iied

Towards equitably managed protected areas

A review of synergies between Protected Area Management Effectiveness and social and governance assessment

Neil D. Burgess, Fiona S. Danks,
Rebecca Newham, Phil Franks and Dilys Roe

Discussion Paper
November 2014

Biodiversity

Keywords:
Protected area, social assessment, governance

iied

UNEP WCMC

About the authors

Neil Burgess* is Head of Science at UNEP-WCMC

Fiona Danks is Senior Programme Officer in the Science Programme at UNEP-WCMC

Rebecca Newham is a consultant working with the Science Programme at UNEP-WCMC

Phil Franks is a Senior Researcher in the Biodiversity Team at IIED and leads the Social Assessment of Protected Areas project

Dilys Roe is Principal Researcher in Biodiversity at IIED and leads the Biodiversity Team

*Corresponding author: Neil.Burgess@unep-wcmc.org

Acknowledgements

We would like to acknowledge the following individuals who provided expert insights into existing protected area assessment tools: Nina Bhola (UNEP-WCMC); Chris Sandbrook (University of Cambridge, Department of Geography/UNEP-WCMC); Jonas Geldmann (University of Copenhagen, Department of Biology); Marcelo de Lima (UNEP-WCMC); Stephen Woodley (IUCN); Brian MacSharry (UNEP-WCMC); Heather Bingham (UNEP-WCMC); Lauren Coad (University of Oxford); Fiona Leverington (IUCN WCPA); Isaac Malugu (WWF Tanzania); Jamison Irvin (UNDP); Jessie Mee (UNDP GEF); Marc Hockings (WCPA and University of Queensland); Sue Stolton (Equilibrium Consultants and IUCN WCPA); Grazia Borrini-Feyerabend (IUCN Commission on Environmental, Economic and Social Policy); Trevor Sandwith (IUCN Global Protected Areas Programme).

Produced by IIED's Natural Resources Group

The aim of the Natural Resources Group is to build partnerships, capacity and wise decision-making for fair and sustainable use of natural resources. Our priority in pursuing this purpose is on local control and management of natural resources and other ecosystems.

Partner organisations

WCMC (www.unep-wcmc.org) is the specialist biodiversity assessment arm of the United Nations Environment Programme (UNEP) based in Cambridge, UK. UNEP works to encourage sustainable development through sound environmental practices, and has an extensive portfolio of activities around biodiversity. To help deliver these, it collaborates with WCMC, a not-for-profit organization with a growing team of more than a hundred experts in the biodiversity and ecosystem services of marine, freshwater and terrestrial environments, together with social scientists, ecological modellers, economists, lawyers, GIS specialists, policy analysts and programmers. Working with partners worldwide, the Centre provides objective, scientifically rigorous products and services to help decision makers learn about the value of biodiversity and apply this knowledge.

Published by IIED, November 2014

Neil D. Burgess, Fiona S. Danks, Rebecca Newham, Phil Franks and Dilys Roe. 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.

http://pubs.iied.org/14647IIED

ISBN 978-1-78431-116-2

Printed on recycled paper with vegetable-based inks.

International Institute for Environment and Development
80-86 Gray's Inn Road, London WC1X 8NH, UK
Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
email: info@iied.org
www.iied.org

@iied
www.facebook.com/theIIED

Parties to the Convention on Biological Diversity (CBD) have agreed that by 2020 at least 17 per cent of terrestrial and inland water and 10 per cent of coastal and marine areas should be conserved through *"effectively and equitably managed, ecologically representative and well connected systems of Protected Areas and other effective area-based conservation measures".* The effectiveness of protected areas has been subject to measurement and assessment for the last decade and a wide range of Protected Area Management Effectiveness (PAME) tools and methods have been developed. However, there is no equivalent means of measuring progress towards the goal of equitable management. Is PAME enough? Should social and governance issues be better incorporated into existing PAME processes? Or do we need stand-alone additional assessments if we really are to get to grips with equity?

Contents

Summary

In 2010, Parties to the Convention on Biological Diversity (CBD) agreed a set of targets to be achieved by 2020. Aichi Target 11 reads "*By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas… are conserved through* ***effectively and equitably managed****, ecologically representative and well connected systems of Protected Areas and other effective area-based conservation measures…"* (emphasis added).

The effectiveness of protected areas (PAs) has been subject to measurement and assessment for the last decade with a wide range of Protected Area Management Effectiveness (PAME) tools and methods being developed. However, there is no equivalent means of measuring progress towards the goal of equitable management. Nevertheless, in recent years two related streams of work have attempted to develop frameworks and approaches for assessing the type and quality of *governance* of PAs and of their *social impacts*. This paper, prepared by the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC), with input from IIED, presents a preliminary analysis of the inclusion of social and governance considerations within the existing PAME tools. This work aims to determine the extent to which equity is already provided for in these protected area assessment tools and to determine the need for additional tools and approaches that can really help the aspirations articulated in Aichi Target 11 become a reality.

Management effectiveness tools

There are more than 40 tools for gathering data on the management effectiveness of protected areas. Amongst these, the most widely applied are: the Management Effectiveness Tracking Tool (METT), the Rapid Assessment and Prioritization of Protected Areas Management (RAPPAM) tool, the New South Wales 'State of Our Parks' (NSW-SOP) tool, the Programa Regional Ambiental para Centro América/ Central American Protected Areas System (PROARCA/ CAPAS) tool, and the BirdLife Important Bird Area (IBA) monitoring tool. These questionnaire-based tools vary in the extent to which they explore social and governance aspects of protected areas but in all cases are quite superficial in the way they address this issue.

Interviews with protected area experts confirmed the view that neither social or governance issues are adequately addressed in management effectiveness tools and that there is a need for more to be included – either within the existing tools, as add on 'modules' to the existing tools, or as specific additional tools.

Protected areas data

There is a need to store and use the data being gathered by PAME processes and other associated processes like social assessment and governance assessment. There are a number of uses of these data:

1) For the better management of the protected areas themselves.
2) For NGOs or funding agencies to assess the degree that their funding and support has made a measurable difference to the protected areas that are being targeted.
3) For individual countries and the global community to be able to track the achievement of Aichi Target 11, especially the elements that relate to "effective and equitable management".

The World Database on Protected Areas (WDPA) is the key global repository for protected areas data but this currently contains very little information on social and governance issues – beyond some recording of the governance type of each site. Over the past few years some of the disparate databases have started to come together within a single Global Database on PAME (GD-PAME), but again this system has been made to work for the main PAME tools and thus only reflects the same coverage of social issues that the tools do.

Conclusions: towards equitably managed protected areas

It is clear that despite the strong mandate from the CBD Aichi Target 11 on ensuing that protected areas are not just effectively but also equitably managed, there is relatively little information contained in the global protected area data systems that enable progress towards this goal to be tracked.

The available data gathering tools on protected areas have primarily focused on assessing the management quality of reserves with a lesser focus on the conservation outcomes and even less on social and governance outcomes.

Clearly for protected area stakeholders to be able to assess their progress towards achieving equitable management of the site with which they are concerned further enhancements of the tools to collect, analyse and store protected area data are required.

We propose a number of ways forward and invite your feedback on the options we outline.

