

Assessment Tools for Protected Areas

Recommended management effectiveness, social, governance and equity tools for WWF in the Miombo ecoregion

Prepared by UNEP-WCMC for the Luc Hoffmann Institute
Authors: Nanna Granlie Vansteelant and Neil D. Burgess



for a living planet[®]



Luc Hoffmann
Institute



UNEP



WCMC

Contents

2. Assessing Protected Area Management Effectiveness
 - 2.1. Management Effectiveness Tracking Tool (METT)
 - 1.2. Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM)
 - 1.3. The IUCN Conservation Outlook Assessments
3. Assessing Impacts of Protected Areas on Social Dimensions
 - 3.1. Social Assessment for Protected Areas (SAPA)
4. Assessing Equity and Governance
 - 4.1. Best Practice Protected Area Guidelines Series No. 20
5. Other Tools Available to Assess Protected Areas
6. Conclusion and Recommendations

1. Introduction

Conserving nature is crucial for human survival. Nature has cultural and spiritual values and provides humanity with ecosystem services, including food, water and medicine, along with more intangible services such as nutrient and carbon cycling. Protected areas are established with specific goals relating to the conservation of nature, or for providing ecosystem services or sustaining cultural values. It has been shown in various scientific and technical analyses that globally, protected areas are able to conserve some of these services and values and continue to supply them to humanity.

The ultimate success of protected areas as a tool for conservation is managed in terms of their delivery of outcomes (results) for biodiversity and humanity.

Assessing the management effectiveness of protected areas helps to elucidate how well the activities carried out contribute to meeting goals. Assessments are also very beneficial for protected area funders and help to increase accountability, good business and transparency in reporting. Management effectiveness assessments are mainly structured around the IUCN World Commission on

Protected Areas (IUCN-WCPA) Framework first published in 2000¹. It includes evaluating the context, the planning phase, inputs, the management process, outputs and outcomes (see Figure 1).

The impact of protected areas on the people living nearby is an important factor in determining its effectiveness and sustainability. A community that relies on utilising natural resources, and has managed this utilisation in the past, will not support their exclusion from a protected area without some form of compensation. If managers or stakeholders connected to the protected area receive economic gains, e.g. from tourism, from which the local community is excluded, the effectiveness of the protected area may be undermined due to a lack of local support. These issues underline the importance of focusing on social impact assessments, good governance and equitable management of protected areas. Such assessments are able to enhance the potential for multiple benefits to communities surrounding protected areas. Due to the close interlinkages between the social and ecological systems in the Miombo ecoregion, assessing the social impact of protected areas, and aspects of their governance and equity², is of utmost importance. Alongside management effectiveness assessments, these assessments play a key role in understanding the effectiveness of protected areas and help secure their sustainability in the future. By adapting management plans to incorporate recommendations developed following assessments, protected areas can be improved and have the potential to maintain their values.

The latest development of an overall protected area monitoring scheme is the IUCN Green List of Protected and Conserved Areas (GLPCA) Programme. This aims to “encourage, achieve and promote effective, equitable and successful protected areas in all partner countries and jurisdictions” using a Global Standard for management quality. By providing an international benchmark for quality, including indicators for “good governance, sound design and planning, effective management, and successful conservation outcomes” the programme aims to encourage managers to assess and improve their work. If protected areas are able to routinely assess management effectiveness, social impacts, governance and equity, this can potentially help protected areas achieve an internationally recognised seal of approval within the Green List. However, this process has only just started and it is too soon to determine if the Green List Standard will replace the other, more specific, protected area management tools that have been developed over the past two decades.

Given the evolving goals of protected areas and the need to assess their management effectiveness, as well as the social impact and the role of governance and equity in them, this review outlines some key assessment tools.

The sections below provide some background information on the type of assessment, describe relevant tools for protected area assessment, and provide a summary of the important lessons learned that should be taken in to consideration when selecting a tool for use. This report does not describe all

