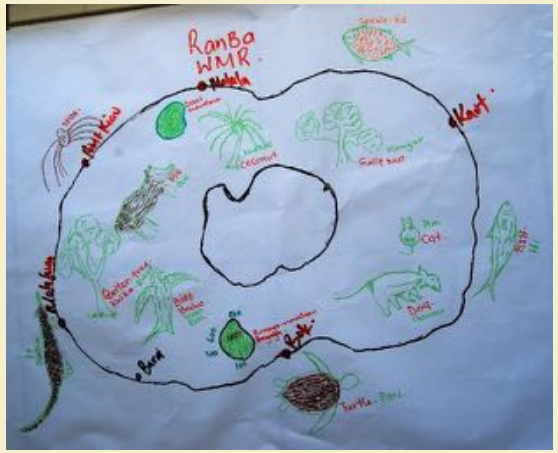
- Single-PA assessments
- Donor/ treasury evaluation (GEF (2000 assessments), WWF)
- To improve management (adaptive management)
- For accountability/ audit

3 main parts to a standard METT

1. Basic information about the protected area
2. Threats assessment
3. ‘30 questions’

Developing the PNG-METT

- Changed the language to reflect customary ownership of protected areas, and formal vs informal protected areas (STILL needs more work)
- Less jargon



- Added section where people nominate their key values and later assess them
- Added benefits checklist
- Added three key actions for the future
- Produced summary including strengths and weaknesses of each PA

Workshop-based, but complement with field visits where possible.

In PNG, contact between CEPA staff and landowners was a very valuable

Libano-Hose Wildlife Management Area

Mt Bosavi District, Southern Highlands Province

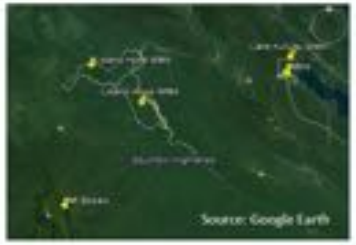
Libano-Hose WMA is located on the north-eastern slopes of Mt Bosavi in the Kikori River Basin/Great Papuan Plateau area. This WMA is contiguous with Libano-Arisai WMA, and together they form a protected block of 9500ha. Mt Bosavi is a 2,507m collapsed cone of an extinct volcano. The area has karst landscapes (Darai limestone) and waterfalls (Hegigio Gorge and Wassai and Wawoi waterfalls) and contains a large tract of undisturbed forest. The WMA is very remote, with no road access to the WMA or nearby settlements.

Libano-Hose WMA in brief

Gazetted 02/02/2008
4830 ha
Customary land; customary landowners 4 clans: Senisi mahi (bandicoot), Senesi wallabiso, Senesi kata and Senesi Widdisi
Purpose: to stop logging because it will destroy the environment
Very isolated area with no road access and little infrastructure
No people live within the WMA, which is about 25km from the village; ~1500 people live in the area
No management plan, but agreed objectives and traditional laws
Strong traditional rules, customs and language
No employment, budget, equipment or tourism
Many customary landowners are not supportive of the WMA into the future unless it is seen to bring them economic benefits.

Management objective:

- ✓ *Protect area from logging*
- ✓ *Limit hunting to satisfy special needs only*



Participants' perspective on Libano-Hose WMA's values and benefits

In 1995 the World Wildlife Fund explained to us that logging would 'bagarap' the forest. The whole village went into an agreement, that logging could take place but not within the area to be dedicated as a WMA. We like many things about the WMA. The rivers are important. The Hose River is very fresh and it cures some sicknesses. The He-Gigio River is brown, a different colour, but this is natural, and it has straight running water. The Libano and other rivers are blue. These rivers are very beautiful and there are some waterfalls. The fish are important. There are common ones and some special ones for eating (for taste). We have freshwater crocodiles and we kill them for meat and for their skins (sometimes these are sold) and we take eggs and grow the crocodiles. We have many trees with insects and they tell us the time. Butterflies are in the forest and when they are flying around they look colourful and good. When the crocodiles are sleeping on the beach, the butterflies try to sit on them. We also have many caves and there are flying foxes in the caves and in the trees (these are the special ones – they are bigger and the meat is very tasty). We also have frogs, megapodes and beetles.