1. Expand the METT: The simplest (and most regularly applied) of the PAME tools is the METT. As such, one of the logical ways to enhance the collection of governance and (especially) social data would be to augment the METT with further social and governance questions.
2. Improve the process: Most PAME tools rely on self-assessment by protected area managers. There are a number of ways this could be improved in order to generate more objective data. First it is important to ensure that all stakeholders have input to the process so that the results reflect the different opinions on management effectiveness and the social and governance outcomes in addition to the conservation outcomes. Second it is vital that all relevant fields including evidence/justification for scoring are completed properly otherwise the data will be not useful and potentially misleading.
3. Expand the range of tools commonly applied: Further use could be made of other existing tools that contain a larger assemblage of governance and social questions. Perhaps the most comprehensive of these is the “Enhancing our Heritage” tool for the World Heritage Convention and the associated Periodic Reporting Database for the same convention.
4. Specialist tools for specialist purposes: As the available questions on governance and social outcomes in the METT and elsewhere are regarded as, at best, weak and at worst misleading and prone to systematic bias in the answers received, rather than expanding the existing management effectiveness tools, it could be better to remove the governance and social questions altogether. This would allow management effectiveness tools to focus on protected area management quality – and potentially the biodiversity outcomes – while leaving other more specialised tools to be used for social and governance assessments.
5. A modular framework: Existing management effectiveness tools cover a limited range of issues within the wider scope of protected area management. A broad framework for PA management could cover a number of additional areas including biodiversity outcomes and financial sustainability as well as social and governance issues. Each of these could be developed as a module which collectively address the full suite of issues that are encountered in protected area management.

What do you think? What is the best option for ensuring the protected areas are not just effectively managed but also equitably managed?

Introduction

1

Scope and purpose of this paper

In 2010, Parties to the Convention on Biological Diversity (CBD) agreed a set of targets to be achieved by 2020. Aichi Target 11 reads:

> *"By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas… are conserved through effectively and equitably managed, ecologically representative and well connected systems of Protected Areas and other effective area-based conservation measures…"*

The effectiveness of protected areas (PAs) has been subject to measurement and assessment for the last decade with a wide range of Protected Area Management Effectiveness (PAME) tools and methods developed (Leverington, et al. 2010a). No equivalent means of assessing progress towards the equitable management element of Aichi Target 11 has been achieved. Nevertheless, in recent years two related streams of work have attempted to develop frameworks and approaches for assessing the type and quality of governance of PAs and of their social impacts. The quality of governance to a large extent determines the social costs and benefits (i.e. social impacts) of protected areas, and is therefore an essential element of equitable management. This report explores the relationship between the well-established process of PAME assessment and the more recent introductions of social assessment of protected areas (SAPA) and governance of protected areas.

The SAPA initiative has been jointly developed by IIED, UNEP-WCMC, World Commission on Protected Areas (WCPA) and Commission on Economic and Social Policy (CEESP) since 2008. Over the years it has evolved from an idea to a funded project which aims to develop a simple process – accessible to protected area managers and others who are not specialists in Impact Evaluation – for assessing social impacts in a way that allows tracking of progress towards Aichi Target 11. There may be a need to cross-validate the SAPA approach findings against these more rigorous Impact Evaluation approaches but this is not yet done as there are relatively few samples using the SAPA approach at present.

Recognising that PA managers are often stretched in terms of time, financial resources and capacity for conducting assessments, and that many are already routinely using PAME tools and methods, this paper is intended to review these existing approaches, to explore the extent to which they already address social and governance issues and where the critical gaps lie. Based on this review, the paper proposes a number of options for integrating PAME, SAPA and governance assessment in ways which reduce the burden on PA managers but at the same time generate the information that is needed to assess progress towards social goals and effective social safeguards in conservation, including achieving Aichi Target 11.

What are the social impacts of protected areas?

Since the late 1990s/early 2000s there has been a flurry of literature on the social impacts of protected areas. The older literature mainly documented their negative impacts on local livelihoods due to impoverishment and marginalization caused by displacement and reduced access to productive resources.[1] Around the same time, there was a general shift in international protected area policy from exclusionary approaches to management to ones that aim to create social benefits. These were initiated at the IUCN World Parks Congress (2003) which made a recommendation that protected areas should – at the very least – do no harm to poor people. In response to this recommendation the CBD COP7 (2004), established a Programme of Work on Protected Areas (PoWPA) including a core focus on governance, participation and benefit-sharing.

There is a growing number of studies that show a varied set of local impacts from protected areas. For example Naidoo et al. (2011) found that community based wildlife management schemes in Namibia have generated considerable livelihood and other social benefits for participating communities. Similar, generally positive results have been recorded for the Group Ranches of northern Kenya (Glew et al. 2010). This contrasts with a more recent report on the Wildlife Management Areas (WMAs) of Tanzania (WWF 2014), which illustrates that although some WMAs deliver significant livelihood and social benefits, others deliver no benefits at all.

Impacts of state-managed protected areas have also been studied using sophisticated analytical approaches over the last few years, building a body of evidence for positive livelihood benefits, largely from tourism revenues. In the first of these papers, Andam et al. (2010), working in Costa Rica and Thailand, started off with the negative finding that poverty rates in 2000 were, on average, higher near PAs – suggesting that PAs exacerbate poverty. However, the authors further went on to show that, after using matching methods to control for differences in baseline characteristics that affect both poverty and the location of PAs, the result was reversed and there were clear indications that PAs have alleviated poverty. In Costa Rica results suggested a ~10 per cent reduction in poverty due

[1] For example see Schmidt-Soltau (2003); Brockington and Igoe (2006); Agrawal and Redford (2006; 2009)

to income to communities from PAs. In Thailand the matched result showed that there was actually a ~30 per cent counterfactual reduction in poverty due to PAs. More positive social outcomes for protected areas have also been found in detailed, counterfactual based, studies in Bolivia (Canavire-Bacarreza and Hanauer 2013), Thailand (Simms 2010), Cambodia (Clements et al. 2014) and Costa Rica (Ferraro and Hanauer 2014). This literature provides a statistically rigorous counterpoint to other new, but less quantitative, socially orientated research which claims broadly negative impacts for protected areas in a number of countries (Holmes 2007; 2014a,b).

In terms of equity of impacts, a recent study in Africa, evaluated the social costs and benefits of creating a reserve in the East Usambara Mountains of Tanzania (Hall et al. 2014). This paper shows that wealthier members of the community were able to benefit from compensation payments made during the creation of the reserve, whereas poorer community members and women generally suffered and were made worse off at the end of the process than at the start. In this case, all men received compensation in comparison to only one-third of the women. The lower/middle wealth classes used most of their compensation on household necessities, home building and repair and were left without land (Rantala et al. 2013). The majority of respondents across affected villages considered themselves worse off after the reserve was gazetted. Specifically, only 4.8 per cent stated they were better off, and 10.5 per cent believed their state was the same.

Another study in the Bwindi Impenetrable National Park, Uganda, (Twinamatsiko et al. 2014) shows that although there are positive benefits across communities as a whole, these benefits may mask the status of some (often poorer) community members, while there are net benefits to others. In the case of Bwindi, the poorer farmers living on the edge of the park suffer from problems with baboons, monkeys and/or elephants coming out of the forest and destroying food and cash crops. For these farmers there is not much solace in the fact that, overall, Bwindi is a positive social impacts story.

In summary, in some countries established protected areas seem to be delivering positive livelihood benefits to local communities, in addition to global and national benefits. However, in other countries the costs of protected areas on local communities are higher than the benefits they receive. Considerably more research is required to fully determine whether, when, how often, and under what circumstances protected areas deliver positive (or negative) social benefits to surrounding communities and how net benefits (and net costs) are distributed within communities.