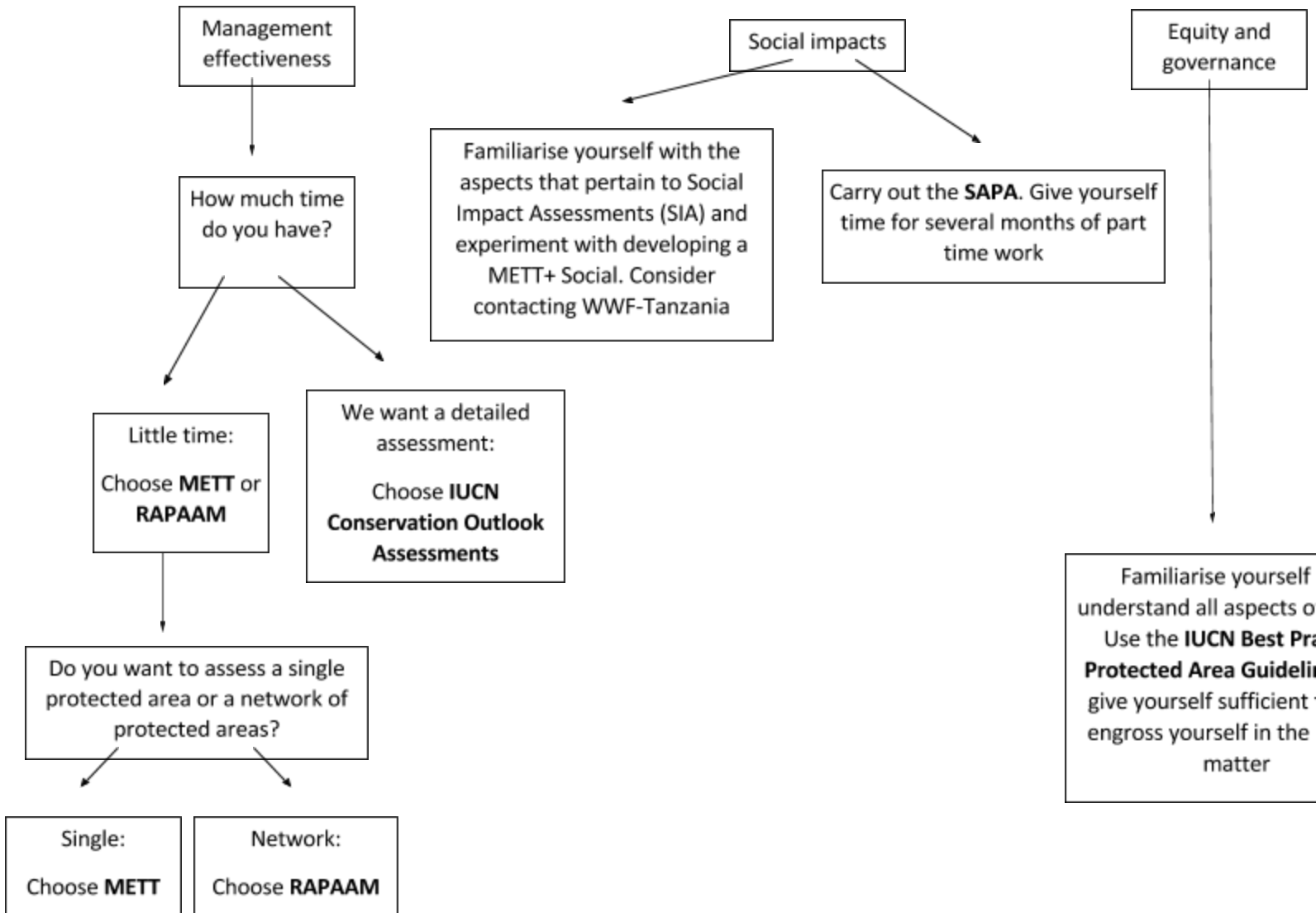
¹ Hockings, M., Stolton, S., Leverington, F., Dudley, N. & Courrau, J. (2006). *Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas*. 2nd edition. IUCN, Gland, Switzerland and Cambridge, UK. xiv + 105 pp.

² Assessments of governance and equity include considering all aspects of governance types as defined by IUCN, i.e. national/regional governments, indigenous peoples and local communities, private governance and shared governance (combinations of all three), and understanding the dimensions of equity that affect a protected area, i.e. understanding the processes behind decision-making, the distribution of costs, benefits and risks, recognising all stakeholders and considering the context or pre-existing political, social and economic conditions

existing protected area assessment tools, but rather describes the basics of the most commonly applied (and recommended) methods and provides links to the tool manuals where further detail can be found. All selected tools provide frameworks for assessments and encourage users to adapt and expand the tools to include context specific assessment factors.

Consider going through the decision tree on the following page to select what aspects and which tools you would like to assess. Recognise that reading the entirety of this report will give you the best holistic understanding of assessments tools for protected areas.

What do you want to assess?



2. Assessing Protected Area Management Effectiveness

Protected Area Management Effectiveness (PAME) has been assessed using a variety of methods since the mid-1990s³. The assessment methodologies have been developed to a) improve information sharing and adaptive management, b) identify management needs and allocate resources accordingly, c) improve reporting and d) increase community awareness of protected areas³. Methodologies are designed to highlight management issues important for biodiversity conservation and therefore have the potential to enhance the impact of protected areas. Out of nine studies included in a review of peer-reviewed literature, five found a positive relationship between PAME scores and biodiversity outcomes, which suggests that measuring, and improving, management quality is an important aspect of conservation management³.

In general, PAME assessments evaluate the management elements of context, planning, inputs, processes, outputs and outcomes, as defined by the IUCN-WCPA Framework. As of 2015, 95 methods were recorded in the Global Database for Protected Area Management Effectiveness (GD-PAME managed at UNEP-WCMC): mostly these are protected area managers self-assessments methods measuring progress toward specific management standards, with a few questions relating to biological and/or social outcomes³.

