



Protected Area Management Effectiveness (PAME)

*Report on a training course for
protected area staff in Myanmar*

December 2018

Marc Hockings

Sue Stolton

Nigel Dudley

Marine Deguignet



Contents list

Introduction	3
Sites taking part in the METT training and initial analysis	4
Opening ceremony and introduction	5
The WCPA ME Framework	6
Using the ME Framework	7
The Management Effectiveness Tracking Tool	8
Introduction to the Excel METT	11
Datasheet 1: Introduction and discussion	11
Threats Assessment: Introduction and discussion	12
Feedback on threats analysis	13
METT assessment – question by question	15
Next steps with the Myanmar METT	22
Final day: Use of PAME and ways forward	22
The Global Database on Protected Area Management Effectiveness – GD-PAME	22
How to use the results	23
Preliminary results	24
Suggested next steps	31
Participant list	32

Introduction



The following report summarises results from a five-day workshop on capacity building training for Protected Area Management Effectiveness (PAME) for 22 protected areas in Myanmar, held at the Hmawbi CFDT, the Forestry Training Center.

The workshop focused on the development of a management effectiveness system for Myanmar, based on the Management Effectiveness Tracking Tool (METT). The overall objectives of the workshop were to:

1. Introduce protected area management effectiveness (PAME) assessment: best practices, tools, global targets and data collection
2. Introduce the Management Effectiveness Tracking Tool (METT) and develop guidance/adaptations for implementation in Myanmar
3. Produce an excel Myanmar-METT for continued use in country
4. Train participants in the use of the METT
5. Carry out a preliminary assessment of protected areas in Myanmar using the METT
6. Develop site-based plans to improve PAME, drawing on the METT results
7. Write a preliminary report on PAME of protected areas in Myanmar

The workshop was a mix of presentations and working sessions; a summary of these are presented here. PowerPoint presentations and worksheets from the workshops were shared with participants.

Marc Hockings, Sue Stolton, Nigel Dudley and Marine Deguignet
9th December 2018

**Many thanks to
NWCD, the
Norwegian
Environment
Agency and IUCN
for organising the
workshop and all
the participants for
their time, energy
and diligence
during the week**

Sites taking part in the METT training and initial analysis

Alaungdaw Kathapa National Park (NP)

Chatthin Wildlife Sanctuary (WC)

Hkakaborazi NP

Hponkarazi WS

Htamanthi WS

Hukaung Valley WS

Indawgyi WS

Inla Lake WS

Kyeik Hti Yoe WS

Lampi Marine NP

Meinmahla Kyun WS

Minsongtaung WS

Moeyungyi WS

Nat Ma Taung NP

North Zammari WS

Panlaung and Padalin Cave WS

Pi Taung WS

Popa Mountain Park

Rakhine Yoma Elephant Range

Sheve U Daung WS

Shwe Set Taw WS

Taninthayi Nature Reserve

Opening ceremony and introduction

The workshop started with a welcoming ceremony. **U Thein Toe**, Director, Forest Department, opened the proceedings. He noted the importance of protected areas in Myanmar for biodiversity and ecosystem services and welcomed the participants to the workshop. **Per Espen Fjeld**, Senior Advisor, Norwegian Environment Agency followed. He provided a brief overview of the Norwegian Environment Agency's long term programme to develop capacity in protected area management in Myanmar. This workshop is the eighth run as part of the Myanmar project. **Jake Brunner** from IUCN gave the final welcome. He provided a quick overview of recent developments in conservation in Myanmar. He started by noting that Myanmar has recently become a member of IUCN; this follows long engagement in the country including involvement in the development of the National Biodiversity Action Plan (NBSAP). He noted that management effectiveness was not a focus of the plan, and that this workshop was an important contribution in filling this gap. **Zin Phyo Han Tun**, Nature and Wildlife Conservation Division Forest Department, Ministry of Natural Resources and Environmental Conservation, who oversaw the opening ceremony, then formally opened the workshop.



The workshop started with a session of participants' introductions facilitated by **Jake Brunner**.

Marc Hockings then introduced the objectives of the workshop.

1. Introduce protected area management effectiveness (PAME) assessment: best practices, tools, global targets and data collection
2. Introduce the Management Effectiveness Tracking Tool (METT) and develop guidance/adaptations for implementation in Myanmar
3. Produce excel Myanmar-METT for continued use in country
4. Train participants in the use of the METT
5. Carry out a preliminary assessment of protected areas in Myanmar using the METT
6. Develop site-based plans to improve PAME
7. Write a preliminary report on PAME of protected areas in Myanmar

Sue Stolton introduced the overall agenda and explained what will happen during the week's training.



The WCPA ME Framework

Marc gave an **introduction to protected area management effectiveness**. Marc noted the importance of effective management, in terms of Aichi Biodiversity Target 11 of the Convention on Biological Diversity and in combating the global “biodiversity crisis”. He noted that the global growth in protected areas is one of the best known responses to this crisis.

IUCN’s World Commission on Protected Areas (WCPA) defines protected area management effectiveness (PAME) as ‘...the assessment of how well an area is being managed – primarily the extent to which it is protecting values and achieving goals and objectives’ and is based on the idea that an evaluation should reflect three main assessment themes:

- Protected area/s design and planning issues
- Adequacy and appropriateness of management systems and processes
- Delivery of protected area objectives including conservation of values

Evaluation can:

- Help us manage better (adaptive management)
- Help reporting (promote accountability and transparency)
- Help allocate resources efficiently (prioritising)
- Help build a supporting constituency (stakeholder participation and understanding)

The WCPA developed a Framework for PAME (see side illustration) and published guidance to protected area specialists on both the structure of, and process for, developing an evaluation together with a checklist of issues that need to be measured.

The WCPA Framework suggests that systems for PAME should include six elements for assessing management. Each element is a complementary rather than an alternative approach to assessing management effectiveness. Thus the assessment needs to be made in the **context** of the protected area, so assessments first need to gather data on issues relating to the area’s values, threats and opportunities, stakeholders, and the management and political context. Management starts with **planning** of strategies needed to fulfil the vision, goals and objectives of protection and to reduce threats. To put these plans in place and meet management objectives, managers need **inputs** (resources) of staff, money and equipment. Management activities are implemented according to



accepted **processes** (i.e. best practices); which produce **outputs** by completing activities outlined in work plans. The end result of management is the achievement of **outcomes**, i.e. reaching the goals and objectives set for the biological conservation, economic development, social sustainability or cultural heritage of the protected area. Marc went on to discuss each of these elements in more detail. He stressed the importance of evaluation taking into consideration all elements of the framework.

Using the ME Framework

Marc gave an introduction to protected area management effectiveness and encouraged participants to start identifying different elements of the management effectiveness framework that are relevant to their sites. An hour-long discussion captured a set of issues under each of the elements of the framework which are outlined in the table below.