SAPA, governance assessment and PAME – how are they linked?

2

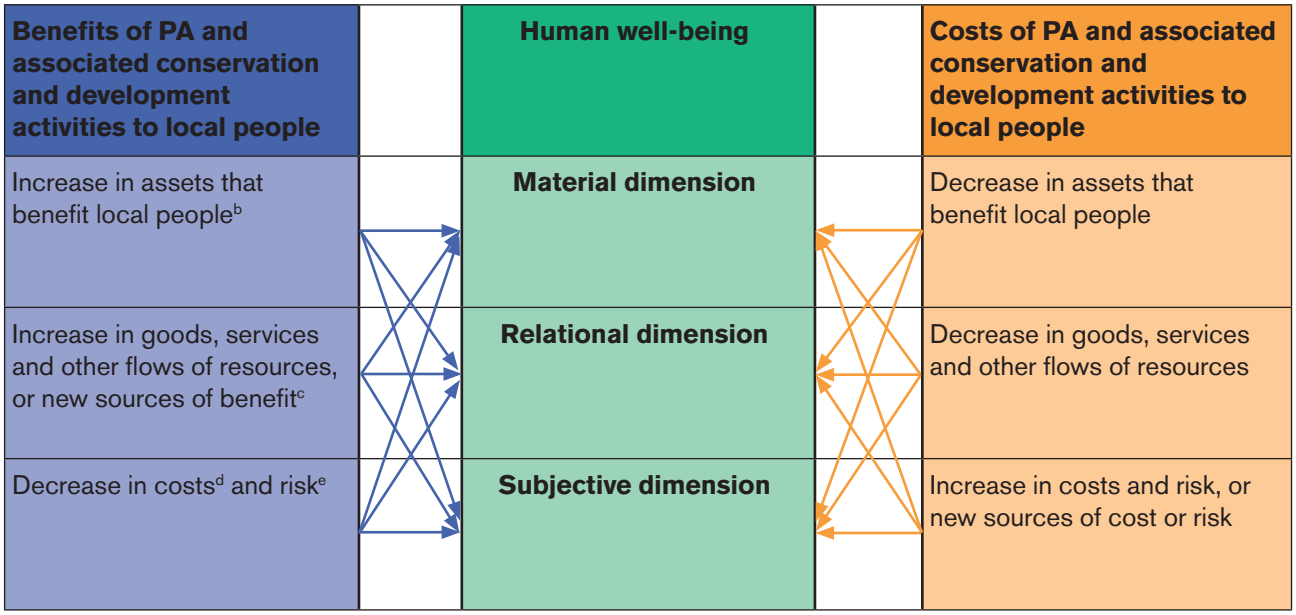
The SAPA methodology

The framework being developed for the social assessment of protected areas (Franks et al. in prep) has strong but not unexpected overlap with frameworks for understanding human well-being, and the impact of the costs and benefits of conservation on well-being (Figure 1).

The SAPA process is envisaged to contain a number of phases and steps, starting with preparation and then continuing through to defining the assessment questions and context, scoping and defining the indicators, undertaking the assessment, action planning, and communication of the results (Figure 2). These stages have been tested in several sites in Africa (Franks et al. in prep).

In a review commissioned for the SAPA Initiative, Shreckenberg et al (2010) reviewed a wide array of possible SAPA tools (Table 1). The 21 tools that were reviewed covered a great variety of approaches. Some of these have been widely applied and some have been applied to only a limited degree. The further development of the SAPA process has focused on a core set of tools that are being tested as a formal SAPA methodology at a series of pilot sites in developing countries. The current set of SAPA tools is based on focus group discussions, household surveys and other standard social science research methods.

Figure 1. SAPA analytical framework[a]



a Arrows are illustrative showing, in principle, that all types of benefit/cost can impact all dimensions of human well-being

b Natural, financial, physical, human, socio/political assets/capitals.

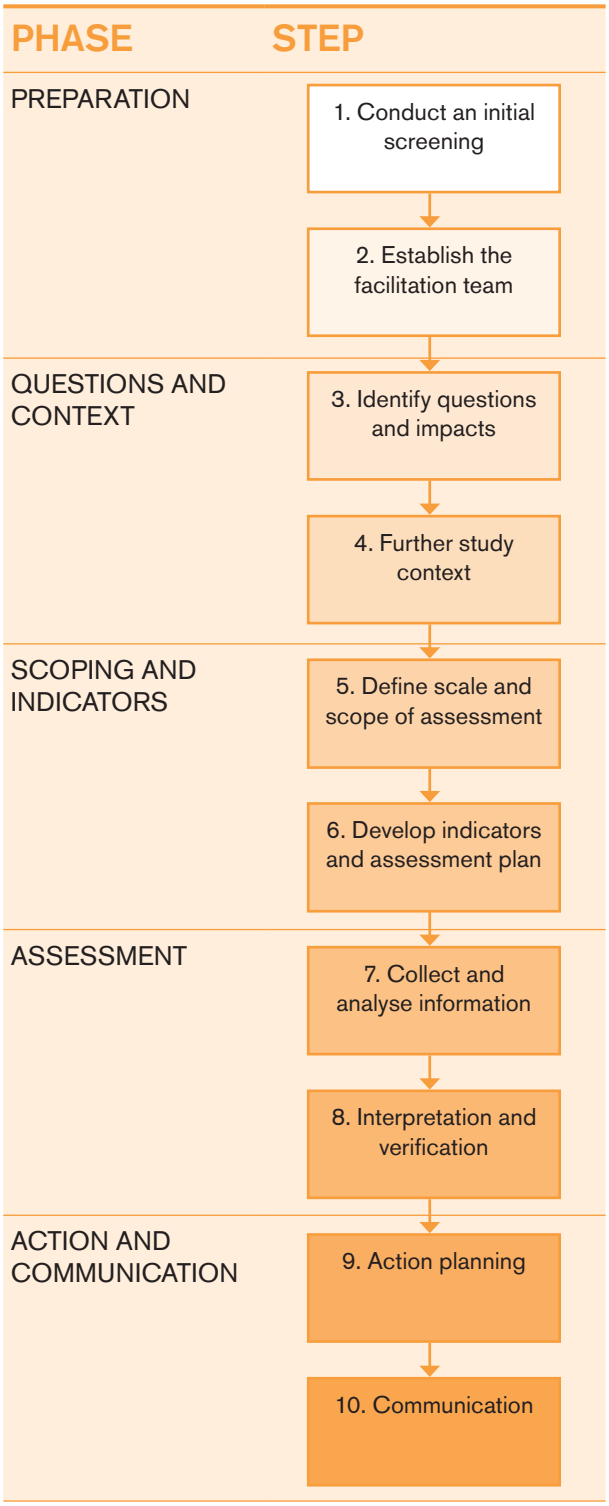
c Includes change in the flow of any goods and services or other resources from any source where the change in flow may be wholly or partially attributable to the PA, including, but not limited, changes in ecosystem services.

d Includes financial costs, transaction costs, opportunity costs and other non-financial costs, from any source where the change in flow of costs may be wholly or partially attributable to the PA.

e Includes a wide variety of risk factors whose significance may be affected by a PA, e.g. risk of negative impacts from climate change may be reduced by conservation activities.