When selecting a tool for assessment of protected area management effectiveness, several considerations need to be made. These might include budget, staff, time and what sort of assessment needs to be carried out. It is important to fully review and understand available tools in order to make the best selection. This will help to clarify what training needs might be involved, how tools can be adapted to improve applicability in a given protected area, how long assessments will take, the scope and scale of an assessment, how results can be verified etc.⁴. Realistic plans can then be made for the assessment process, which needs to include regular re-assessments that can analyse the impact of adapted management plans. The establishment of a working-group that ensures that assessments plans are executed can be recommended. The group might be construed of members from all relevant stakeholder groups, including management, field and NGO staff, and a member of the local community that can facilitate the inclusion of the local community in the assessment process to provide a holistic evaluation⁴. Once an in-depth understanding of available tools has been reached and a detailed assessment plan established, selecting the most adequate tool should be relatively straightforward.

The table below provides information on a selection of tools that can be used to assess management effectiveness in protected areas. We have used our experience of what is being broadly used and is working well to select these tools. We include a sample of two simple and one more complex tool, which are in common use in the WWF network. More information is provided on each tool in the following sections.

³ Coad, L., Leverington, F., Knights, K., Geldmann, J., Eassom, A., Kapos, V., Kingston, N., de Lima, M., Zamora, C., Cuadros, I., Nolte, C., Burgess, N. D. & Hockings, M. (2015). Measuring impact of protected area management interventions: current and future use of the Global Database of Protected Area Management Effectiveness. *Phil. Trans. R. Soc. B* 370: 20140281.

⁴ Stolton, S. & Dudley, N. (2016). *METT Handbook: a guide to using the Management Effectiveness Tracking Tool (METT)*, WWF-UK, Woking.

Table 1: Summary of tool attributes that can be used to select an appropriate tool for assessing management effectiveness

Tool	What information is collected?	What staff is required?	How long does the assessment take?	Link to tool manual
<u>Simple:</u> Management effectiveness tracking tool (METT)	Emphasis on planning, inputs and processes. Collects information on budget, staffing, principal PA values, objectives and threats	Managers and project staff	Less than one day – filling out a questionnaire	Link
<u>Simple:</u> Rapid Assessment and Prioritization of Protected Area Management (RAPPAM)	Broad-level assessment that compares PAs that together make a PA network or system. Collects information on context, planning, inputs, processes and outputs	Managers, agency/NGO staff, scientists	1 – 3 days in a workshop format	Link
<u>Complex:</u> IUCN Conservation Outlook Assessments	Assesses the values, threats and effectiveness of protection and management of identified values	Assessment coordinator, site assessors, consultants and experts	Sufficient time to collect current knowledge, assess, compile assessments and review externally	Link

2.1. Management Effectiveness Tracking Tool (METT)

The Management Effectiveness Tracking Tool (METT) has been used in over 2500 protected areas covering 4.2 million km² in 127 countries⁵. It was originally developed by the IUCN WCPA and was widely used to support the CBD Programme of Work on Protected Areas. The GEF also enhanced the tool's implementation when it was installed as a requirement for their financed operations, and WWF and the World Bank use the tool to report on many to all of their protected area projects.

The methodology is built around a scorecard questionnaire relating to the IUCN-WCPA Framework (see above), with particular focus on context, planning, inputs and processes. It monitors management effectiveness over time and allows stakeholders to identify needs, constraints and priority actions to improve the effectiveness of the protected area. The questionnaire contains 30 questions following a

⁵ Stolton, S. & Dudley, N. (2016). METT Handbook: a guide to using the Management Effectiveness Tracking Tool (METT), WWF-UK, Woking.

number of generic introductory questions. Answers are scored on a scale of 0-3 and the final score is given as a percentage of the possible score calculated. The full methodology can be downloaded here.

Countries and NGOs are able to adapt the survey to fit their needs. For example, an adaptation of the METT, the Conservation Assured Tiger Standard (CAITS), which can be applied for other large predators, has been implemented to set basic criteria or minimum standards for effective management of tiger conservation protected areas or reserves that are key to the tiger population. METT is also implemented for all freshwater protected areas and panda protected areas in China, annually in all national parks and some reserves in South Africa (SA-METT), and in Mongolia, an updated methodology specifically designed for protected areas in the country was approved in June 2016 to be implemented biannually. In the Philippines, the marine protected area Management Effectiveness Assessment Tool (MEAT) is commonly used by governmental, academic and NGO partners.