Key Values, Condition and Trend

Value	Condition	Trend	Description
Forest and plants	Very good	↔	Tall virgin rainforest with diverse species, due to the large altitudinal extent of WMA (i.e. including alpine, montane and lowland forest); little disturbance as no settlement in WMA
Forest animals	Very good	↔	Many animals, e.g. New Guinea crocodile *Crocodylus novaeguineae* (income from selling the skin), flying foxes and many bird species (e.g. palm cockatoo) and fish; provide food and protein; we try to make sure that the animals are easy to catch and there are plenty of them
Rivers and fish	Very good	↔	Many rivers flow down Mt Bosavi, clean water for drinking and also water comes from the caves (often underground); decline of fish due to the introduction of tilapia
Insects	Very good	↔	Many insect species - we like them as they help us to tell the time, and they are important for science
Landscape and geological significance (nominated by assessors)	Don't know	Don't know	*Rugged and dissected landscape centered around the cone and crater of the extinct Pleistocene strato-volcano; 2,500m above the floodplain of the Fly-Strickland Rivers; caldera is ~4km wide and 1 km deep; highest volcano in the East Asia/West Pacific and retains continuous intact tracts of vegetation from the summit to the lowlands, an altitudinal range of about 2,400m*

Threats

Description	Impacts
Climate change (droughts, temperature extremes)	People observe changes in the climate and indicate that the main impact is on their food crops; need to develop appropriate climate change adaptation plans.
Culture	Culture is mainly practiced in ceremonies now; our Tok ples is strong.
Invasive pest animals	Tilapia and carp in waterways; impact on native fish populations.

Enhancing our Heritage Toolkit

- Built around the WCPA Framework
- 12 tools which can assess a range of indicators within the Framework
- Many tools drawn from best practices around the world - but often simplified
- Tools can be adapted to suit a site's individual needs:
  - supplement existing assessment activities
  - point of reference to develop new assessment tools to meet site needs
  - build a complete assessment system from the start


Aldabra Atoll, Seychelles


Bwindi Impenetrable, Uganda


Serengeti, Tanzania


Kaziranga, India


Keoladeo, India


Royal Chitwan, Nepal


Rio Platano, Honduras


Sangay, Ecuador


Canaima, Venezuela

State of the Parks systems eg

Comprehensive systems in some Austalian States (esp NSW and Victoria)

- Developed as a collaboration between University of Queensland and park management agencies
- In NSW – all 900+ reserves assessed every 3 years
- In Victoria – 400 most significant reserves assessed every 3 years
- Process for assessment, auditing and analysis of data
- Linking results to strategic plans and regional operational planning as well as park planning and management

3. Weed management

1. ☐ Weeds are not a threat to values in this reserve AND there is no weed management program
2. ☐ There is insufficient information to assess how effective management has been in addressing negative impacts from weeds in this reserve

Assessment 1: Approach to management		Assessment 2: Effect of management	
3. **What is the overall approach to weed management in this reserve?**		4. **How effective has management been in addressing negative impacts from weeds in this reserve?**	
☐	Implementation of a comprehensive, planned approach	☐	Impacts are negligible
☐	Implementation of a planned approach, constrained in scope or capacity	☐	Impacts are diminishing
☐	Reactive management	☐	Impacts are stable
☐	Little or no management	☐	Impacts are increasing

5. **Reason for management approach**	Select from list
6. **Justification/Comment**	

Evidence to support assessment	
7. **Evidence types**	8. **Details of evidence** (e.g . years of experience, details of published sources)
☐ Staff experience	
☐ Research	
☐ Planning documents	
☐ Specialist opinion	
☐ Community opinion	
☐ Corporate data	
☐ Monitoring	