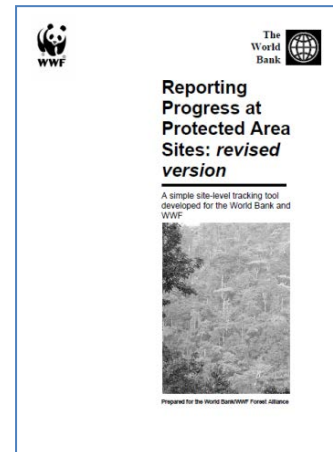


Context	Planning	Inputs	Process	Outputs	Outcomes
International designations – e.g. Ramsar	Do you have a management plan?	Number of staff	How is the plan developed?	Is the management plan implemented?	Survival/species of key values
Significance of the site – values	Does the plan set clear objectives based on values and threats?	Capacity of staff	Are there appropriate processes to ensure safety of staff?	Number of patrols	Staff are safe and secure in their jobs
Endemic species	Zoning – buffer zones ect	Do resource constraints limit implementation of management plans?	Are there discussions with local communities about the plan?	Educational programmes	Are illegal activities controlled?
What threats does the site face?	Habitat restoration plans	Do you have adequate equipment and weapons?	Ongoing research ecosystem services	Are poachers persecuted?	Awareness of communities about biodiversity
Baseline data on ecosystem services	Working with local people	Budget – adequacy	Participatory approaches to management	Number of meetings with community	Species recovery
Insecurity	Research	Budget – security	Are awareness-rising programmes being conducted appropriately?	Percentage of PA capable of management	Habitat recovery
Political support		Capacity of local communities for ICCA ect.	Joint management activities	Extent to which habitat restoration takes place	
			Removal of invasive species		
			Habitat restoration		
			Is equipment		

Context	Planning	Inputs	Process	Outputs	Outcomes
			well maintained?		
			Are there livelihood programmes for local people?		
			Collaboration with NGO regarding livelihoods		
			Financial planning – accounting systems		
			Financial planning – management of entrance fees		

The Management Effectiveness Tracking Tool

Sue gave an introduction to using the METT. Following growing interest in protected area management effectiveness (PAME), in 1999 the World Bank/WWF Alliance for Forest Conservation and Sustainable Use set a target of: *50 million hectares of existing but highly threatened forest protected areas to be secured under effective management by the year 2005*. Various methods were used to measure the target, culminating in development of the Management Effectiveness Tracking Tool (METT), a simple, questionnaire type approach to assessing PAME. The METT has since become the commonest PAME tool, used in over 3,500 protected areas covering over 4.2 million km² (i.e. over a fifth of the world’s terrestrial protected areas by area) in at least 127 countries. The METT is aligned to IUCN WCPA’s PAME Framework, which guides most of the PAME tools developed worldwide. The METT has been used by many governments, nearly all the big international NGOs working on conservation issues, as well as by conservation conventions (e.g. R-METT for the Ramsar Convention), major funders (most significantly the GEF), academics and researchers.



It provides the opportunity to use a single tool over all protected areas sites in a country. It supplies consistent data over time. It is relatively quick and easy to use. Following training and adaption it should also be a fairly quick process to complete. It provides a score, is an uncomplicated tool, addressing all elements of management effectiveness. Most of the questions focus on management processes and less on outputs and outcomes.

The METT consists of two main sections: **datasheets** of key information on the protected area and an **assessment form**

containing a questionnaire with four alternative responses to 30 questions, each with an associated score, a data field for notes and a justification for the answers, and a place to list steps to improve management if necessary. The section on “next steps” is perhaps the most important of all because it provides an immediate set of actions to address perceived weaknesses in management.

The METT is strongest at measuring the effectiveness of management and weaker at reflecting overall conservation results. It was designed primarily to track progress over time at a single site and to identify actions to address any management weaknesses; rather than to compare management between different sites. However, the development of a large global database of METT results has encouraged several comparative analyses, to identify those management processes critical to success. It has been applied in many countries and by many organisations, often with minor regional adaptations.

Experience has shown that many users do not apply the METT as effectively as possible, in particular focusing on the score rather than the list of necessary next steps (a checklist of how management needs to change). In addition, there is confusion about interpretation of some of the questions. The *METT Handbook* (Stolton and Dudley, 2016) was produced after an extensive review of METT implementation worldwide; the handbook aims to improve the efficacy with which the METT is applied. It includes detailed additional guidance on the application of the METT and best practices for developing, implementing and using the results of the METT. Best practices are summarised below.

Carefully plan the METT implementation

1. *Plan the implementation process.* Review the METT before undertaking the assessment and assess and compile the information available to complete it. Then think about capacity and pre-assessment training needs, adaptation, timing, scope and scale, verification, etc. Identify and invite specialist staff, external experts and key stakeholders to participate in the assessment where possible (see point 7 below).
2. *Allow enough time to complete the assessment in full.* A good METT cannot be done in a quick hour; most questions take serious thought. The first METT is likely to take at least a day, probably two. Subsequent repeat METTS may be a little quicker.

Do it properly and do it all



3. *Complete all the METT including all questions on the datasheets and narrative sections related to the multiple choice questions.* The next steps section is essential as the steps identified create a quick check list of actions which can be taken to improve management.

4. *Use quantitative data wherever available to support assessment.* Quantitative data is particularly important when answering the outcome questions.



Adapt and translate

5. *Adaptation is encouraged.* The METT is a generic tool designed for global use; thus it is unlikely to fit one protected area (or system, type etc) of area perfectly. Ideally the adaptations keep the basic format of the METT, adding to, rather than changing, the wording of the METT (e.g. providing additional advice on interpretation for local conditions or by additional questions).

Repeat the assessment

6. *The METT is designed to track progress over time.* Sites/networks planning to implement the METT should thus aim to repeat the assessments every few years; ideally the METT should be an automatic part of annual planning.

Consult and get consensus

7. *The implementation of the METT should wherever possible include a wide range of rightsholders and stakeholders to aid insight in the assessment results.* Ideally this should include people living inside and outside the protected area, such as local communities, to bring richer insights to management effectiveness.

Build capacity and guidance

8. *Capacity building is advisable so that all participants understand PAME.* Although designed as a simple tool, implementing the METT may be the first time protected area staff and other rightsholders and stakeholders have been involved in assessing PAME.

9. *Developing an understanding of the METT and how it can be implemented in a specific jurisdiction will help ensure valid results.* As a generic tool the METT questions can be interpreted differently in different situations/jurisdictions, thus reviewing the METT and developing guidance on implementation will help ensure its usefulness.



Verify results

10. *Verification processes can be useful.* Although designed as a self-assessment tool, METT implementation can involve verification processes; from simple checking of completed METTs by external

assessors to more detailed field verification exercises involving data collection.

Implement recommendations

11. *Using and disseminating the results.* Completing the METT is only the first step of the assessment; the implementation process should include adaptive management (e.g. a plan of action).

Until recently, the METT as generally been filled out on paper. The German institution KfW has now provided an Excel version, so the current exercise is using the new Excel version.

For more information see: *METT Handbook: A guide to using the Management Effectiveness Tracking Tool (METT):*
http://wcmc.io/METT_Handbook

Introduction to the Excel METT

Marc introduced the Excel version of the METT and described how participants would be completing it during the weeks' course.

Datasheet 1: Introduction and discussion

Nigel Dudley gave an introduction to completing the values and objectives section of the METT, and included some examples of values identified when the same exercise was conducted in Bhutan.

Values are varied but could include:

1. A particular species
2. An ecosystem
3. An unusual geographical feature
4. A site for bird migration
5. A cultural site



Participants were asked to identify up to five values for their site and then identify their two main management objectives. Objectives can cover a range of issues including:

- Protection of key species
- Ecosystem restoration
- Addressing human wildlife conflict
- Reducing poaching pressure
- Strengthening management capacity
- Developing local livelihoods

Threats Assessment: Introduction and discussion

Nigel introduced the threat assessment section of the METT. He introduced a generic threat list which was then adapted for Myanmar. He noted that in some cases there might be a need to define more clearly the level of risk, and noted that there might be a need to set thresholds for better assessing some threats (in the event this was not done in the Myanmar METT). Some clarifications to the METT that emerged from discussion included noting threats from shifting cultivation, sand extraction etc. Additional threats identified were sound pollution from roads and boats and the loss of land tenure (in terms of a threat to culture as local people lost their lands when protected areas were set up). It was noted that there are multiple ethnic groups in Myanmar all of whom have traditional ceremonies and traditions, and that many protected areas overlap with these cultural and religious areas and that at present this was sometimes posing a threat to protected areas. It was also noted that the new protected areas law in Myanmar offered an opportunity to create new relationships between protected areas and cultural and religious uses of areas.