Important lessons have been learned in the implementation of METT over the years. Field staff who deal with the daily challenges of managing protected areas, have been found to be too negative and assign low scores, whereas senior management have a strategic viewpoint and score too high⁶. It is therefore recommended that a number of viewpoints are considered, discussed and that a consensus score is given⁷. Carrying out the METT facilitates capacity building of those undertaking the survey, if it is carried out under strict and consistent operating conditions⁶. Managers and staff have identified that the major benefits of assessing management effectiveness are during the process rather than final reporting⁸. Further best practices highlighted by WWF are outlined below:

- Ensure that the implementation process is fully planned and that the entire METT has been reviewed and understood. Consider capacity and training needs, adaptation, timing, scope and scale, verifications etc. Assign at least a full day for completing the first METT assessment
- Complete all questions and sections. Particularly the next steps section highlights needed actions. The use of quantitative data is very useful to support the assessment
- Adapt the METT so that it is relevant to a given protected area. The basic format should be maintained, but adding further questions can enhance applicability. There are versions of the METT that include social questions (WWF-Tanzania METT+ Social), questions to monitor the effects of climate change (PARCC available [here](#)) and biodiversity outcomes questions (GEF-6 Biodiversity Tracking Tool available for download [here](#))
- The assessments should be repeated and preferably be an integrated part of annual planning
- Include all relevant stakeholders when discussing answers to the survey questions
- Verify results

⁶ Carbutt, C. & Goodman, P.S. (2013). How objective are protected area management effectiveness assessments? A case study from the iSimangaliso Wetland Park, Koedoe 55(1), Art. #1110, 8 pages. <http://dx.doi.org/10.4102/koedoe.v55i1.1110>

⁷ Stolton, S. & Dudley, N. (2016). METT Handbook: a guide to using the Management Effectiveness Tracking Tool (METT), WWF-UK, Woking.

⁸ Hockings, M., Leverington, F. & Cook, C. (2015). Protected area management effectiveness, in G. L. Worboys, M. Lockwood, A. Kothari, S. Feary and I. Pulsford (eds) Protected Area Governance and Management, pp. 889–928, ANU Press, Canberra.

- Implement a plan of action to implement results – adapt the management regime and communicate results locally and globally

1.2. Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM)

The Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM) tool differs from the METT in that it is used to assess management effectiveness in a *system* or *network* of protected areas. It has been widely used to provide agencies with a country-wide overview of the effectiveness of protected area management, threats, vulnerabilities and degradation⁹. Like the METT, it can be used to prioritise resource allocation, raise awareness, build capacity and improve management, but with a system-wide focus.

The RAPPAM was designed by WWF in 2002 drawing on the IUCN-WCPA Framework. The methodology includes five steps:

- 1) Determining the scope of the assessment
- 2) Assessing existing information for each protected area
- 3) Administering the Rapid Assessment Questionnaire
- 4) Analysing the findings
- 5) Identifying next steps and recommendations

The methodology is carried out in an interactive workshop or series of workshops over three days, in which protected area managers, policy makers and other stakeholders participate fully in each of the steps. A full description of the methodology is available [here](#).

By 2015, the RAPPAM had been used in 2281 assessments in 40 countries in Europe, Africa, Latin America, the Caribbean and Asia¹⁰. The method is regularly used by the WWF-Russia office and has been used in the past by WWF Mozambique, WWF in Zambia and in other countries. It does not seem to be in wide use any longer, but remains a useful system wide protected area effectiveness tool for WWF to consider using. Important lessons learned, as described by Hockings et al. (2006)¹¹ include:

- Ensuring that the methodology is carried out by protected area management agencies, as these are the stakeholders that will ultimately implement recommendations to improve the system
- Implementation should be carried out in partnership with other organisations in the country or region to ensure a holistic approach

⁹ The Nature Conservancy (2015). RAPPAM: Rapid Assessment and Prioritisation of Protected Area Management Tool. Available online <https://www.conservationgateway.org/ExternalLinks/Pages/rappam-rapid-assessment-a.aspx>. Accessed 31 August 2016.

¹⁰ Coad, L., Leverington, F., Knights, K., Geldmann, J., Eassom, A., Kapos, V., Kingston, N., de Lima, M., Zamora, C., Cuadros, I., Nolte, C., Burgess, N. D. & Hockings, M. (2015). Measuring impact of protected area management interventions: current and future use of the Global Database of Protected Area Management Effectiveness. *Phil. Trans. R. Soc. B* 370: 20140281.

¹¹ Hockings, M., Stolton, S., Leverington, F., Dudley, N. & Courrau, J. (2006). *Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas*. 2nd edition. IUCN, Gland, Switzerland and Cambridge, UK. xiv + 105 pp.

- High quality RAPPAM results are best obtained when a large number of protected areas are included in the assessment. If the number is too large for the available resources, assessments can be divided according to regions or categories, e.g. IUCN categories
- An interactive workshop with managers, decision-makers, NGOs and other stakeholders will provide the best platform from which to carry out a RAPPAM assessment. These workshops not only help to ensure that all opinions are expressed in the assessment, but also build capacity and raise awareness on the value of effective management of protected areas
- Develop a “RAPPAM working group” that can clearly define and clarify objectives and scope and develop methodological adaptations relevant to the area
- Launch the results of the assessment in a public forum as this helps to raise the profile of the protected area network, raises awareness, generates funding and promotes governmental commitment to implementing recommendations
- Ensure that recommendations are clear, realistic, target-oriented and time-bound. Make sure that it is clear which parties are implementing recommendations to make sure that targets are met
- Carry out assessments every 4-5 years to track progress
- Include local communities in regional workshops as their opinion will help establish a holistic assessment