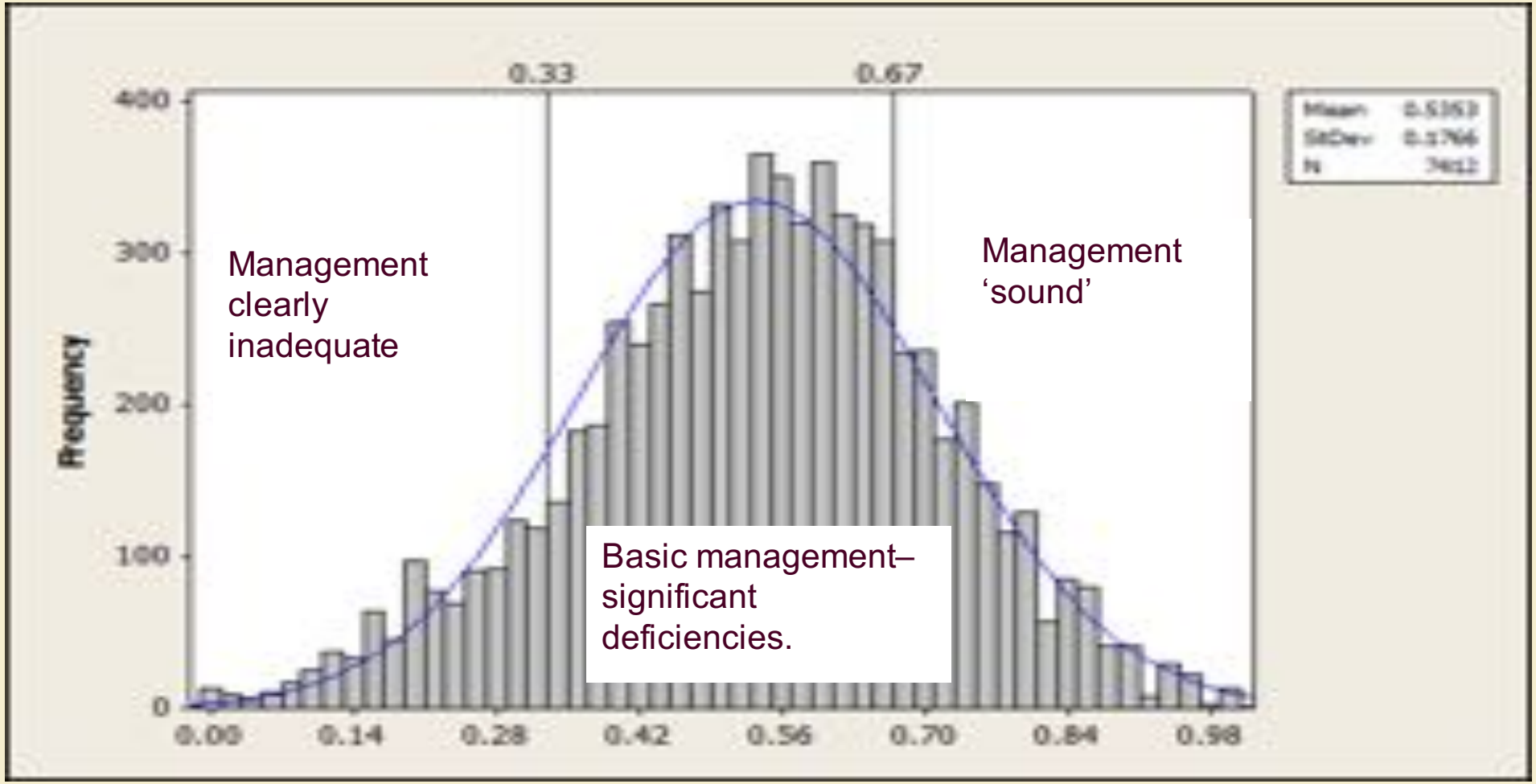
Detailed assessment of weed species identified for this reserve (please update existing records) (optional)

