Towards an Effective Protected Areas Network in Africa

Experience in assessing protected area management effectiveness and future proposals

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Preface

An ecologically representative network of effectively managed protected areas will make an essential contribution to sustainable development in Africa, maintaining biodiversity, environmental services and human well-being. Many governments have acknowledged the importance of protected area networks. The protected areas of Africa have been under a continual spotlight for some time, at the World Summit on Sustainable Development in September 2002 and the World Parks Congress in September 2003, both held in South Africa. The *Programme of Work on Protected Areas*, drawn up by the Convention on Biological Diversity in 2004, specifically requests countries to carry out management effectiveness assessments of at least 30 per cent of their protected areas by 2010. The New Partnerships for Africa's Development (NEPAD) programme contains an important *Africa Protected Areas Initiative* (APAI) aiming at building local capacity for protected area management. Well-managed protected areas are critical for the implementation of the Yaoundé Declaration and the objectives of the Conférence sur les Ecosystèmes de Forêts Denses et Humides d'Afrique Centrale (CEFDHAC) process in Central Africa, as reiterated during the signing of a region-wide forest conservation treaty in Brazzaville, Congo in February 2005.

Serious threats to Africa's protected areas have been highlighted, including degradation, the uncontrolled poaching and bushmeat trade, illegal logging and mining and incursions. The conference on African Forest Law Enforcement and Governance (AFLEG) in 2003 drew attention to the challenges of forest management and the role of illegal activities in degrading many of Africa's protected areas. Many governments, NGOs, protected area managers and communities have been struggling with the issue of improving protected area management. Africa has a young and vitally important network of protected areas. Many still exist in name only and need skills and resources to develop their management. Others face serious problems of degradation and illegal use. The need for more effective management of these existing protected areas is therefore an urgent priority. This report summarises contemporary African experience with assessment of management effectiveness, drawing on a range of case studies, including outputs from a workshop organised by WWF and the World Bank in Kribi, Cameroon in June 2002 and subsequent assessments. The paper is being released now to build on the unprecedented opportunities provided by NEPAD, the CBD and the Brazzaville Summit and provide a strategy for effective protected areas networks in Africa.

Contents

Section 1: Background

Improving protected area management effectiveness in Africa[1]

Protected areas constitute one of the most viable tools available to nations for securing and conserving environmental, social and economic capital. Processes leading to the establishment and effective management of protected areas consequently merit considerable attention. With reference to the forest biome, approximately 9 million hectares of IUCN categories I to IV protected areas exist as gazetted landscapes in West and Central Africa alone. These areas were established with the objective of providing an array of environmental goods and services but some are currently mere protected areas on paper, with little or no effective management. The majority face a number of problems, which they are ill-equipped to handle and so continue to remain inefficient in the attainment of their objectives. Current pressures and threats facing protected areas underscore the necessity for assessing their management effectiveness. Jim Thorsell of IUCN writes: "It can be fairly stated that all protected areas are under threat in one form or another", and this may be particularly true in the case of Africa.

The World Commission on Protected Areas (WCPA) has identified protected area management effectiveness as a key priority and ***assessment*** as a vital tool in improving effectiveness. WCPA states: "*The main objective of protected area evaluation is to **improve conservation and management effectiveness** of protected areas – both for protected area systems and individual protected sites*"[2]. Other objectives can include **project monitoring**, **reporting** and **advocacy**. WCPA published a framework and best practice guide to assessing management effectiveness of protected areas in 2000. Since then, many governments, research bodies and non-governmental organisations have experimented with ways of assessing effectiveness in protected area management. Methodologies vary from detailed site-level monitoring to a variety of rapid assessment tools for individual protected areas or for entire protected area systems.

A number of assessment methodologies and processes developed from the WCPA framework have so far been tested in Africa. As will become clear from the case studies described below, most countries have modified methods to suit their particular needs and conditions. The result is a rich array of tools and approaches designed and tested specifically for use in Africa. These now collectively provide a toolbox that other countries can draw upon to carry out assessments of their own.