1.3. The IUCN Conservation Outlook Assessments

The IUCN Conservation Outlook Assessments methodology was developed in collaboration with an IUCN technical Advisory Group. Building on the IUCN-WCPA Framework, it uses experience and lessons learned from assessment frameworks developed for UNESCO World Heritage Sites and other relevant literature. The Conservation Outlook Assessments “involve assessing the current state and trend of values, the threats affecting those values and the effectiveness of protection and management in order to project the potential of a site to conserve its values over time”¹². Conservation issues, benefits, and active conservation projects and their needs are also identified in the assessments.

The tool is more time consuming and detailed than the METT, but does not involve a workshop setting like RAPPAM or necessitate new research or site visits. The assessments are coordinated by a single body in collaboration with a team of site assessors and consultants who are familiar with the site. The assessment is built up around 9 steps, with a worksheet for each step (see full methodology here):

- 1) Identifying and describing values using published documentation
- 2) Assessing current or potential threats using a checklist, collated to provide a rating
- 3) Assessing 14 standardised protection and management topics using five ratings
- 4) Assessing the current state and trend of values using five ratings

¹² IUCN (2012). IUCN Conservation Outlook Assessments – Guidelines for their application to natural World Heritage Sites Version 1.3. IUCN.

- 5) Assessing Conservation Outlook using steps 1-4 against five ratings
- 6) Summarising key conservation issues and prioritising needs
- 7) Understanding benefits including identifying whether these are of potential minor or major importance to communities inside and outside the site
- 8) Compiling information on active on-site conservation projects and project needs
- 9) Compiling references for future review

Finally, a category from “good” to “critical” Conservation Outlook is assigned to the site. An additional category of “data deficient” is assigned if available evidence is insufficient to draw conclusions.

The assessment is designed to be carried out in World Heritage conservation sites, to project their potential to conserve values over time. However, the steps can be applied to any site. The methodology describes the involvement of a multitude of stakeholders, including an assessment coordinator, site assessors, knowledge-holders that play a consultative role, expert reviewers and the Conservation Outlook Technical Advisory Panel (COTAP). Of utmost importance is to recognize that:

- The assessment needs to be effectively coordinated, preferably not by the protected area manager
- The actual assessment of the site needs to be carried out by a team of stakeholders that know the site well. This should involve the protected area manager
- A group of consultants, or “knowledge-holders” should provide inputs to the assessment. These consultants should also know the site well, but should not be involved in the daily management of it in order to reduce bias
- An external group should be assigned to review the assessment, to ensure its quality. These reviewers could be from the nearest academic institution
- Because the assessment does not involve site visits, it should not replace regular field-based monitoring and evaluation
- Make sure the assessment report is disseminated and widely shared to raise awareness about your protected area

3. Assessing Impacts of Protected Areas on Social Dimensions

Assessing the impact of protected areas on social dimensions, such as livelihoods and gender equity, involves considering the potential benefits and costs of a protected area on human wellbeing. Human wellbeing has been defined using three dimensions by White in 2009¹³: material, relational and subjective (see definitions adapted below). Wellbeing is not directly related to monetary value and it is therefore important to consider the relational and subjective dimensions¹⁴:

- **Material wellbeing:** physical requirements of life, such as income, wealth, assets, or physical health, and the ecosystem services provided by the physical environment
- **Relational wellbeing:** social interactions, collective actions, and the relationships involved in the generation and maintenance of social, political, and cultural identities
- **Subjective wellbeing:** cultural values, norms, and belief systems, notions of self, individual and shared hopes, fears, and aspirations; expressed levels of satisfaction or dissatisfaction, trust and confidence.

Social Impact Assessments (SIA) of projects have been carried out since the 1970s alongside Environmental Impact Assessments (EIA)¹⁵. Their primary task is to improve the management of social issues and achieve better outcomes for communities affected by a given project – in this case, a protected area. Focus is on enhancing the benefits of projects to impacted communities. Guidance documents, such as the International Association for Impact Assessments document from 2015 (available [here](#)), describes good practice guidelines for 26 tasks comprising SIA that are carried out in four phases. These guidelines are applicable across any sort of project, including those focused on development, infrastructure, industry or biodiversity conservation.

In 2003, the World Parks Congress recommended that “protected areas should strive to contribute to poverty reduction at the local level, and at the very minimum must not contribute to or exacerbate poverty”. In 2004, parties to the Convention on Biological Diversity (CBD) agreed a Programme of Work on Protected Areas (PoWPA) with one of the goals being to “assess the economic and socio-cultural costs, benefits and impacts arising from the establishment and maintenance of protected areas...”