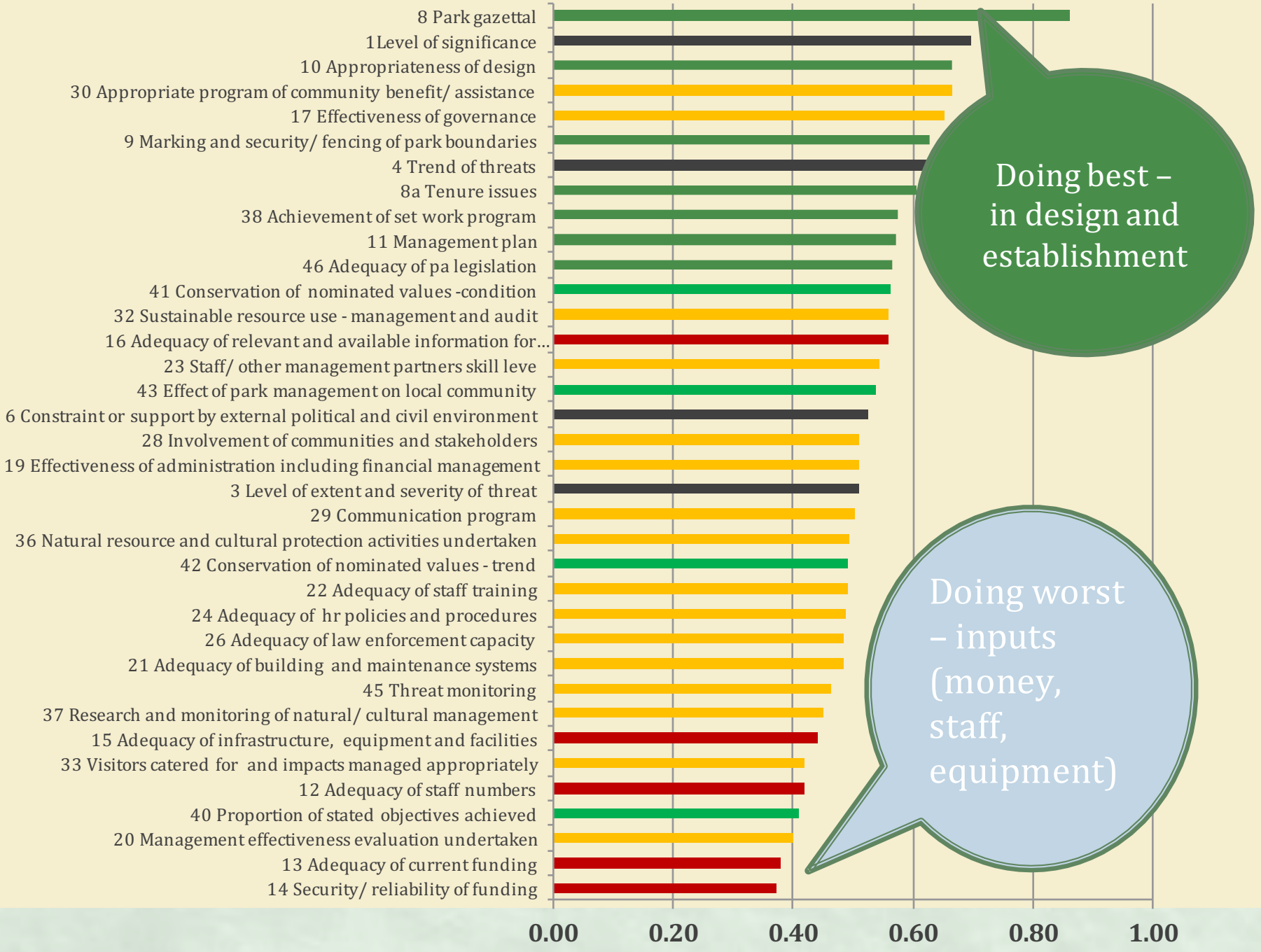
9. **Weed species**	10. **Extent**	11. **Aim of management**	12. **Approach to management**	13. **Effect of management**	14. **Evidence for effect of management assessment**
Select from list	Select from list	Select from list	Select from list	Select from list	
Select from list	Select from list	Select from list	Select from list	Select from list	
Select from list	Select from list	Select from list	Select from list	Select from list	