Source: Borrini-Feyerabend et al. 2013

Figure 2. SAPA process



The governance assessment process and its links to SAPA

The IUCN Best Practice Guide on protected areas governance (Borrini-Feyerabend et al. 2013) looks at governance type (state, private, community, shared) and governance quality (fairness and rights, legitimacy and voice, direction, performance, accountability). It provides a step-wise assessment methodology that can be implemented on a site by site basis (Figure 3).

Some of the indicators that are suggested for use in the governance assessment process have a significant level of overlap with social assessment – in particular a whole set developed under the theme of "Safeguarding local livelihoods" including:

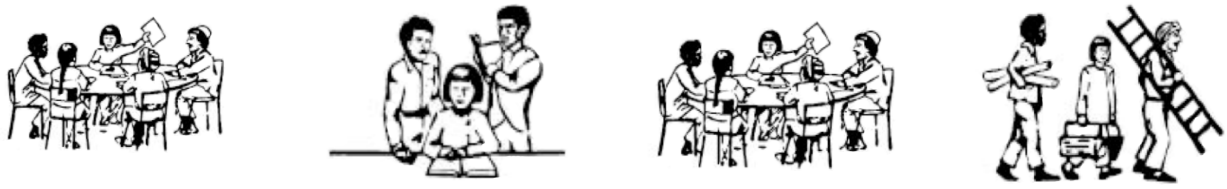
- extent and distribution of the social, cultural and economic impact on livelihoods (of establishing and managing protected areas
- number of initiatives with protected area-related support geared to enhance the livelihoods of local rights holders and stakeholders (e.g. subsidised tree-planting in buffer areas, jobs for local residents, training and credit for local income generation initiatives)
- trends in poverty and vulnerability related to the presence of protected areas
- extent of local in-migration or out-migration related to the presence of protected areas
- extent to which rights holders and stakeholders impacted by protected areas receive fair compensation (e.g. specific resource use quotas and licenses, concessions, permits, access and land use agreements, a proportion of protected area revenues).

Table 1. Social Assessment tools reviewed in Shreckenberg et al. (2010)

METHOD NAME	ACRONYM	PA SPECIFIC*
INDEX-BASED METHODS		
Basic Necessities Survey	BNS	No
Coping Strategies Index	CSI	No
Quantitative Participatory Assessment	QPA	No
TOOLS		
Participatory Economic Valuation	PEV	[Yes]
Landscape Outcomes Assessment Methodology	LOAM	No
Committee on Sustainability Assessment	COSA	No
Household Livelihood Security Assessment	HLSA	No
DETAILED METHODOLOGIES		
Parks and People	P&P	Yes
Participatory Impact Assessment	PIA	No
Protected Area – Benefit Assessment Tool	PA-BAT	Yes
Rapid Social Impact Assessment	RSIA	[Yes]
METHODOLOGIES FOR PA SYSTEMS		
Comparison Group Approach	CGA	[Yes]
Matched Method Approach	MMA	Yes
METHODOLOGIES WITH INTERESTING ELEMENTS		
Appreciative Inquiry	AI	No
Most Significant Change	MSC	No
Outcome Mapping	OM	No
Participatory Impact Pathways Analysis	PIPA	No
Poverty Forests Linkages Toolkit	PROFOR	No
Socio-Economic Assessment Toolbox	SEAT	No

*This column indicates whether the methods as reviewed were specific to protected areas ('Yes'), were reported from a protected area but could be used in non-protected areas ('[Yes]'), or were reported from non-protected areas ('No').

Figure 3. Steps in the assessment of governance in protected areas



Phase 1:
the Team plans the process

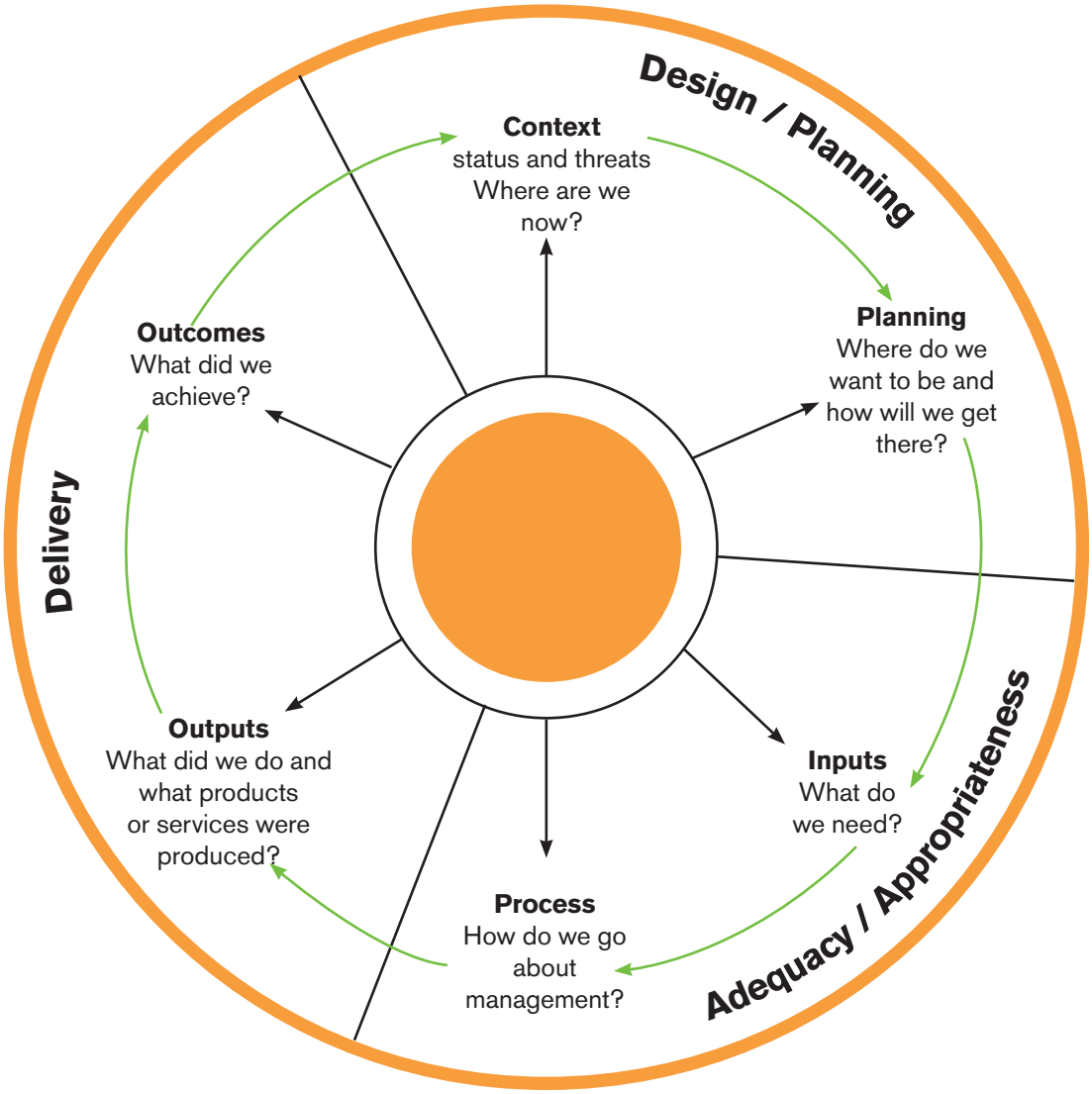
Phase 2:
gathering information and technical support, promoting awareness, helping participants to organise (some weeks or months

Phase 3:
workshop to assess and evaluate governance and plan for action (one week to ten days)

Phase 4:
taking action and obtaining results (… for as long as it is needed)

Source: Borrini -Freyerbend et al. 2013

Figure 4. The framework for assessing PAME of protected areas



Source: Hockings et al. 2006

The PAME process and its links to SAPA

The PAME framework endorsed by IUCN (Hockings et al. 2006) is based on the project management cycle. The framework highlights six key elements that need to be addressed in the PAME assessment process: a) context, b) planning, c) inputs, d) outputs, e) outcomes (Figure 4). For each of these elements there is a suggested set if issues – or criteria – to be explored. As Table 2 shows, a number of these criteria are based on governance and social issues – for example – community involvement, sustainable resource use and overall effect of the PA on the community. Overall, however, social issues account for a relatively small proportion of the total number of issues that PAME covers.