Participants were then asked to make an assessment of threats in terms of two categories:

Extent

Very High: The threat is likely to be widespread or pervasive in its scope and affect the value throughout the value's occurrences at the site

High: The threat is likely to be widespread in its scope and affect the value at many of its locations at the site

Medium: The threat is likely to be localized in its scope and affect the value at some of the target's locations at the site

Low: The threat is likely to be very localized in its scope and affect the value at a limited portion of the value's location at the site.

Severity

Very High: The threat is likely to destroy or eliminate the value over some portion of the value's occurrence at the site

High: The threat is likely to seriously degrade the value over some portion of the value's occurrence at the site

Medium: The threat is likely to moderately degrade the value over some portion of the value's occurrence at the site

Low: The threat is likely to only slightly impair the value over some portion of the value's occurrence at the site

Participants worked in groups based around similar ecosystem types:

1. Freshwater wetlands
2. Coastal and marine
3. Dry forest
4. Elephant sanctuaries
5. Northern Mountain Forest Complex
6. Mid-elevation forest

This grouping of sites was then used for the remainder of the training course.

Feedback on threats analysis

Participants fed back both with some results and questions and suggestions regarding the form of the assessment:

Table 1:

Some issues can represent both potential and actual threats for the protected area but also provide livelihood opportunities for local people; so there is often an issue of social versus biological concerns. While biodiversity values are considered to be the most important we also need to consider cultural values that often exist beyond the border of the wildlife sanctuary itself. In some national parks local people are against the PA patrols and for instance used to burn patrol cars. How can we link disturbance by people to the conservation activities in the sheet? – **It was noted that we might need another threat listing to reflect local political opposition to a protected area.** It was also clarified that an “outbreak” of a native species (e.g. a rodent) in or around a PA this should be classified as an invasive species, a **note clarifying what we classify as an invasive species should be added to the Myanmar version of the METT.**



Table 2:

It was clarified that it is possible to have a high score for extent of threat and low score for severity; for example local people fishing widely in a protected area but without apparently affecting fish populations.

Table 3:

Further clarification was requested with respect to cultural and social threats: these are threats *to* cultural and social values within the protected area (e.g. from tourism or site management activities) rather than threats *from* social activities.

Table 4:

Additional threats (or additional explanation to existing threats) were suggested regarding **land grabbing** and **inter-communal tensions, including religious tensions**.

Table 5:

No particular issue was identified for change

Table 6:

Confusion about responsibility between different government departments sometimes resulted in people who had encroached into a wildlife sanctuary being given legal title to the land. Potentially a **further subsection of threats is needed, covering administrative issues, considering policy conflicts and lack of clarity about management roles**.



Table 7:

A particular issue was raised: at one site the military has blocked a wildlife corridor, forcing elephants into a smaller area, so that they stray outside and suffer poaching and revenge killings. A short-term response has been joint patrolling by rangers and police spreading beyond the borders of the protected area. These issues probably belong best in the section on planning but some further thoughts about clarification would be useful.

Summary: changes to threats analysis suggested during the feedback:

- An additional threat listing on entrenched local opposition (possibly as part of vandalism threat)
- Clarification note on invasive species
- Clarification note (possibly changes to title) on section on social and cultural threats
- Additional threat from land tenure and land grabbing
- Additional threat from inter-communal tensions including religious tensions
- Additional subsection on administration covering policy conflicts and lack of clarity about management roles

METT assessment – question by question

Marc introduced the rest of the METT assessment and started the process of collecting information from the participants. Each question was addressed in turn; the content was discussed and clarified and any necessary changes identified to make the METT better fit the conditions in Myanmar, along with notes of clarification. Participants then filled out each question for their site.



Legal status: all government protected areas are legally gazetted. Wording changes were needed in the notes to reflect the new law, which open up the potential to have Indigenous and Community Conserved Areas (ICCAs). Wording will be changed to “protected and conserved areas” to reflect the agreement of a new definition (at the Conference of Parties immediately preceding this meeting) of “other effective area-based conservation measure” (OECM) by the Convention on Biological Diversity. However, some gazetted protected areas remain as paper parks (they have no staff or office). It was suggested that the METT wording on the score for “2” be modified to include gazetted protected areas that are only paper parks; however it was *decided* that this would be better addressed under the question on staff resources. All protected areas in Myanmar should therefore score 3.

Protected area regulations: no particular changes were needed to this question.

Law enforcement: key issues in Myanmar include staffing capacity: number of staff, level of training and provision of equipment, capacity to get offenders appropriately punished. The fact that rangers come from the local community sometimes creates problems. While the law provides for quite strict penalties for poaching or wildlife killing, judges can overrule this and often give softer sentences. There is a need to educate judges about the importance of wildlife crime in Myanmar. The new law has tightened this a little, providing stronger minimum sentences. Insecurity is problematic in some cases: even if there are sufficient trained rangers they may be unable to patrol due to security issues. Information available from patrol data and staff knowledge can help provide information.

General change throughout: in “information sources” change *corporate data* to *departmental data*.

Nigel then presented the next set of indicators.

Protected area objectives: The question of objectives is linked in many cases to the existence of a management plan that sets out clear objectives. The issue here is whether the objectives in the plan actually drive management on the ground.

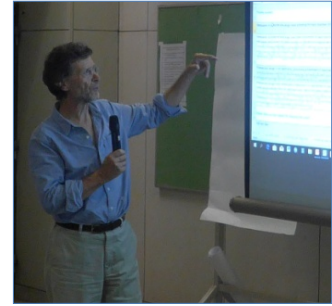
Protected area design: Assessing adequacy of protected area design needs to take account of the major values and objectives for the protected area that were identified in the site data sheet, where these were specified. This should also consider the integrity of the site (which for example has been assessed in relation to potential World Heritage listing for some sites).

Boundary demarcation: Important that the boundary is not only known but is clearly marked and understood by local communities and other stakeholders. This indicator is a good example of where there would be benefit from including local communities in the assessment as managers may think that local people know where the boundary is but in fact they might not be sure. Natural boundaries are often the best way to indicate where the boundary is rather than always using signage to physically mark the boundary. This is why we use the words “appropriately” in many of the indicators rather than being prescriptive about how management is carried out.

Management plan: The plan should be current; and implementation should be in progress relative to the lifetime of the plan (in Myanmar planning follows a ten year cycle). Implementation can be hampered by a range of reasons including budget, capacity and security. The question only refers to management plans and not to other topic-specific plans such as restoration plans, or to annual work plans.

Annual work plan: Myanmar has an annual work plan so the lowest score will not apply. Questions depend on the extent to which the plan is implemented and any reasons why elements have failed.

Resource inventory: It is important to stress that this refers to *natural* resources and not resources such as tools and equipment; this may need further clarification in the Myanmar METT. The key here is to understand about natural resources that are important for the management of the protected area; it is not necessary to know about every aspect of biodiversity (an impossible task). Assigning a value to this question depends on making a judgement call on what information is and is not needed for effective management of the site as a whole.