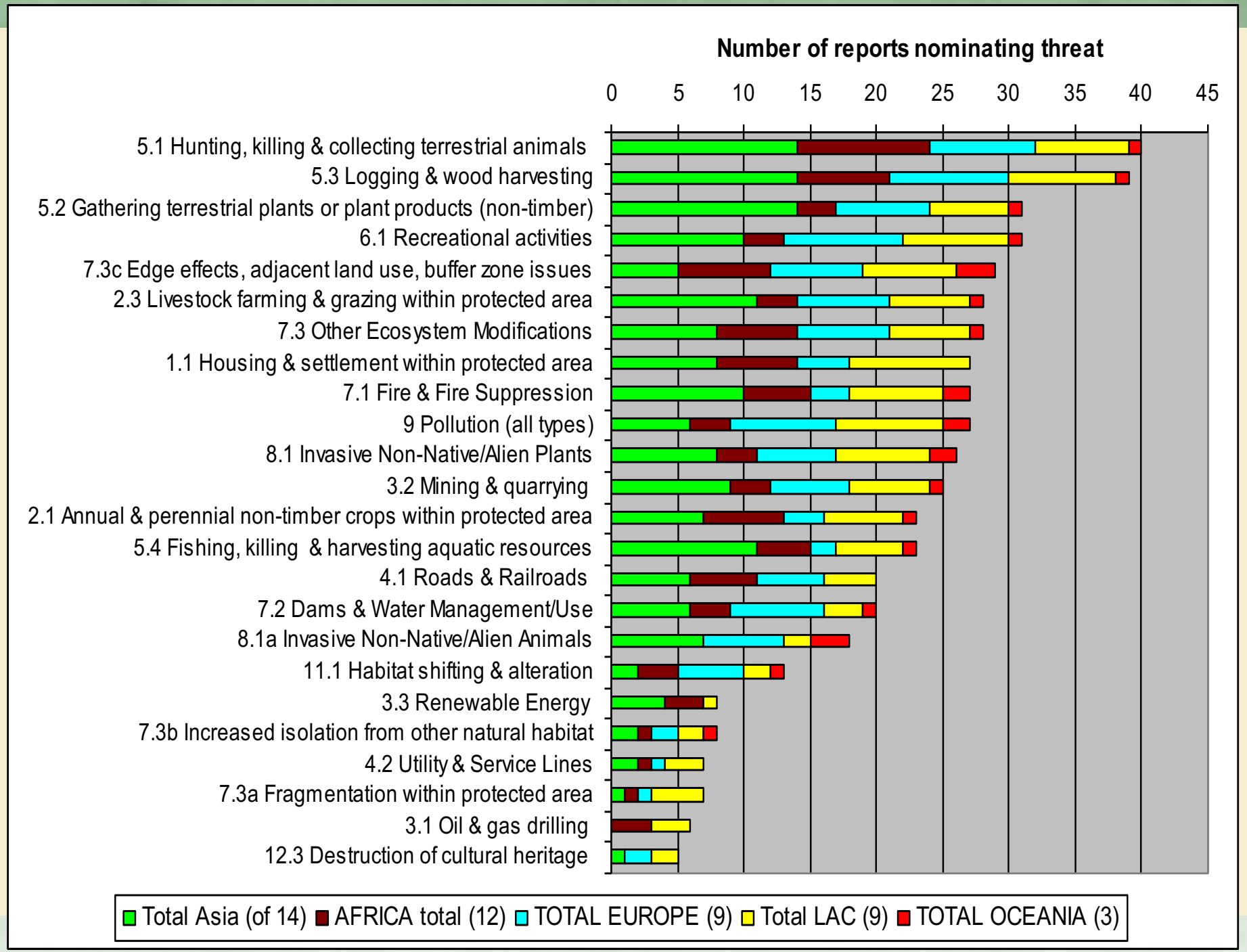
Identify proposed actions to address weed issues	
15. **Proposed action**	16. **Comment**
Research/Monitoring/Survey	
Select from list	
Select from list	