A number of different PAME tools have been developed over the years (Leverington et al. (2008; 2010a; 2010b). Foremost amongst these is the Worldwide Fund for Nature (WWF)/World Bank Management Effectiveness Tracking Tool (METT). First operational in 2003, the METT is now applied as a mandatory part of all PA projects funded by the Global Environment Facility (GEF), the World Bank and the Critical Ecosystem Partnership Fund (CEPF). Of the other 40 or so PAME tools, the most commonly used are the Rapid Assessment and Prioritization of Protected Area Management Methodology (RAPPAM); the New South Wales State of Our Parks (NSW SOP) tool; the Programa Ambiental Regional para Centroamérica (PROARCA) tool; and the BirdLife Important Bird Areas monitoring framework.

Table 2. Criteria for each element in the IUCN-WCPA PAME Framework

	ELEMENTS					
	Context	Planning	Inputs	Processes	Outputs	Outcomes
CRITERIA	Values and significance Threats Stakeholder attitudes and relations Influence of external environment	Legal status/ gazettal Tenure issues Adequacy of legislation System design Site design Management planning	Staff Funding Equipment and facilities Information	Governance and leadership Policy development Administration, work programming and internal organisation Evaluation Maintenance of infrastructure, facilities, equipment Staff training Human resource management Law enforcement Community involvement Communication, education and interpretation Community development assistance Sustainable resource use – management and audit Visitor management restoration and rehabilitation Resource protection and threat reduction Research and monitoring	Achieving work programme Results/ outputs	Achieve objectives Condition of defined values Trend of defined values Effect of protected area on community

Source: Hockings et al. 2006

The PAME tools vary in the extent to which they address social and governance issues. Of the two main global tools (METT and RAPPAM), the METT is based on a series of questions which are scored on a scale of 0–3 to allow for basic statistical analysis includes specific questions on participation by indigenous peoples and local communities and their relationship with the PA (Box 1) while RAPPAM includes a dedicated section on the socio-economic importance of the site, ranked on a four point scale as well as relevant sections on vulnerability and on legal security (Figure 5).

Another interesting tool is the World Heritage (WH) online reporting tool "Enhancing Our Heritage" which includes a section dedicated to social and cultural uses and values of the WH property. The WH guidance says that these aim to cover "social factors that affect the fabric of heritage sites". Some uses might have a positive impact as they enhance certain values (*e.g.*, ritual or religious) while others might compromise ascribed values and could lead to the deterioration of the heritage place (Box 2).

BOX 1. SOCIAL AND GOVERNANCE QUESTIONS IN THE METT

7a. Planning process: The planning process allows adequate opportunity for key stakeholders to influence the management plan

20. Education and awareness: Is there a planned education programme linked to the objectives and needs?

22. State and commercial neighbours: Is there cooperation with adjacent land users?

23. Indigenous people: Do indigenous and traditional peoples resident or regularly using the protected area have input to management decisions?

24. Local communities: Do local communities resident or near the protected area have input to management decisions?

24a. Impact on communities: There is open communication and trust between local and/or indigenous people, stakeholders and protected area managers

24b. Impact on communities: Programmes to enhance community welfare, while conserving protected area resources, are being implemented

24c. Impact on communities: Local and/or indigenous people actively support the protected area

25. Economic benefit: Is the protected area providing economic benefits to local communities, e.g. income, employment, payment for environmental services?

26. Monitoring and evaluation: Are management activities monitored against performance?

BOX 2. SOCIAL AND GOVERNANCE ISSUES IN THE WORLD HERITAGE ONLINE REPORTING TOOL

3.8.1 Ritual/spiritual/religious and associative uses

- Ritual/spiritual/religious uses and associations
- Festivals/performances

1.1.2 Society's valuing of heritage

- Changes in values leading to new uses of heritage resources, including increased/decreased appreciation, expansions of / additions to current uses of heritage resources, conflicting values, abandonment.

1.1.3 Indigenous activities

- Activities including hunting, gathering and collecting for traditional/cultural purposes/rights

1.1.4 Changes in traditional ways of life and knowledge system

- Loss of traditional knowledge and practices linked to heritage

1.1.5 Identity, social cohesion, changes in local population and community

- Changes of identity and social cohesion
- Changes in livelihoods
- Migration to or from site
- Changes in local population and community

1.1.6 Impacts of tourism/visitor/recreation

- Inappropriate/non-existent interpretation
- High levels of visitation
- Increase of vendors inside/outside site
- Building community support, sustainable livelihoods

Overall, it is clear that the widely used PAME tools all address governance and social issues but generally to a very limited extent. And even when social and governance issues are included within PAME tools, they are not necessarily tackled by those using the tool. An analysis of 3,600 METT data sheets found that the "bonus" questions (for example 24 a, b, c in Box 1 above) are generally not answered (Geldmann, unpublished analysis), greatly reducing the potential of the data gathered using this tool to provide information on the social impacts of these reserves.

Figure 5. Social and Governance Questions in RAPPAM

4 SOCIO-ECONOMIC IMPORTANCE					Notes
y	m/y	m/n	n		
○	○	○	○	a) The PA is an important source of employment for local communities.	
○	○	○	○	b) Local communities depend upon the PA resources for their subsistence.	
○	○	○	○	c) The PA provides community development opportunities through sustainable resource use.	
○	○	○	○	d) The PA has religious or spiritual significance.	
○	○	○	○	e) The PA has unusual features of aesthetic importance.	
○	○	○	○	f) The PA contains plant species of high social, cultural, or economic importance.	
○	○	○	○	g) The PA contains animal species of high social, cultural, or economic importance.	
○	○	○	○	h) The PA has a high recreational value.	
○	○	○	○	i) The PA contributes significant ecosystem services and benefits to communities.	
○	○	○	○	j) The PA has a high educational and/or scientific value.	

5 VULNERABILITY					Notes
y	m/y	m/n	n		
○	○	○	○	a) Illegal activities within the PA are difficult to monitor.	
○	○	○	○	b) Law enforcement is low in the region.	
○	○	○	○	c) Bribery and corruption is common throughout the region.	
○	○	○	○	d) The area is experiencing civil unrest and/or political instability.	
○	○	○	○	e) Cultural practices, beliefs, and traditional uses conflict with the PA objectives.	
○	○	○	○	f) The market value of the PA resources is high.	
○	○	○	○	g) The area is easily accessible for illegal activities.	
○	○	○	○	h) There is a strong demand for vulnerable PA resources.	
○	○	○	○	i) The PA manager is under pressure to unduly exploit the PA resources.	
○	○	○	○	j) Recruitment and retention of employees is difficult.	