To help encourage this process and to provide some agreed standards for assessment, WWF, IUCN and the World Bank cooperated on a number of initiatives:

- Agreeing a framework for management effectiveness (described in the following section)
- Developing a series of toolkits
- Testing these in different parts of the world
- Promoting management effectiveness to governments and international bodies

Many of the toolkits described below emerged from this process. Together they provide the means to move beyond testing methodologies and to apply a framework for assessing management effectiveness throughout Africa.

However, assessments are only a means to an end: they only have real value if the results are applied to improve management and secure protected area values. At the end of this document we therefore provide a draft strategy for improving protected area management effectiveness in Africa.

[1] Drawing on presentation by 'Wale Adeleke, Martin Nganje and Nigel Dudley at WWF - World Bank workshop, Cameroon, June 2002

[2] Hockings et al, 2000, *Evaluating Effectiveness*, IUCN and Cardiff University

A framework for assessment of protected area management effectiveness from the World Commission on Protected Areas[3]

Many protected areas are threatened or already undergoing degradation. To maximise their potential we need to understand the strengths and weaknesses in their management and the threats that they face. The World Commission on Protected Areas has developed a **framework** for assessing management effectiveness of both protected areas and protected area systems, to provide guidance to managers and others and to help harmonise assessment around the world.

The elements to be measured: Six elements are identified in the framework

1. Context - Where are we now? An important background element in assessing both the effectiveness of a protected area and the likely efficacy of management interventions is an understanding of its existing status, importance and the threats facing the area. Where assessment is used to identify *management priorities* this may be the main part of the assessment. It also provides information about management focus and issues such as the importance of biodiversity and types of threats.

2. Planning - Where do we want to be? The appropriateness of existing planning including: national protected area policies; plans for protected area systems; the design of individual protected areas; and management plans. Choice of indicators will depend on the purpose of assessment and particularly on whether assessment is focusing on a system of reserves or an individual protected area. In the former case, assessment would focus on the adequacy of representation of different habitats within a protected area network and the existence of planning tools. In the case of individual protected areas, the assessment would concentrate on the context and adequacy of management plans and work programmes.

3 & 4 Input and ***process – what do we need and how do we go about it?*** The primary area of interest relates to adequacy of resources and standards of management systems. Information is based on data about resources and management processes, including a measure of staff, funds, equipment and facilities required at agency or site level. Management processes can be assessed through issues ranging from day-to-day maintenance to the adequacy of approaches to local communities.

5 & 6 Output and ***outcome*** – ***what were the results and what did we achieve?*** The last two elements consider whether management has fulfilled the management plan, national plans and the aims of the IUCN category. Evaluation considers management actions and implementation of targets, work programmes or plans. Approaches to outcome evaluation involve long-term monitoring of biological and cultural resources, socio-economic aspects of use and impacts of the site/system's management on local communities. Ideally, systems will incorporate components covering each of the above elements, which are complementary rather than alternative approaches to evaluating management effectiveness. However, a partial evaluation can still provide useful information.

What level of assessment is needed? The framework can be applied at different levels depending on circumstances, resources and needs. Three broad levels of monitoring and evaluation are proposed.