Protection systems: This question looks at both issues like poaching and at illegal resource use (e.g., collection of medicinal plants etc). It was noted that this was a complex issue in Myanmar as the protected area law prohibits resource use by local people, but there is an understanding that protection strategies need to move away from the 'fortress conservation approach' to an approach which supports sustainable livelihoods. It was also noted that some villages are within protected areas, and their resource use is subject to specific laws (e.g. law no 144). The new protected area law provides some potential opportunities for resource use. Zoning is being introduced from core zones, to transition and restoration zones which may allow some form of resource use. Most protected areas are carrying out regular patrols using SMART.



Research: most protected areas have research programmes going on. It was pointed out that research and survey work is different from monitoring. Monitoring is usually a task which is repeated regularly and is covered in question 26. Research and survey work is however about finding out what is in a site or looking into specific research questions and can often be a one-off exercise.

Resource management: This question looks at what type of active management is required to ensure the condition of the protected area. It can include issues like restoration, fire management etc. Examples of resource management in Myanmar include: breeding programmes, fire control relating specifically to turtle nesting sites, invasive species control (e.g. mimosa, water hyacinth etc).

Staff numbers and training: The question considers the adequacy of staff to fulfil the basic management requirements of the site. It was stressed that this assessment should be made by site staff on what level of staffing they thought they needed, irrespective of government guidance on staffing numbers. In the discussion it was particularly noted that field staff were a major gap. "Staff" in this context can include both staff employed by the government and staff employed by NGOs (e.g. WCS). However NGO funded workers carrying out specific projects, as opposed to being involved in overall management, should not be included. It was noted that when completing these questions it is good to list staff number and capacity first and then think about which of the multiple choice answers were most appropriate.

Current budget and security: It was stressed that question 15 was focusing on total budget from both government and NGOs. Question 16 looks at the *security* of budget; answers should focus on the certainty of budget renewal/NGO support. For example, in Myanmar the NEA funding is relatively long term and secure over multiple years.

Budget management: budget management is influenced both by the financial skills of the protected area managers and staff themselves and the professionalism with which budget is distributed. Administrative procedures that delay work can be important; a protected area budget that is only confirmed halfway through the year is much less useful than one confirmed at the start of the year.

Equipment: it was suggested changing text in the various questions to read "*equipment and facilities*". The focus should be on major needs: transportation, buildings, big equipment etc. It does not matter where the facilities come from – e.g. from government or an NGO – as long as they are available for the protected area staff to use. Decisions should be made on addressing basic needs.

Maintenance of equipment and facilities: one of the biggest problems in many protected areas is lack of maintenance of equipment so that it is unusable.

Education and awareness: It was noted that the word "appropriate" here covered both quantity and quality of the education programme.

Land/water use planning: This question initially focused on whether planning outside the protected area impacted on protected area management. It was asked how to score this question when there were no neighbouring land use pressures. It was suggested that in this case the question was not applicable and should be left out. It was also noted that negative impacts should also be assessed as a threat.

State and commercial neighbours: This question does not relate to local communities, which are dealt with in a separate question, but neighbours such as forestry companies, tourism operators etc. The focus should be in legal entities not illegal companies. It was discussed what the radius of these neighbours should be and if it should include business inside and outside of the protected area. It was stressed that it should be any entity that has an impact on the protected area. So the issue is not necessarily spatial but relates to the level of impact, e.g. tourism operations may be inside the



protected areas whilst dams may be a long way upstream. However both should be considered if they have an impact on the site.

Indigenous people: The question is addressing issues such as the opportunity for indigenous peoples to have their voices heard and to feed into management, in particular, regarding issues which impact their livelihoods. Input could be through a variety of mechanisms, formal or not. But the key issue is whether their views are taken account of. When answering the question is it important to think about both institutional norms relating to working with local people and site-based management initiatives. When assessing this question it is useful to also get the views of the community. It is important to note that the assessment should reflect current management practices rather than past practices.

Local community: This question is the same as the one above but focused on the dominant culture living around the protected area. It was stressed that the additional points after these questions relate to both indigenous and local communities. In the additional questions it was noted that the question related to welfare focused specifically on community well being, cultural preservation etc. Issues related to economic benefit are dealt with later in the METT.

Economic benefits: An example of economic benefit in Myanmar comes from the Wildlife Conservation Society, which supports local villagers in sustainable livelihoods around the protected area, including benefit sharing programmes. In some cases important cultural/religious sites are inside protected areas and local people gain financial support from selling goods to visitors, pilgrims etc. It was noted that this question however focuses specifically on benefits provided by the protected areas. Thus religious/cultural benefits would need to be directly linked to the site, for example if it was a sacred natural site or the religious site within the protected area was managed by the protected area authority. It may also be the case that the cultural site is visited in part because it is in a protected area – and thus a good place to visit for multiple reasons. In some cases traditional products may also be made from plants, honey etc from the area so this also is a benefit provided by the area.

In another case, a protected area has a major river running through it. If the protected area is contributing to water flow and quality then it can be considered to be providing economic benefits to agricultural users downstream.



It was suggested to make the questions clearer by stressing that benefits should be either “legal or sanctioned”, the later covering the case (as currently applies in Myanmar) where legislation is changing and some types of resource use leading to benefits may not be currently covered by legislation but are tacitly approved (i.e. sanctioned) by the protected area manager.



Monitoring and evaluation: This includes biological monitoring of key species as well as monitoring of management activities. The main objective of this question is to capture information on whether the key values of the protected area are being maintained. The question encompasses both the monitoring process itself and the responses; a monitoring system is only successful if it translates into adaptive management responses.

Tourism: This question includes tourism activities inside protected areas and nearby. The amount of infrastructure depends on the situation within the protected area; some will have very low tourism infrastructure because they are remote and attract people who are looking for a wilderness experience; other sites with higher levels of visitation will require more facilities. The emphasis of this question is therefore on the *appropriateness* of tourism facilities for a particular protected area. Protected areas without tourism should not answer this question.

Commercial tourism operators: Some problems associated with tourism should be noted in the threat assessment rather than in this question. Protected areas without tourism, or without tourism operators, should not answer this question.



Fees: This question is not relevant in most protected areas in Myanmar at the moment because fees are not collected; however we will keep the question in the METT because fees will be charged in the future. Discussion showed that fees are already starting to be collected in two protected areas.

Outcomes relating to natural and cultural values: Reporting on the outcomes of management with respect to natural and cultural values identified (i.e. this question does not address other important values, such as tourism). Time series data are particularly important in judging whether outcome trends are positive or negative. Some of the additional material in this section was not in the original METT, but was added in response to criticisms that the METT was weak in terms of measuring outcomes. The “trend” section focuses on what has happened in the past, rather than to speculate about what might

happen in the future. When making judgements it is important to have an idea of what the “normal” population of a species, or extent of a habitat, should be and to judge against that: the status of a population of deer should be judged against the number of deer that might be expected in a healthy ecosystem (the carrying capacity). Do we know the original condition of the ecosystem? Setting a real baseline is very important and it is hard to judge condition without information on past conditions.



Possible additional questions that could be included in the Myanmar METT

Marc started the process of introducing some potential additional METT questions and exploring whether participants wished to include them in the standardised METT being modified for use in Myanmar.