7 LEGAL SECURITY					Notes
y	m/y	m/n	n		
○	○	○	○	a) The PA has long-term legally binding protection.	
○	○	○	○	b) There are no unsettled disputes regarding land tenure or use rights.	
○	○	○	○	c) Boundary demarcation is adequate to meet the PA objectives.	
○	○	○	○	d) Staff and financial resources are adequate to conduct critical law enforcement activities.	
○	○	○	○	e) Conflicts with the local community are resolved fairly and effectively.	

Storage and use of protected area data

Understanding the social and governance issues associated with protected areas does not stop at simply collecting the right data. There is also an issue of how that data is subsequently stored and how to use such information. Possible ways in which the data can be used include:

1 For the better management of the protected areas themselves, and in this case the main need is for the site managers to store and use the data.

2 For NGOs or funding agencies to assess the degree that their funding and support has made a measurable difference to the protected areas that are being targeted. In this case the organisations require some form of database where the data collected can be stored and retrieved across sites and over time.

3 For countries and the global community to be able to track the achievement of Aichi Target 11, especially the elements that relate to "effective and equitable management". For these elements good data on management effectiveness, social and governance issues needs to be held in a form that can allow analysis over time and space, at different scales.

Currently, however, existing databases are poorly equipped to deal with social and governance data. The World Database on Protected Areas (WDPA) is the global standard database on protected areas. As of 2014 the database contains information on over 209,000 sites (IUCN-UNEP, 2014), and the data are used for various outputs in the scientific and policy areas. In terms of capturing social and governance information, however, the database is limited to the IUCN management category and governance type.

Work is ongoing to develop a global database on Protected Area Management Effectiveness (PAME), that is currently hosted by the University of Queensland (UQ). Data held in the database consists of a compilation of over 40 different PAME tools, including the most commonly used Management Effectiveness Tracking Tool (METT). Currently PAME data exists for about 13,000 protected areas, of the almost 210,000 that are known to exist. The database converts quantitative data that is collected and stored from various PAME tools into a common reporting format. However, while this captures a number of measures of the effectiveness of the protected area management, limited emphasis is given to social or governance considerations.

Discussion: PAME, SAPA and governance assessment – do they overlap?

3

It is clear that despite the strong mandate from the CBD Aichi Target 11 that protected areas should be not just effectively but also equitably managed, there is relatively little information contained in the global protected area data systems that enable progress towards this goal to be tracked. The available data gathering tools on protected areas have primarily focused on assessing the management quality of reserves and to a lesser extent on the conservation outcomes and even less on social outcomes.

Within the protected area management cycle, the existing tools to assess management effectiveness are currently inadequate if we really want to understand how protected areas are performing in terms of delivering conservation and social outcomes. This assertion is supported by a series of expert interviews which revealed a consensus that the PAME tools do not cover sufficient detail to provide quantitative measures that can be reliably used by PA managers or those aggregating the data for national, regional or global analyses. The simpler (and generally older) tools such as the METT and RAPPAM – which are also the most widely applied – have the least thorough coverage of social and governance issues. This is partly due to simplicity but also due to design as they were not designed as governance or social assessment tools. The more comprehensive (and generally newer) tools address the issues of governance and social aspects of protected area management quite well. The most comprehensive of these are the World Heritage "Enhancing our Heritage" tool and some of the South American tools developed from the 'State of Our Parks' reporting ideas in Australia. Even so, these more sophisticated tools still do not capture the full details of governance and social assessment that might be expected by specialists in those fields. For example, one respondent pointed to the PA Benefits Assessment Tool (PA-BAT) as a tool which provides detailed insights into the social benefits of protected areas. Another interviewee pointed out that the major limitation of this tool is that it is biased towards benefits with costs being poorly addressed.

Indeed, none of the existing PAME tools make significant reference to the *costs* of protected areas, with the exception of some reference to resolving conflicts. Some costs are difficult to assess in terms of significance but human wildlife conflict (HWC) and reduced access to resources are more easily quantifiable, and where there is a real problem this is fairly obvious (though sometimes exaggerated). This is a major gap in the available PAME tools and is something that needs to be addressed. Furthermore, there is generally no attempt to quantify the *distribution* of benefits and costs. Hence there is a real risk of an overall impression of net positive impact or low level net negative impacts hiding a bad situation for some (often poorer and/or marginalised groups) groups. The distribution of benefits and costs needs to be better recognised and measured.

Last there is an assumption that where there are livelihood activities designed to generate local benefits, that these actually work. Past Integrated Conservation and Development (ICD) project experience suggests this is a speculative assumption mainly because such interventions often target the wrong people (elite capture of benefits, invisibility of the very poor). In other words to get an accurate picture, PAME tools would need to not just explore whether livelihood support activities exist in the PA, but also whether they are succeeding.

To get a better sense of key gaps, we assessed several of the more common PAME tools, the current SAPA tool, the governance framework of IUCN, and the scientific approaches to conservation Impact Evaluation (IE) against a modified version of the project cycle when applied to protected area management (Hockings et al. 2006). This modification introduces the concept of *impact* as well as outcomes, with the definition of outcome being narrowed to changes in the shorter to medium term and impact being over longer time periods and more permanent in nature. This work shows that some of the PAME tools are better than others at covering all aspects of the management cycle, but that some of the simpler and most widely applied tools are best at the input and process stages and weakest at the outcome to impact stages. The SAPA process has much greater emphasis on outcomes and impacts, and does not measure outputs and process, which are more commonly recorded in PAME tools. Impact Evaluation – as implicit in its name – focuses specifically on the final impacts of protected areas and has been applied to both conservation and social impacts. Figure 7 provides details for each tool and offers a rough assessment of their coverage of different stages of the PA management cycle.

Our assessment of these different approaches to understanding protected areas provides some insights into the possible interactions between PAME, SAPA, governance assessment processes (Figure 6a). The central circles represent the simpler tools that are developed for assessment – PAME, Governance and SAPA – and the central area is the interaction between these tools. Linked to these three areas of work are more scientifically rigorous (but resource and capacity intensive) Impact Evaluation processes which can address each of the areas in detail, or can (potentially) cover all of them. Figure 6a shows the current situation with slight overlap between PAME and the SAPA and governance tools, whereas Figure 6b shows a potential future situation where a greater overlap between the tools has been achieved, either through adding relevant questions to existing tools, or through making the tools work better together in terms of answering the full range

Figure 7. Expert assessment of the degree that different tools and approaches cover the various elements of the PAME framework for evaluating protected area effectiveness

Elements of the PA management cycle	METT	RAPPAM	IBA	EOH	SAPA	Best Practice Guidance on PA Governance	Impact Evaluation
Design and Planning							
Context							
Planning							
Adequacy/Appropriateness							
Inputs							
Process							
Delivery							
Outputs							
Outcomes							
Impact							

Key:

No coverage
Minor coverage
Moderate coverage
Major coverage

Figure 6a (left) and 6b (right). Overlap between tools and approaches a) present day and b) potential future