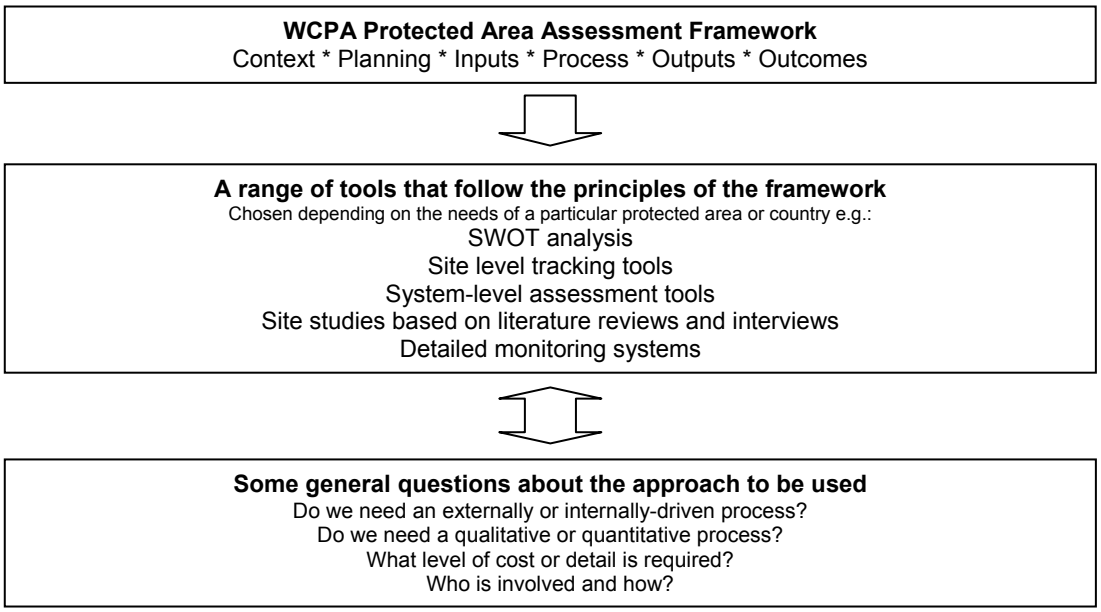
- Level 1 uses available data to assess the *context* of the protected area network or individual site along with the appropriateness of *planning*, *inputs*, *processes* of management. It may include limited assessment of outputs.
- Level 2 combines the approach taken in Level 1 with restricted additional monitoring of *outputs* and *outcomes* of management.
- Level 3 emphasises monitoring the extent of achievement of management objectives through focusing on *outputs* and *outcomes* while retaining measures of management *context, planning, inputs* and *processes*.

[3] This section is abbreviated from *Evaluating Effectiveness: A framework for assessing management of protected areas* by Marc Hockings with Sue Stolton and Nigel Dudley (2000)

Framework for assessing management effectiveness of protected areas

Elements of evaluation	**Context**	**Planning**	**Input**	**Process**	**Output**	**Outcome**
Explanation	***Where are we now?*** Assessment of importance, threats and policy environment	***Where do we want to be?*** Assessment of PA design and planning	***What do we need?*** Assessment of resources needed to carry out management	***How do we go about it?*** Assessment of way in which management is conducted.	***What were the results?*** An assessment of the quantity of achievement	***What did we achieve?*** An assessment of the quality of achievement
Criteria that are assessed	Significance Threats Vulnerability National policy	Protected area legislation and policy Protected area system design Reserve design Management planning	Resources for the agency Resources for the site Partners	Suitability of management processes	Results of management actions Services and products	Impacts: effects of management in relation to objectives
Focus of evaluation	Status	Appropriate-ness	Economy	Efficiency	Effectiveness	Effectiveness Appropriate-ness

A project's objectives will often determine the level at which the framework is applied. For example, an NGO reviewing a national protected area system for advocacy purposes is more likely to use a level 1 assessment, whereas protected area authorities trying to establish the effectiveness of individual sites would usually be better served by a level 3 assessment. A rough "hierarchy" of assessment systems is developing, ranging from country-level assessments of protected area systems through to detailed site monitoring. The diagram below suggests how the WCPA framework relates to various assessment systems and lists some questions to be asked in making choices about which system might be best in a particular situation.



A new edition of the WCPA framework is currently in preparation, which will include detailed protocols for assessment tailored specifically to the CBD Programme of Work.

Section 2: Case Studies

Considerable work has already taken place in Africa on the development, testing and application of methodologies for assessing protected area management effectiveness. This report summarises information on some very different experiences, in Côte d'Ivoire, Nigeria, Ghana, Cameroon, Gabon, South Africa and within the ECOFAC projects. Experiences from practical application are given below; these summaries concentrate on lessons learned about the methodology rather than on details of management effectiveness of the individual protected areas involved, which can be found in the final reports of these studies.