Detailed assessment of species: This looks at “key indicator species” which will provide some general information about whether or not the protected area is working to preserve biodiversity. These might be high profile species, like the tiger, or others that are sensitive to disturbance so that their survival indicates that overall conditions are acceptable. Carrying out this element would first involve choosing a small number of indicator species, then making judgements about changes in the species’ range, population size, reproductive success, age structure, habitat quality and food including where relevant prey species. It was *decided* that this question should be included as an optional question within the Myanmar METT.



Climate issues: Climate change is an issue that has risen in importance since the original METT was developed over 15 years ago. Myanmar is vulnerable to a range of climate impacts and it is advisable to start thinking about how these will likely impact protected areas and how they can be addressed by protected area management, e.g. climate adaptation. Examples from Myanmar were provided in relation to turtle nesting.

Protected areas also have a role in climate mitigation – through both carbon storage and capture (sequestration). A new question has been designed to capture this information. It was noted that forest restoration is a good example of protected areas increasing their role in carbon capture and thus helping mitigate climate change. In Myanmar peatlands are also strictly conserved in some protected areas, but their role carbon capture has not so far been considered.



Next steps with the Myanmar METT

Sue led a discussion about issues that might be missing from the METT. Principle of those from the discussion on the first day is security of protected area staff. A quick consultation with participants did not identify further issues.

Staff security: A draft question on security of staff has been prepared and participants were asked if they felt this was suitable and whether it should be added to the METT. This needs to be separated from the threats assessment (e.g. if there are parts of the protected area that are too dangerous for staff to enter); the question addresses development and implementation of security for staff. It was *decided* to add “good communications” to the draft text of this question and that it should be included in the METT (in fact should probably be added generally to the text of the METT).



Final day: Use of PAME and ways forward

The final morning of the workshop provided some background to the way in which data from the assessment might be used and discussed possible ways forward

The Global Database on Protected Area Management Effectiveness – GD-PAME

Marine Deguignet introduced the World Database on Protected Areas and the work of the UN Environment World Conservation Monitoring Centre. The database lists over 235,000 protected areas in terrestrial, coastal and marine habitats. Data are received primarily from governments, analysed by WCMC and any clarifications requested. Each protected area has a unique identifier: the WDPA ID. Data are increasing in quality over time, particularly the number of sites that are providing detailed information on area and location: i.e. rather than just a point location having polygon data giving actual boundaries.

The data for Myanmar were also presented. A new version of the WDPA is updated on Protected Planet (<https://protectedplanet.net/>) every month, so it is important to receive updated information on protected areas.



The Global Database on Protected Area Management Effectiveness (GD-PAME) was also introduced, currently recording information on the existence and date of a PAME, along with details of who

undertook the assessment. Myanmar already has some assessments and the assessments completed this week will now be entered into the system.

A major role for WCMC is in analysis and communication of results, through initiatives such as the periodic *Protected Planet* reports and related publication, including country-specific analyses. This work goes along with considerable capacity building to help countries to improve their data provision.

How to use the results

Sue introduced some initial ideas about how the results of the PAME might be used in Myanmar, focusing on the following issues:

For each question, we will ask people to include information on the way forward, looking at how protected areas should respond to the analysis – in effect an action plan for the protected area to address any shortcoming identified by the METT analysis. On the Excel, text written on the “way forward” in the boxes will automatically transfer to the column and provide a summary of actions. This is an action plan in response to the METT, with a timeframe, who is going to carry out the action, likely partners, funding needs etc.

It was pointed out that staff changes mean that different people will likely be filling out the METT in the future; the precisely-worded multiple choice questions attempt to reduce variation in interpretation between assessments.

Once completed, the analysis has a number of uses, for instance:

- Protected area level action plans
 - ✓ Adaptive management
 - ✓ Feeding into budgeting
 - ✓ Annual work plans
 - ✓ Management plan development or revision
 - ✓ Provide baseline data for a range of reporting purposes
- Protected area system level
 - ✓ Recommendations for system level actions developed from overall results for all protected areas – by looking at all protected areas common issues can be identified and responses identified examples of use in other countries were given: Korea, Colombia, Bhutan and Australia

- Other uses
 - ✓ Link to developing *State of the Parks* report using the results of the METT as a baseline
 - ✓ Provide basic data results into the Global Database on Protected Area Management Effectiveness (GD-PAME) housed at the UNEP World Conservation Monitoring Centre
 - ✓ Use the results in regular reporting to the Convention on Biological Diversity
- Longer term aims
 - ✓ Develop further indicators and monitoring for outcome assessment



Preliminary results

Marc gave a very initial summary of results from the METT carried out during the week. It should be noted that all participants are being asked to take their results back to their protected areas to discuss the results with site staff – and the results reported here may change once this data is refined and reviewed.

The **threat** assessment provides a huge amount of information (see figures 1 and 2 overleaf). Although there are many threats to protected areas in Myanmar, the level of threat is overall reasonably low. The commonest threats (extent) in protected areas related to housing and settlement, cultivation (agriculture and non-timber forest products), but these threats were not assessed as having a high impact. Collection of terrestrial plants and hunting were widespread and of a higher level. The highest threats in terms of severity were housing and settlement and shifting cultivation.

A spread sheet combining the extent and severity has been produced and provided to NWCD – but is too large a file to include here.