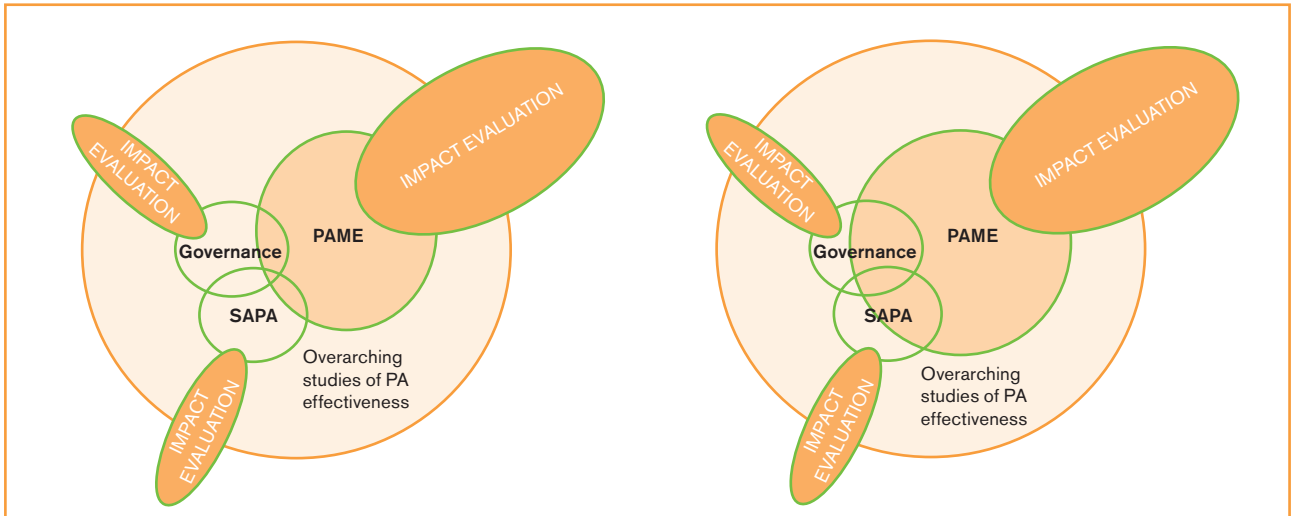


Illustration of the relationship between PAME, governance and SAPA tools, the broader assessment of impacts of simple management effectiveness, governance and social assessment tools, more rigorous Impact Evaluation approaches, and the holistic assessment of protected area effectiveness that includes all these aspects together for a) present day and b) potential future

of required questions. An alternative future situation would be where all governance and social questions are removed from the core PAME tools, which then focus on reserve management quality and conservation outcomes, and dedicated social and governance tools would be used alongside PAME. However this alternative future would run the risk of PAME tools being applied on their own, leading to a reduction in emphasis on social and governance issues in protected areas, rather than an increase.

Next steps: towards equitably managed protected areas

Clearly for protected area stakeholders to be able to assess their progress towards achieving equitable management of the sites with which they are concerned, further enhancements of the tools to collect, analyse and store protected area data are required. We propose a number of ways forward and invite your feedback on the options we outline.

1. Expand the METT: The simplest (and most regularly applied) of the PAME tools is the METT. As such, one of the logical ways to enhance the collection of governance and (especially) social data would be to augment the METT with further social questions. An important lesson from past attempts to alter this tool is that, if social questions are to be included in the METT, they need to be included as additional core questions rather than "bonus" questions attached to existing core questions. This should both encourage PA managers completing the datasheet to see them as being as important as the other questions and also prevent harming the structure of the form, allowing all past and future data to be compatible.
2. Improve the process: Most PAME tools rely on self-assessment by protected area managers. There are a number of ways this could be improved in order to generate more objective data. First it is important to ensure that all stakeholders have input to the process so that the results reflect the different opinions on management effectiveness and the social and governance outcomes in addition to the conservation outcomes. Second it is vital that all relevant fields including evidence/justification for scoring are completed properly otherwise the data will be not useful and potentially misleading. Thirdly all the results should be properly audited to ensure data quality and allow the data to be used for different purposes.
3. Expand the range of tools commonly applied: Further use could be made of other existing tools that contain a larger assemblage of governance and social questions. Perhaps the most comprehensive of these is the "Enhancing our Heritage" tool for the World Heritage Convention and the associated Periodic Reporting database for the same convention.
4. Specialist tools for specialist purposes: As the available questions on governance and social impacts in the METT and elsewhere are regarded as, at best, weak and at worst highly misleading and prone to systematic bias in the answers received, rather than expanding the existing management effectiveness tools, it could be better to remove the governance and social questions altogether. This would allow management effectiveness tools to focus on protected area management quality – and potentially the biodiversity outcomes – while leaving other more specialised tools to be used for social and governance assessments.
5. A modular framework: Existing management effectiveness tools cover a limited range of issues within the wider scope of protected area management. A broad framework for PA management could cover a number of additional areas including biodiversity outcomes and financial sustainability as well as social and governance issues. Each of these could be developed as a module which collectively address the full suite of issues that are encountered in protected area management. This modular approach could also be extended to data management and storage. For example, just as the WDPA is current linking to the PAME database module, so further modules could be developed that capture social data, governance data etc.

We are mindful, that PA managers have limited time and resources to undertake numerous parallel assessments of the sites they manage. Whichever option proves to be the best way forward, making the burden on them as light as possible is therefore desirable, although care must be taken that data collected through rapid or light touch methods is reliable.

We look forward to your feedback.

Join the debate

We invite your feedback on how best to measure progress towards Aichi Target 11's aspiration for equitably managed protected areas. Are existing PAME approaches sufficient to achieve this target? If not, what more do we need? Which of the options outlined in our paper would serve your needs the best?

References

Agrawal A. and K. Redford (2006) *Poverty, Development, and Biodiversity Conservation: Shooting in the Dark?* WCS Working Paper 26, Wildlife Conservation Society, Bronx, NY.

Agrawal A. and K. Redford (2009) Conservation and Displacement: An Overview. *Conservation and Society* 7: 1–10.

Andam K., P.J. Ferraro, K.E. Sims, A. Healy and M.B. Holland (2010) *Protected areas reduced poverty in Costa Rica and Thailand. PNAS* 107: 9996–10001.

BirdLife International (2006) *Monitoring Important Bird Areas: a global framework*. Cambridge, UK.

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

Brockington, D. and J. Igoe (2006) *Eviction for Conservation: A Global Overview. Conservation and Society* 4: 424–70.

Canavire-Bacarreza, G. and M.M. Hanauer (2013) Estimating the impacts of Bolivia's protected areas on poverty. *World Development* 41: 265–85.

Clements T., S. Suon, D. Wilkie and E.J. Milner-Gulland (2014) Impacts of Protected Areas on Local Livelihoods in Cambodia. *World Development*, http://dx.doi.org/10.1016/j.worlddev.2014.03.008.

Dudley N. and S. Stolton (2009) *The Protected Areas Benefits Assessment Tool*. WWF International, Gland, Switzerland.

Dudley N. and S. Stolton, editors (2009) *Protected Area management effectiveness: METT*. NORAD.

Glew L., M.D. Hudson and P.E. Osborne (2010) *Evaluating the effectiveness of community-based conservation in northern Kenya*. A Report to The Nature Conservancy.

Ferraro P.J., M.M. Hanauer (2014) Quantifying causal mechanisms to determine how protected areas affect poverty through changes in ecosystem services and infrastructure. *PNAS 111*: 4332–4337, doi: 10.1073/pnas.1307712111.

Hall J.M., N.D. Burgess, S. Rantala, H. Vihemäki, G. Jambiya, R.E. Gereau, F. Makonda, F. Njilima, P. Sumbi, and A. Kizaji (2014). Ecological and Social Outcomes of a New Protected Area in Tanzania. *Conservation Biology* DOI: 10.1111/cobi.12335.