Case study 1: Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM) Methodology in South Africa[4]

WWF has developed a methodology for assessing the management effectiveness of protected area systems. This Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM) methodology looks at the effectiveness of each individual protected area, as well as the effectiveness of the system as a whole. The methodology is based on the framework developed by the World Commission on Protected Areas, is relatively easy and inexpensive to use and can be modified to fit local needs. It has been tested and / or implemented in over a dozen countries around the world, including South Africa. The aim of the methodology is to identify systematic strengths and weaknesses, understand the prevalence and severity of a range of threats and prioritise policy interventions. It can:

- Identify management strengths and weaknesses
- Analyse the scope, severity, prevalence, and distribution of various threats and pressures
- Identify areas of high ecological and social importance and vulnerability
- Indicate the urgency and conservation priority for individual protected areas
- Help to develop and prioritize appropriate policy interventions and follow-up steps to improve protected area management effectiveness

The RAPPAM Methodology includes five steps:

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

The most thorough and effective approach to implementing this methodology is to hold an interactive workshop or series of workshops in which protected area managers, policy makers, and other stakeholders participate fully in evaluating the protected areas, analysing the results, and identifying subsequent next steps and priorities.

South African application

KwaZulu-Natal (KZN) Wildlife is the government body responsible for managing the province's 110 protected areas. Between 2001 and 2002, KZN Wildlife assessed the effectiveness of the protected area system using RAPPAM. The assessment was part of a broader systematic conservation planning process that focused on identifying biological gaps within the entire protected area system. The assessment identified major threats, major weaknesses, some key recommendations and next steps, as summarised below.

Major threats to KZN protected areas

- **Alien animals**: including feral cats, dogs, donkeys, cattle, rodents, reptiles, birds and fish
- **Alien plants**: non-indigenous plants that aggressively out-compete indigenous vegetation
- **Arson**: unplanned fires started as a result of human action
- **Bush encroachment**: increase in the density of woody plants to the detriment of grassland ecosystems

[4] This case study draws on the methodology developed for WWF by Jamison Ervin and the KZN case study written by P S Goodman of KZN Wildlife. A full copy of the study is available on the web at http://www.panda.org/about_wwf/what_we_do/forests/our_solutions/protection/tools/rappam/index.cfm

- **Disease**: exotic diseases including tuberculosis, anthrax, rinderpest, foot-and-mouth
- **Erosion**: primarily caused by cattle grazing
- **Isolation**: of protected areas as a result of incompatible external land-use changes
- **Land invasion**: unlawful land occupation by squatters or for grazing
- **Land use change**: away from biodiversity conservation
- **Poaching**: includes both poaching and poisoning of birds of prey and other predators
- **Pollution**: airborne, river-borne and groundwater from pesticides and agrochemicals
- **Resource use**: legal use of thatch, fodder, wood, medicinal plants, bark, tapping of sap
- **Siltation**: of natural water bodies such as rivers and lakes
- **Tourism**: including infrastructure, refuse and trampling

Major management weaknesses

- **Inadequate funding**: over 90 per cent of park staff felt that funding was inadequate
- **Inadequate equipment**: nearly 70 per cent of field staff felt that equipment was inadequate and preventing the monitoring and evaluation of impact of management
- **Inadequate design**: over half the KZN protected areas were not designed to optimise biodiversity conservation, were surrounded by landscapes that did not enable effective park management or were too small to maintain viable populations
- **Inadequate management planning**: over half the protected areas do not have management plans and 40 per cent had inadequate natural resource inventories
- **Inadequate community education and outreach**: nearly 70 per cent of park staff felt that education and outreach remained inconsistent with need