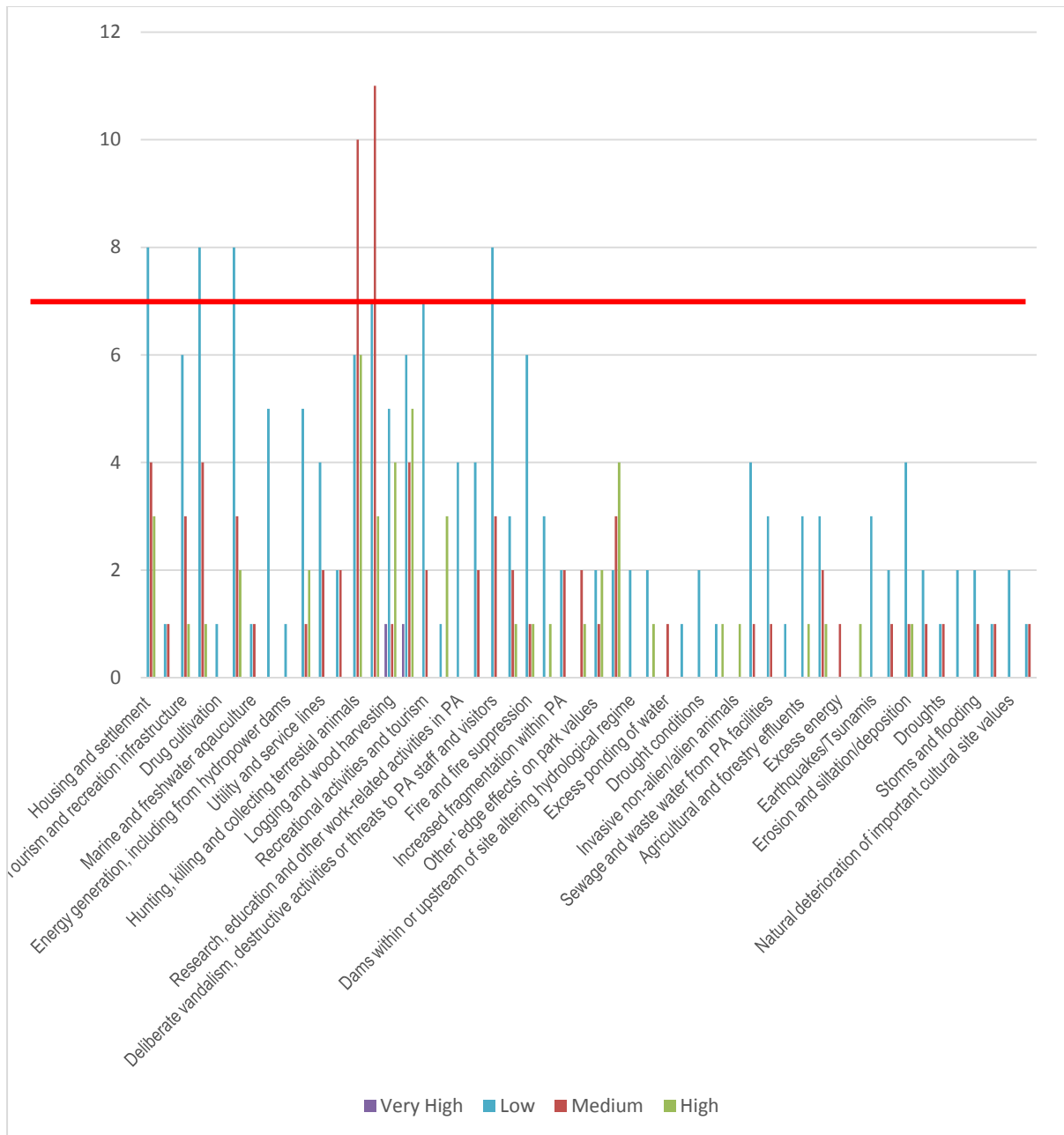


Figure 1: Cumulative preliminary results of the assessment of the extent of threats.

Key:

Very High: The threat is likely to be widespread or pervasive in its scope and affect the value throughout the value's occurrences at the site.

High: The threat is likely to be widespread in its scope and affect the value at many of its locations at the site.

Medium: The threat is likely to be localized in its scope and affect the value at some of the target's locations at the site.

Low: The threat is likely to be very localized in its scope and affect the value at a limited portion of the value's location at the site.

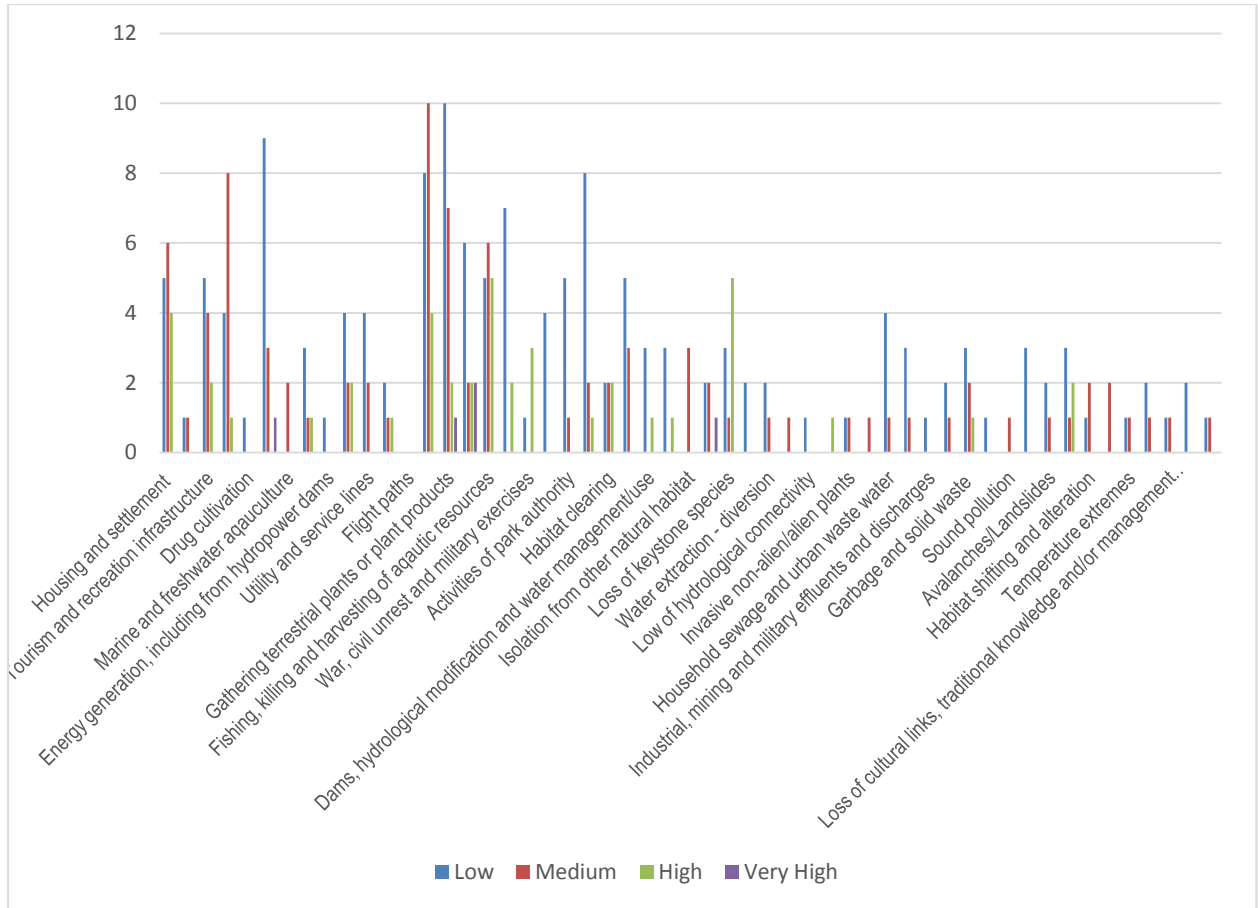


Figure 2: Cumulative preliminary results of the assessment of the severity of threats

Key:

Very High: The threat is likely to destroy or eliminate the value over some portion of the value's occurrence at the site.

High: The threat is likely to seriously degrade the value over some portion of the value's occurrence at the site.

Medium: The threat is likely to moderately degrade the value over some portion of the value's occurrence at the site.

Low: The threat is likely to only slightly impair the value over some portion of the value's occurrence at the site.

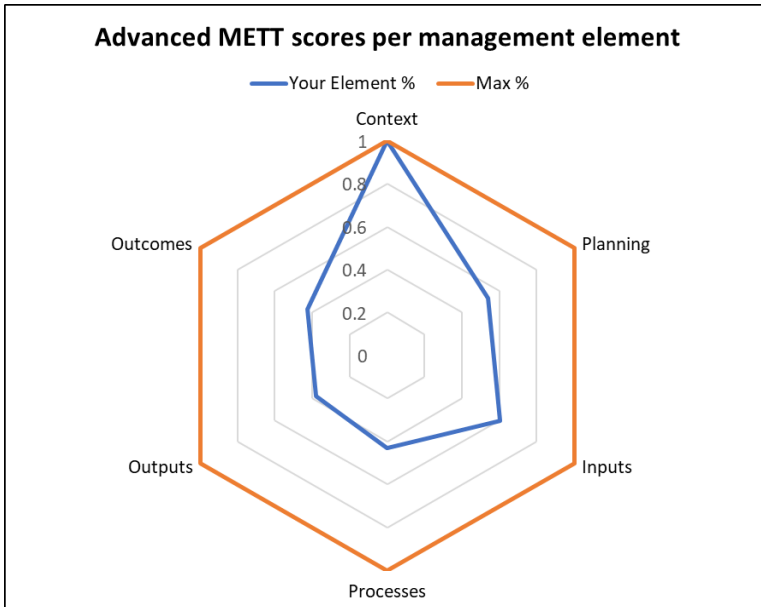


Figure 3: Overall preliminary results from all the sites taking part in the METT training (presented a percentage of 100% of answers)

The overall results from all the multiple choice question and answers for all the sites reported against the IUCN WCPA PAME Framework are presented in figure 3. The strongest feature of management relates to context, although note there is only one question on context (the rest of the context information is in the datasheets and the threat assessment). Processes outputs and outcomes are the weakest elements of management.