Hockings M., R. James, S. Stolton, N. Dudley, V. Mathur, J. Makombo, J. Courrau and J. Parrish (2008) *Enhancing our Heritage Toolkit: Assessing management effectiveness of natural World Heritage sites*. UNESCO World Heritage Center, Paris.

Hockings M., S. Stolton, F. Leverington, N. Dudley, and J. Courrau. (2006) *Evaluating Effectiveness: A framework for assessing management effectiveness of Protected Areas.* Second edition. IUCN, Gland, Switzerland and Cambridge, UK.

Holmes G. (2007) Protection, Politics and Protest: Understanding Resistance to Conservation. *Conservation and Society* 5: 184–201.

Holmes G. (2014) What is a land grab? Exploring green grabs, conservation, and private protected areas in southern Chile. *Journal of Peasant Studies* 41: 547–567.

Holmes G. (2014) Defining the forest, defending the forest: political ecology, territoriality, and resistance to a protected area in the Dominican Republic. *Geoforum* 53: 1–10.

IUCN and UNEP-WCMC (2013) *The World Database on Protected Areas (WDPA)* UNEP-WCMC. Cambridge, UK. www.protectedplanet.net.

Leverington F., K. Costa, H. Pavese, A. Lisle, and M. Hockings (2010b) A global analysis of Protected Area management effectiveness. *Environmental Management* 46:685–698.

Leverington F., K. Costa, J. Courrau, H. Pavese, C. Nolte, M. Marr, L. Coad, N. D. Burgess, B. Bomhard, and M. Hockings (2010a) *Management effectiveness evaluation in Protected Areas: a global study.* Second edition. University of Queensland, IUCN- WCPA, TNC, WWF, St. Lucia, Queensland.

Leverington F., M. Hockings, and K. Costa (2008) *Management effectiveness evaluation in Protected Areas – a global study*. University of Queensland, Brisbane, Australia.

Naidoo R., L.C. Weaver, G. Stuart-Hill and J. Tagg (2011) Effect of biodiversity on economic benefits from communal lands in Namibia. *Journal of Applied Ecology* 48: 310–316.

Rantala S., H. Vihemäki, B. Swallow, and G. Jambiya (2013). Who gains and who loses from compensated displacement from protected areas? The case of the Derema Corridor, Tanzania. *Conservation and Society* 11: 97–111.

Schmidt-Solta K (2003), Conservation-related resettlement in Central Africa. Environmental and social risks, *Development and Change* 34: 525–551.

Schreckenberg K., I. Camargo, K, Withnall, C. Corrigan, P. Franks, D. Roe, L.M Scherl and V. Richardson (2010) *Social Assessment of Conservation Initiatives: A review of rapid methodologies*, Natural Resource Issues No. 22. IIED, London.

Simms K.R.E. (2010) Conservation and development: Evidence from Thai protected areas. *Journal of Environmental Economics and Management* 60: 94–114.

Twinamatsiko, M., J. Baker, M. Harrison, M. Shirkhorshidi, R. Bitariho, M. Wieland, S. Asuma, E.J. Milner-Gulland, P. Franks, D. Roe (2014) *Linking Conservation, Equity and Poverty Alleviation: Understanding profiles and motivations of resource users and local perceptions of governance at Bwindi Impenetrable National Park, Uganda*. IIED Research Report, London. http://pubs.iied.org/14630IIED.

WWF (2014). *Tanzania's Wildlife Management Areas:* A 2012 Status Report. WWF, Dar es Salaam.

Appendix 1: People interviewed regarding the extent to which social or governance issues are addressed in PAME tools

1) Chris Sandbrook – University of Cambridge, Department of Geography/UNEP-WCMC
2) Jonas Geldmann – University of Copenhagen, Department of Biology
3) Neil Burgess – UNEP-WCMC
4) Marcelo de Lima – UNEP-WCMC
5) Stephen Woodley – IUCN
6) Brian MacSharry – UNEP-WCMC
7) Heather Bingham – UNEP-WCMC
8) Lauren Coad – University of Oxford
9) Fiona Leverington – IUCN WCPA
10) Isaac Malugu – WWF Tanzania
11) Jamie Irvin – UNDP GEF
12) Jessie Mee – UNDP GEF
13) Marc Hockings – WCPA and University of Queensland
14) Sue Stolton – Equilibrium Consultants and IUCN WCPA
15) Grazia Borrini-Feyerabend – Commission on Environmental, Economic and Social Policy (CEESP) of the World Conservation Union (IUCN)
16) Trevor Sandwith – IUCN Protected Areas Programe
17) Dilys Roe – IIED
18) Phil Franks – IIED

Acronyms

CBD	Convention on Biological Diversity
CEESP	Commission on Economic and Social Policy
CEPF	Critical Ecosystem Partnership Fund
GD-PAME	Global Database on Protected Area Management Effectiveness
GEF	Global Environment Facility
HWC	Human Wildlife Conflict
IBA	Important Bird Area
ICD	Integrated Conservation and Development
IE	Impact Evaluation
IIED	International Institute for Environment and Development
IUCN	International Union for Conservation of Nature
METT	Management Effectiveness Tracking Tool
NGO	Non-Governmental Organisation
NSW-SOP	New South Wales 'State of Our Parks'
PA	Protected Area
PA-BAT	Protected Area Benefits Assessment Tool
PAME	Protected Area Management Effectiveness
PoWPA	Programme of Work on Protected Areas
PROARCA/CAPAS	Programa Regional Ambiental para Centro América/Central American Protected Area System
RAPPAM	Rapid Assessment and Prioritization of Protected Areas Management
UNEP-WCMC	United Nations Environment Programme-World Conservation Monitoring Centre
UQ	University of Queensland
WCPA	World Commission on Protected Areas
WDPA	World Database on Protected Areas
WH	World Heritage
WMA	Wildlife Management Areas
WWF	World Wide Fund for Nature

Parties to the Convention on Biological Diversity (CBD) have agreed that by 2020 at least 17 per cent of terrestrial and inland water and 10 per cent of coastal and marine areas should be conserved through *"effectively and equitably managed, ecologically representative and well connected systems of Protected Areas and other effective area-based conservation measures"*. The effectiveness of protected areas has been subject to measurement and assessment for the last decade and a wide range of Protected Area Management Effectiveness (PAME) tools and methods have been developed. However, there is no equivalent means of measuring progress towards the goal of equitable management. Is PAME enough? Should social and governance issues be better incorporated into existing PAME processes? Or do we need stand-alone additional assessments if we really are to get to grips with equity?

IIED is a policy and action research organisation. We promote sustainable development to improve livelihoods and protect the environments on which these livelihoods are built. We specialise in linking local priorities to global challenges. IIED is based in London and works in Africa, Asia, Latin America, the Middle East and the Pacific, with some of the world's most vulnerable people. We work with them to strengthen their voice in the decision-making arenas that affect them – from village councils to international conventions.

iied

International Institute for Environment and Development
80-86 Gray's Inn Road, London WC1X 8NH, UK
Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
email: info@iied.org
www.iied.org

Knowledge Products

Funded by:

UKaid from the British people

DARWIN INITIATIVE

This research was funded by UK aid from the UK Government as part of a wider project funded by the UK Government's Darwin Initiative. However the views expressed do not necessarily reflect the views of the UK Government.