Key recommendations

- **Secure legal status**: settle all outstanding legal claims and land use rights issues
- **Clarify management objectives**: identify critical biodiversity assets and develop more specific management objectives for each protected area
- **Assess biological assets**: evaluate existing data and conduct biological surveys when needed
- **Improve staff understanding**: include staff in the process of developing protected area objectives and management plans
- **Improve management planning**: hold protected area managers accountable for reporting achievements against objectives and enable revisions of management plans
- **Conduct annual threat analyses**: undertake in each protected area and incorporate into annual work plans
- **Conduct strategic research and monitoring**: develop key questions regarding critical information gaps and incorporate into annual research and monitoring plans
- **Improve site design and planning**: identify buffer zone areas and linkages with other protected and conserved lands
- **Improve equipment and infrastructure maintenance**: develop comprehensive maintenance schedules for equipment and infrastructure
- **Prioritise protected areas**: reallocate budgets based on priorities determined by biological and social importance and overall degree of threat
- **Assess community support**: conduct an independent survey of communities adjacent to protected areas to gauge support for protected area objectives
- **Control invasive alien plants**: collaborate with related initiatives to maximise effectiveness at controlling the spread of invasive species

Next steps

- **Prioritisation**: the assessment has highlighted the need to prioritise protected areas according to high biodiversity and high overall threat. KZN Wildlife is beginning to develop a flexible budgeting mechanism in order to be able to respond to priorities identified by the RAPPAM assessment
- **Continuous assessment**: KZN Wildlife plans to develop the RAPPAM Methodology into a continuous site-level assessment tool. Such a tool, which would be implemented annually, would provide the basis for adaptive management system.

Case study 2: Using the protected area Tracking Tool in Africa[5]

WWF has collaborated with the World Bank in the development of a simple Tracking Tool for protected area management, based around 30 or so key questions relating to management, based on the WCPA Framework. It consists of two main sections:

1. **Datasheet**: detailing key information on the site and its management objectives: name; size; location; date of establishment; details of ownership and management; staff numbers; annual budget; designations (e.g. IUCN category, Ramsar site etc); and details of WWF and World Bank projects. Information is requested on the two principle protected area objectives; two main threats and two critical management activities

2. **Assessment Form**: with three sections:
   - ***Questions and scores***: a series of questions – each with four alternative responses – can be answered by assigning a score between 0 (poor) to 3 (excellent). Questions not relevant to a protected area are omitted with a reason given in the comments section (e.g. questions about tourism will not be relevant to reserves where visits are prohibited). If no answer fits precisely the nearest is chosen.
   - ***Comments***: a box next to each question allows for ***qualitative judgements to be justified*** by explaining why they were made.
   - ***Next Steps***: for each question respondents are asked to identify a long-term management need to further adaptive management at the site, if relevant.

Final Score: is calculated as a percentage of scores from relevant questions

Questions: 30 questions cover a wide range of issues relating to management:

1. Legal status
2. Protected area regulations
3. Law enforcement
4. Protected area objectives
5. Protected area design
6. Protected area boundary demarcation
7. Management plan

7b. *additional questions about* stakeholder involvement, periodic review and research data

8. Regular work plan
9. Resource inventory
10. Research
11. Resource management
12. Staff numbers
13. Personnel management
14. Staff training
15. Current budget
16. Security of budget
17. Management of budget
18. Equipment
19. Maintenance of equipment
20. Education and awareness programmes
21. State and commercial neighbours
22. Indigenous peoples
23. Local communities

23b. *additional questions about* open communications and community welfare programmes

24. Visitor facilities
25. Commercial tourism
26. Fees
27. Condition assessment

27b. *additional question about* active efforts at restoration

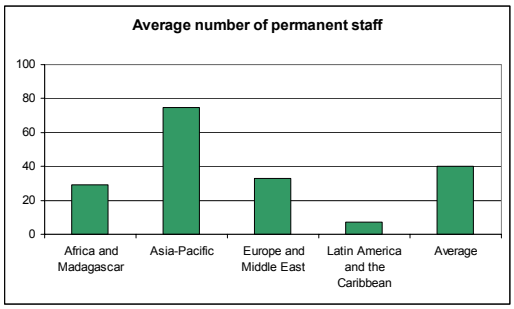
28. Access assessment
29. Economic benefit assessment
30. Monitoring and evaluation