Few tools have been developed that are able to simply and efficiently assess the impacts of protected areas on social dimensions. In 2014, it was suggested that “one of the logical ways to enhance the collection of governance and (especially) social data would be to augment the METT”¹⁶. As is, the METT tool provides a simple and efficient method in which to assess management effectiveness of protected areas (described in the section on METT above). WWF-Tanzania developed a METT+ Social, which remains unpublished, but includes questions relating to improvement in livelihood outcomes (e.g.

¹³ White, S. C. (2009). Analysing wellbeing. A framework for development practice. WeD Working Paper 44. www.welldev.gov.uk

¹⁴ Franks, P. & Small, R. (2016). Social Assessment for Protected Areas (SAPA). Methodology Manual for SAPA Facilitators. IIED, London.

¹⁵ Vanclay, F. (2015). Social Impact Assessment: Guidance for assessing and managing the social impacts of projects. International Association for Impact Assessment (IAIA), USA.

¹⁶ Burgess, N.D., Danks, F.S., Newham, R., Franks, P. & Roe, D. (2014). Towards Equitably Managed Protected Areas: A review of synergies between Protected Area Management Effectiveness and Social or Governance Assessment. IIED Discussion Paper. IIED, London.

income, employment, payment for environmental services) and gender balance in management. It thus addresses the material, relational and subjective dimensions of human wellbeing, albeit in a limited manner. Further development and implementation of METT+ Social may enhance the applicability of social impact assessments globally.

2.2. Social Assessment for Protected Areas (SAPA)

In response to the PoWPA, the Social Assessment for Protected Areas (SAPA) initiative was launched in 2008. By 2013, IIED, UNEP-WCMC, WCS and FFI developed a pilot SAPA methodology and tested it in Kenya, Uganda, Ethiopia, Gabon and Zambia. It presents a rapid, standardised and low cost approach for assessing the social impacts of protected areas¹⁷.

The SAPA explores the relationship between protected area management and governance, and aims to facilitate interlinkages. The full manual (available [here](#)) is divided in to four key elements:

- 10) The analytical framework: defines the three-dimensional approach to human wellbeing, as defined by White in 2009. The SAPA assesses social impact by looking at the positive and negative impacts associated with conservation and development activities
- 11) Research design: the design of the SAPA questions what impacts can be attributed to the protected area as opposed to other factors that affect wellbeing such as food prices or climate change. The method is designed to do so by defining the counterfactual situation as what community members believe it would be
- 12) Process: The SAPA process is divided in to four phases, the first three of which constitute the actual assessment carried out in 3-4 months of part time work. The final phase relates to putting the results of the assessment in to action
- 13) Methods: describes the six methods, including analyses, workshops and surveys that form the SAPA assessment.

The SAPA methodology is a chronological process that generates recommendations for actions in response to results. The work has mainly been carried out in Africa so far and has generated results that can lead to a reduction in the negative social impacts related to protected areas. Like the integration of a social aspect in the METT, to create METT+, recommendations are being on how to integrate SAPA elements into existing protected area management effectiveness tools.

¹⁷ Franks, P. & Small, R. (2016). Social Assessment for Protected Areas (SAPA). Methodology Manual for SAPA Facilitators. IIED, London.

4. Assessing Equity and Governance

Following the establishment of the CBD Aichi targets in 2010, social equity is beginning to play a central role in biodiversity conservation. Aichi target 11 refers directly to effective *and equitable* management of protected areas. The 2012 'Protected Planet Report'¹⁸ recommends that the term should be clarified to allow reporting against the Aichi Target 11. However, the term "equity" remains an ambiguous, socially-constructed term that is subjectively defined and perceptions of equitable management depend on the context and personal judgement of actors on what is considered 'equitable' or 'fair'¹⁹. New work with protected area and equity experts has allowed further progress on the issue of protected area management equity – and for the purpose of this report, equity will be defined using the equity principles of recognition, distribution and procedure²⁰ that have been elaborated and made applicable to protected areas by IIED and partners²¹:

- **Recognition:** accounting for stakeholder knowledge, norms and values. E.g. human rights, land tenure, non-discrimination
- **Distribution:** distribution of costs and benefits. E.g. benefit sharing, ensuring that benefits to current generations do not compromise benefits to future generations
- **Procedure:** inclusiveness of rules and decision-making. E.g. effective participation, accountability

These principles rely on enabling conditions, i.e. the political, social and economic conditions that influence actors' ability to participate and gain recognition and benefits by, for example, harmonising legal and customary laws and norms. Thus, equity falls within the prior section's discussion of social impact assessments, but goes beyond the consideration of human wellbeing. It accounts for the complexities involved in ensuring *equitable* wellbeing and how this is managed through good governance.