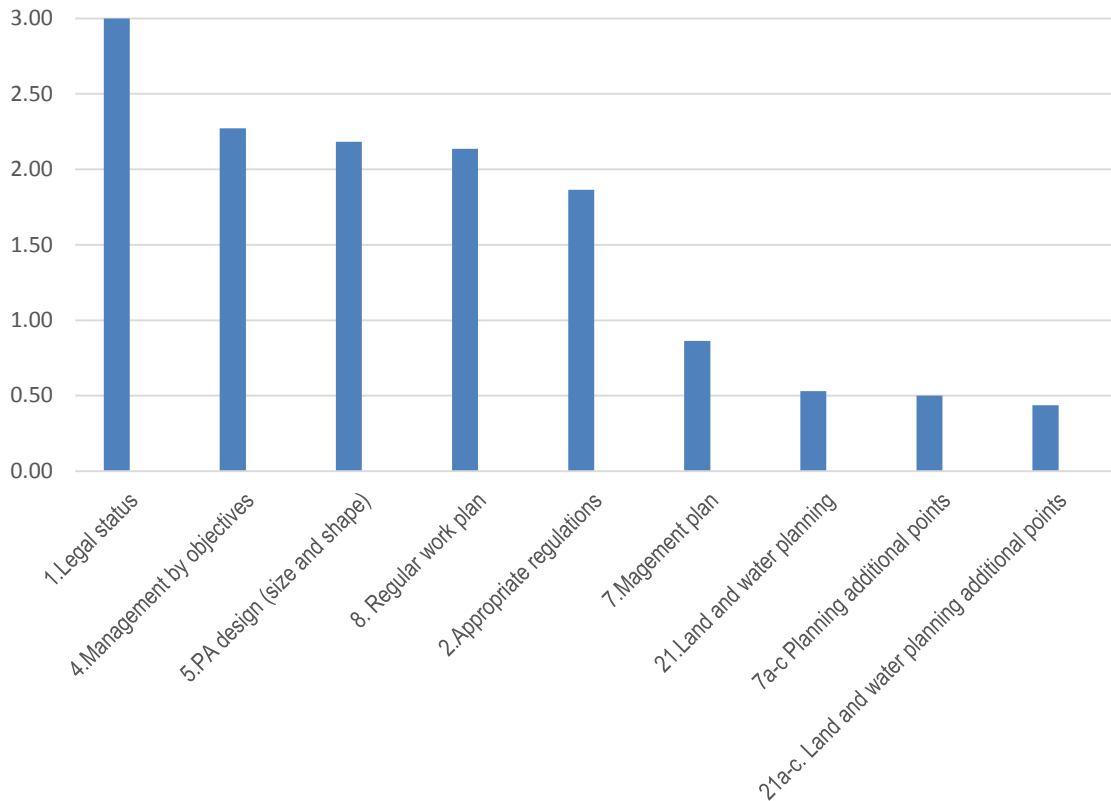


Figure 4: Cumulative context and planning scores

In terms of **context and planning** (Figure 4) the foundational issues for good management are in place (legal status, management focused on clear objectives, design of protected areas, regular work plans and appropriate regulations). Management planning is weaker but reflects the current situation where management plans are being developed across sites in Myanmar. Weaker issues were related to more complex elements of planning including ensuring land and water use planning outside the protected area reflects protected area objectives and issues related to planning best practices (e.g. adequate opportunity for key stakeholders to engage in planning. planning review and whether the results of monitoring, research and evaluation are routinely incorporated into planning).

Inputs (figure 5) were consistent across the protected areas, reflecting security of budgets and long term support from a range of donors and NGOs. It is also a reflection of how budgeting is done in Myanmar. Each year a work plan and budget are submitted to headquarters. These budgets are secured, but tend to cover only basic management. It was stressed (and guidance added to the final METT) that this question should be answered in terms of the full budgetary requirements to fulfil the management plan. The only lower scored question related to fees – as there are only now being introduced to sites this question at present only related to 2-3 sites. The greatest gaps were in having sufficient equipment and staff numbers.

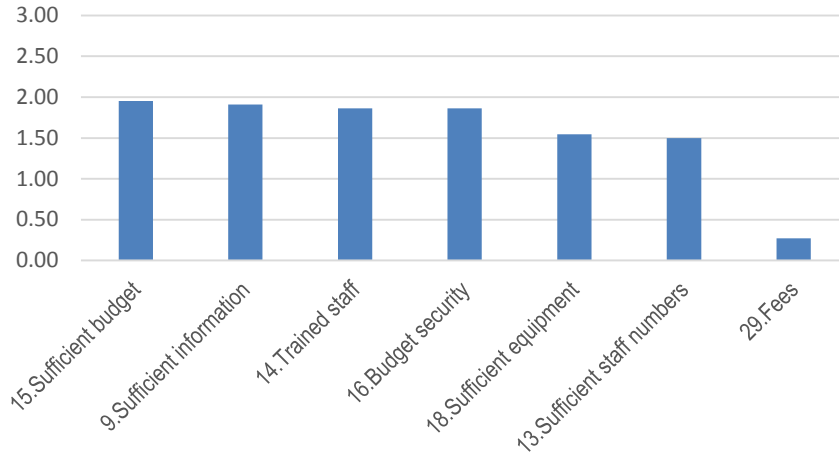


Figure 5: Cumulative inputs scores

Processes (figure 6) show major weaknesses in relation to community involvement in management and working with other stakeholders. The tourism question scores reflect only a few sites have major tourism activities and the additional question on climate adaptation is a new consideration for most protected areas and so far few areas have focussed on this issue.