Regional Manager Review
Justification/Comment

Mean of management effectiveness indicators (2014)




8 Park gazettal
1Level of significance
10 Appropriateness of design
30 Appropriate program of community benefit/ assistance
17 Effectiveness of governance
9 Marking and security/ fencing of park boundaries
4 Trend of threats
8a Tenure issues
38 Achievement of set work program
11 Management plan
46 Adequacy of pa legislation
41 Conservation of nominated values -condition
32 Sustainable resource use - management and audit
16 Adequacy of relevant and available information for...
23 Staff/ other management partners skill leve
43 Effect of park management on local community
6 Constraint or support by external political and civil environment
28 Involvement of communities and stakeholders
19 Effectiveness of administration including financial management
3 Level of extent and severity of threat
29 Communication program
36 Natural resource and cultural protection activities undertaken
42 Conservation of nominated values - trend
22 Adequacy of staff training
24 Adequacy of hr policies and procedures
26 Adequacy of law enforcement capacity
21 Adequacy of building and maintenance systems
45 Threat monitoring
37 Research and monitoring of natural/ cultural management
15 Adequacy of infrastructure, equipment and facilities
33 Visitors catered for and impacts managed appropriately
12 Adequacy of staff numbers
40 Proportion of stated objectives achieved
20 Management effectiveness evaluation undertaken
13 Adequacy of current funding
14 Security/ reliability of funding
0.00
0.20
0.40
0.60
0.80
1.00
Doing best – in design and establishment
Doing worst – inputs (money, staff, equipment)


Number of reports nominating threat
0
5
10
15
20
25
30
35
40
45
5.1 Hunting, killing & collecting terrestrial animals
5.3 Logging & wood harvesting
5.2 Gathering terrestrial plants or plant products (non-timber)
6.1 Recreational activities
7.3c Edge effects, adjacent land use, buffer zone issues
2.3 Livestock farming & grazing within protected area
7.3 Other Ecosystem Modifications
1.1 Housing & settlement within protected area
7.1 Fire & Fire Suppression
9 Pollution (all types)
8.1 Invasive Non-Native/Alien Plants
3.2 Mining & quarrying
2.1 Annual & perennial non-timber crops within protected area
5.4 Fishing, killing & harvesting aquatic resources
4.1 Roads & Railroads
7.2 Dams & Water Management/Use
8.1a Invasive Non-Native/Alien Animals
11.1 Habitat shifting & alteration
3.3 Renewable Energy
7.3b Increased isolation from other natural habitat
4.2 Utility & Service Lines
7.3a Fragmentation within protected area
3.1 Oil & gas drilling
12.3 Destruction of cultural heritage
Total Asia (of 14)
AFRICA total (12)
TOTAL EUROPE (9)
Total LAC (9)
TOTAL OCEANIA (3)

“W

Community and stakeholder engagement	
Level of engagement and support from the Community / Stakeholders	↑
Change in the level of engagement and support from the Community / Stakeholders	↑

Rangers have initiated a marked increase in public interpretation over the past 2 years…..

In the other PAs, monitoring illegal activities is difficult, and therefore the PAs are accessible to such activities. In Bui, accessibility is a problem especially during the rainy period when canoes have to be used to get into the park; besides, the entire western boundary is international and so, staff cannot station there. In Ankasa, the terrain is difficult and staff strength is low; in Mole, the problem is that the park is huge and activities like hunting are difficult

Above all, evaluation must be linked to management and lead to better managed parks

- All methodologies will fail if the findings are not used to improve things on the ground!
- The process is as important as the questions
- PAME can't do everything
- This is just a step in the journey

Discussion points

- Does your country have a good idea about their management topics and standards? How are these applied to community-based areas?
- What methodologies are being used in the Pacific to measure management effectiveness?
- Should countries try to have a similar (harmonised but not identical) methods?
- How often should the assessments be done?
- Should PIPAP include and analyse management effectiveness data for the whole region?
- What would this be used for?

Topics usually sort into eg natural resource management, cultural, socioeconomic, visitors and admin/ governance