In an effort to assess how existing protected area effectiveness (PAME) tools cover the equity related indicators, Moreaux (2016)²² completed an analysis (available [here](#)) of equity indicators in three PAME tools against the equity principles developed by IIED and partners²³. This review showed that none of the PAME tools were especially good at covering equity issues, but that the METT and RAPPAM tools (described earlier) and the South American PROARCA/CAPPAS tool (see [here](#)) had the best coverage of equity indicators. However, this study also shows that none of these tools sufficiently cover all equity principles. There is an imbalance in favour of covering procedure and distribution dimensions of equity (as defined by IIED), particularly addressing effective participation and identification and sharing of costs and benefits. These issues have been favoured in the international agenda and are more

¹⁸ Bertzky, B., Corrigan, C., Kemsey, J., Kenney, S., Ravilious, C., Besançon, C., & Burgess, N. (2012). Protected Planet Report 2012. Gland, Switzerland and Cambridge, UK: IUCN and UNEP-WCMC.

¹⁹ Martin, A., Gross-Camp, N., Kebede, B. & McGuire, S. (2014). Measuring Effectiveness, Efficiency and Equity in an Experimental Payments for Ecosystem Services Trial. *Global Environmental Change* 28(1). Elsevier Ltd: 216-26.

²⁰ Pascual, U., Phelps, J., Garmendia, E., Brown, K., Corbera, E. & Martin, A. (2014). Social Equity Matters in Payments for Ecosystem Services. *BioScience*. doi:10.1093/biosci/biu146.

²¹ Franks, P. & Schreckenberg, K. (2016). Advancing equity in protected area conservation. IIED Briefing.

²² Moreaux, C. P. C. (2016). Towards tracking equitable management in protected areas under Aichi target 11: The potential role of existing management effectiveness tools. Master's Thesis, University of Copenhagen.

easily analysed than factors not addressed by the tools, such as non-discrimination and harmonisation of statutory and customary law. Taking account of equity was also noted to be undermined due to lacking consultation of communities, NGOs and researchers when assessing management effectiveness. Assessments are often carried out by protected area staff despite all tool manuals recommending to include all stakeholders in the assessment process. For successful and accurate assessments of equity and governance, focus on developing and using specific tools that assess these aspects separately from management effectiveness (the focus of METT and RAPPAM).

SAPA assesses the social impacts of protected areas and focuses on human wellbeing. It covers equity in its consideration of equitable distribution of benefits and impacts between local communities and stakeholders, thus ignoring the remaining equity principles: recognition, procedure and enabling conditions. However, like in the development of METT+ Social in Tanzania, the flexibility of these tools allows for equity to be added in adaptations of the assessments. WWF-Indonesia takes this approach when analysing governance and equity at the local and national level. Using IUCN Best Practice Protected Area Guidelines (described in detail below), they develop specific and local tools to study and identify counterfactuals. Specifically, governance models and participation and recognition of rights of indigenous and local peoples, are compared inside and outside protected areas. These studies are carried out alongside management effectiveness assessments.

2.3. Best Practice Protected Area Guidelines Series No. 20

The IUCN Best Practice Protected Area Guidelines Series No. 20 on Governance of Protected Areas²³ were developed to meet the protected area governance-related goals established in Aichi Target 11. These guidelines provide a framework from which to analyse governance, including historical, socio-cultural, legal and spatial elements²⁵. The framework is the third phase of the four-phase process described for assessing, evaluating and taking action on governance related issues in protected areas. It is presented in two formats, one for individual protected areas and another for a system of protected areas. It involves completing the following stages in a workshop setting (full manual is available [here](#) and annexes with dos and don'ts in recognising and supporting indigenous peoples and local communities (ICCAs), a group exercise and suggested indicators to monitor governance quality available [here](#)). Key issues to consider when assessing governance in protected areas are:

- Clarification of what system is being analysed, e.g. a country, region or biological feature
- Understanding the background of the system, its history, important stakeholders, current policy frameworks and governance types
- Defining the IUCN management category and governance type for each protected area in the system and positioning them within the IUCN Protected Areas Matrix (see manual). Examine the distribution of protected areas in the system
- Spatial analysis of governance types in protected areas, e.g. putting governance types on a map

²³ Borrini-Feyerabend, Dudley, G. N., Jaeger, T., Lassen, B., Pathak Broome, N., Phillips, A. & Sandwith, T. (2013). Governance of Protected Areas: From understanding to action. Best Practice Protected Area Guidelines Series No. 20, Gland, Switzerland: IUCN. xvi + 124pp.

- Mapping areas of particular importance (APIs) for biodiversity and ecosystem services and identifying areas that are effectively conserved. Overlay areas of cultural significance if applicable
- Apply governance type to the APIs and identify whether these are associated with broadly-accepted criteria for good and equitable governance.

Throughout the process, information needs to be accurately recorded and organised. Numerous outputs are produced, including user-friendly worksheets, which are used to report on the results of the assessment. Once it has been finalised, the results are collated in to a report with specific recommendations and plans to improve governance of the protected area or system.

The framework is comprehensive, requires careful planning and dedication of resources and time. It is not a simple assessment framework that provides quick results, but it is able to assess the four equity principles, analyse governance of protected areas or protected area systems and provide recommendations to improve current situations. WWF-Indonesia recommends following the framework fully to assess governance, but highlights that the best results are obtained through careful consideration of processes and partnerships.