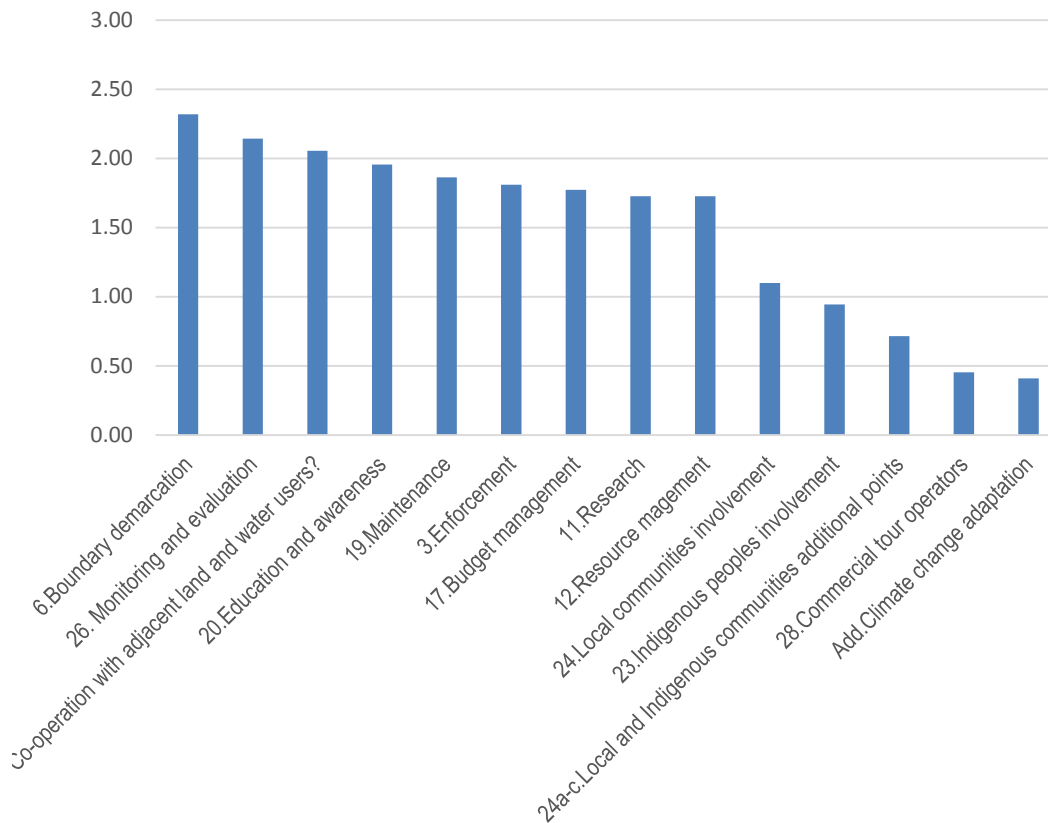


Figure 6: Cumulative process scores

In terms of outputs and outcomes (figure 7) none of the responses scored above 2 (which would generally be considered as sound management) but several are moving close to this level. On these issues, as with all results, it is important to look at individual protected areas results to highlight areas which are doing well and those which need significant inputs. The lowest scoring output/outcome indicator relates to tourism, which reflects the relatively low level of protected area visitation in Myanmar. Condition of values is probably the most important indicator. The results for this question should be reviewed across the system of protected areas and those sites scoring this question low will need to be reviewed to see why the values for which the site was designated are not being conserved.

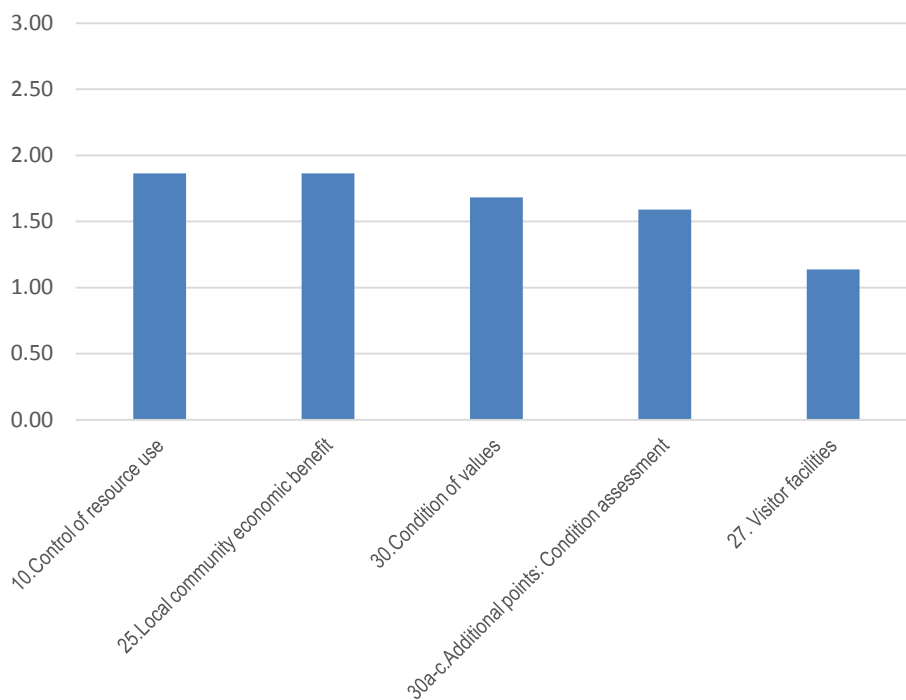


Figure 7: Cumulative outputs and outcomes scores

Suggested next steps

Nigel discussed some suggested next steps following the workshop. These included:

1. Organise a meeting in each protected area with managers and staff to explain the process, review the METT and the results of the assessment
2. Set a deadline for sending finalised “My METTs” to NWCD-MOECAF – agreed at one month from the end of the workshop
3. Identify one or two staff members at NWCD-MOECAF to :
 - a. Coordinate collecting final METT data
 - b. Review data and make any corrections
 - c. Translate additional questions
 - d. Report back on data
 - e. Coordinate adaptive management based on METT results
4. Potentially develop a wider review process with local experts/NGOs
5. Potentially develop a report on PAME for Myanmar based on the results: *A State of the Parks Report*
6. Develop a strategy for institutionalisation of My METT within the country on a regular basis (say every 2-3 years)
7. Consider developing an online tool. However it was suggested that language issues would make this difficult. However a Google drive or Dropbox facility could be used to collect information and share results.
8. The workshop facilitators will finalise the Excel version of “My METT” highlighting additional guidance and minor changes to the assessment made during the workshop
9. The facilitators will also send out the draft workshop report as soon as possible after the workshop has closed.
10. IUCN will send a letter to the DG of NWCD-MOECAF requesting that this work is followed up and the additional step outlined above are acted upon.

Participant list

Name	Position	Institution/Organization
U San Lwin Oo	Park Warden	Pidaung Wildlife Sanctuary
Daw Lay Lay Khine	Park Warden	Minsonetaung Wildlife Sanctuary
U Min Khine Oo	Park Warden	Panlaung-Pyadalin Cave Wildlife Sanctuary
U Vanlal Enga	Park Warden	Shwe-U- Daung Wildlife Sanctuary
U Aung Myat Soe	Park Warden	Kyeikhteeyo Wildlife Sanctuary
U San Win	Park Warden	Rakhine Yoma Elephant Range Wildlife Sanctuary
U Myint Hlaing	Staff Officer	North Zarmani Wildlife Sanctuary
U Thein Lwin	Staff Officer	Shwesettaw Wildlife Sanctuary
U Aung Myint Myat	Staff Officer	Tanintharyi Nature Reserve
U Sai Wanna Kyi	Range Officer	Moeyungyi Wildlife Sanctuary
U San Htun	Range Officer	Namataung National Park
U Nyunt Hlaing	Range Officer	Hukaung Valley Wildlife Sanctuary
U Win Zaw Lun	Range Officer	Chatthin Wildlife Sanctuary
U Zaw Naing Htun	Range Officer	Khakaborazi National Park
U Tin Win	Range Officer	Phonekanrazi Wildlife Sanctuary
U Thant Zin Aung	Range Officer	Popa Mountain Park
U Wai Phyo Thu	Range Officer	Alaungdaw Kathapa National Park
U Myint Thein	Range Officer	Htamanthi Wildlife Sanctuary
U Kyaw Zin Htun	Ranger	Inndawgyi Wildlife Sanctuary
U Kyaw Kyaw Naing	Ranger	Meinmahla Kyun Wildlife Sanctuary
Daw L. K. C. Yun	Ranger	Innlay Lake Wildlife Sanctuary
U Htun Zaw Linn	Deputy Ranger	Lampi Marine National Park