5. Other Tools Available to Assess Protected Areas

The previous sections describe selected tools available to assess management effectiveness, social impact and governance and equity in protected areas. There are a large number of other tools available to assess these factors, as well as tools that evaluate factors including legislation and law enforcement, and provide guidance on how to develop effective plans and strategies for conserving protected areas using best practice methods. These tools, along with those presented in this report, focus on assessing the processes that impact protected areas and help highlight how to improve management and social outcomes. Tools can also be used to establish baselines, which then can be used to monitor biodiversity for conservation outcomes. A selection of tools not relating to management effectiveness, social impact and governance and equity in protected areas are presented in the table below:

Table 2: A selection of tools available to assess legislation and law enforcement, develop effective conservation strategies, carry out best practices in protected areas and establish baseline to monitor biodiversity for conservation outcomes

Tool	What does it do?	What is the basic methodology?	What staff is required?	Who uses the method?	Link
Protection Audit for Conservation Sites (PACS)	Assesses legislation, law enforcement measures, prosecutorial and judicial capacities, preventative interventions and other drivers of wildlife crime	Consultation workshops followed by data interpretation and report	Government, PA managers, NGO (WWF focal point)	WWF-Asia	Link
Spatial Monitoring and Reporting Tool (SMART)	Assesses effectiveness of wildlife law enforcement patrols and site-based conservation activities	Suit of best practices that help the user adapt the tool for their purposes	Site-based staff	WWF-DRC, WWF-Asia, WWF-Madagascar	Link
Conservation Action Planning (CAP)	Helps conservation teams develop focused strategies and measures of success	Defining conservation targets, identify and rate threats, allocate conservation status, apply finding to adaptive management	Project team	WWF-Ecuador	Link
Valued Conservation Area (VCA)	A collection of best practice guidelines for conservation area managers	Providing information and guidelines for conservation area managers	-	WWF-Australia	Link
WWF Standards of Conservation Project and Programme Management (PPMS)	Describes the standards of practice for designing, implementing and monitoring conservation projects and programmes in the WWF network. Helps projects to practice adaptive management	Follow the 5 step Programme Cycle or use the WWF software tool Miradi	WWF project planners	WWF	Link

WWF Protected Areas Benefits Assessment Tool (PA-BAT)	Builds and gathers baseline information on the overall benefits from protected areas based on the best available knowledge	Uses a set of two datasheets to provide background information and an overview of the basic benefits	Protected area managers and authorities	Field tested in Malaysia and Turkey, used by WWF-International	Link
---	--	--	---	--	------

6. Conclusion and Recommendations

This report has provided basic information on a selection of tools that can be used to measure management effectiveness, social impact and governance and equity in protected areas in the Miombo ecoregion and beyond. It provides background information, general guidance and outlines important lessons learned in the application of these tools. This review does not provide detailed reviews of each tool, but instead provides summary information for WWF staff and protected area managers, and presents links to manuals that can be used to complete assessments of protected areas.

Assessing protected areas not only helps to elucidate the effectiveness of actions in meeting protected area goals, but also helps to enhance the provision of ecological, socio-economic, cultural and spiritual benefits. These assessments build capacity and help raise awareness on the importance of protected areas. In turn, they may promote a sense of local ownership and pride, which enhances sustainability.

Important lessons learned, particularly in the widely applied management effectiveness tools, have been outlined in this review. Common for all tools is the importance of carefully planning the assessment process. This includes considering training and capacity-building needs, budget, timing and scope. It also involves tracking down all relevant stakeholders: protected area managers, field staff, scientists and NGO staff, and most importantly, local communities and indigenous peoples. This will increase the potential of completing a holistic, realistic and un-biased assessment from which management plans can be adapted and implemented. Many of the tools described in this review are designed to be applicable to all protected areas around the globe. Therefore, to improve the accuracy of the assessments and applicability of improved management plans, the tools need to be adapted to suit local conditions. This might involve adding site-specific questions, or elaborating worksheet or survey questions, to improve understanding.

The establishment of a core working-group that plans, executes and evaluates the assessment process may be beneficial. This group needs to ensure that the assessment process is repeated in order to monitor how applied changes to management affects the protected area. Results and reports need to be disseminated to potential funders and to the public to help raise awareness.

Assessments of management effectiveness, social impact, governance and equity of protected areas need to be a central component of the plan for any given protected area. Assessing equity and governance is particularly challenging due to ambiguous and subjective definitions of equitable management and good governance. Few straightforward and easy-to-use numerical measures that facilitate tracking of these aspects over time exist, and therefore focus should be placed on understanding all dimensions of equity and governance in the context of the assessed protected area. In the Miombo ecoregion, assessments of management effectiveness, social impact, governance and equity of protected areas can help to maintain the balance between society and nature and help to document an areas' success, enhancing sustainability and securing long-term benefits for both biodiversity and society.