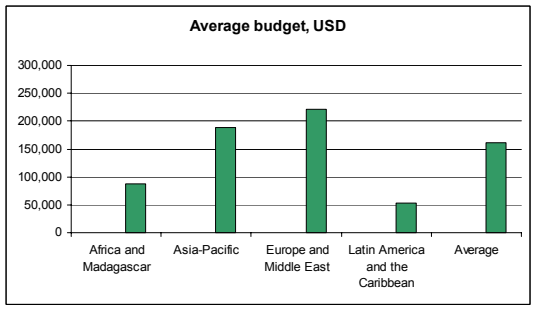
[5] This section has been prepared by Nigel Dudley

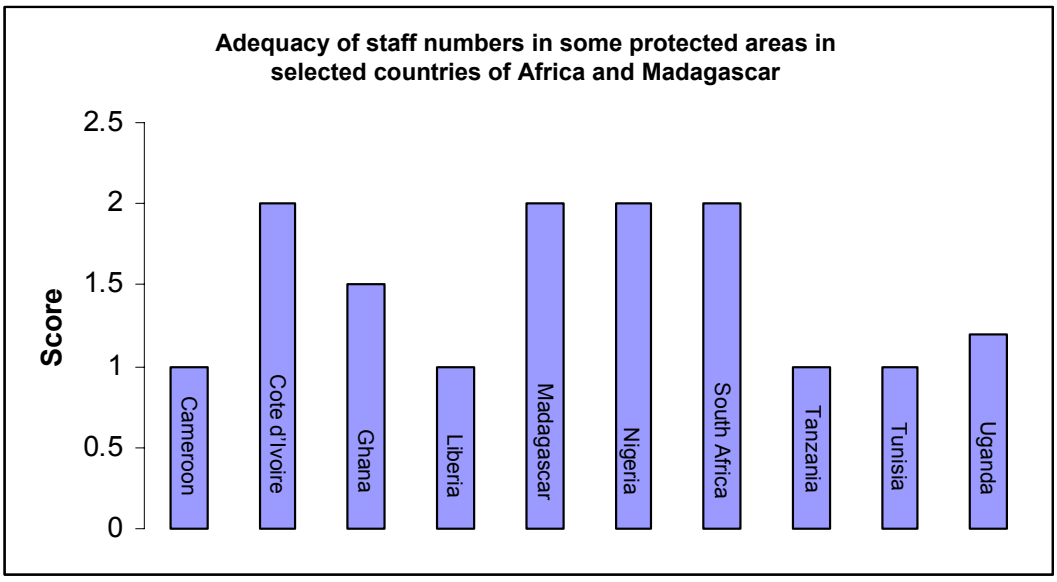
WWF has surveyed management effectiveness in over 200 forest protected areas in 37 countries, using the Tracking Tool developed with the World Bank and WCPA. This is the global survey with the widest sampling of countries yet undertaken of protected area effectiveness using a consistent methodology[6]. A total of 26 African protected areas were included, covering a total area of 7.5 million hectares. Protected areas from the following countries were included in the survey:

- Cameroon
- Côte d'Ivoire
- Ghana
- Liberia
- Madagascar
- Nigeria
- South Africa
- Tanzania
- Tunisia
- Uganda

The tracking tool will be most useful if used repeatedly, by comparing individual protected areas over time, and use of the column of "next steps" can provide a quick reference for necessary actions. WWF will be repeating the assessments of its entire protected area portfolio during 2005 and 2006. Analysis of a large number of protected areas also creates the possibility of comparing protected areas with each other by region, ecoregion, country or IUCN category for example. While the limitations of such a quick and subjective assessment must be stressed, some of the results are nonetheless interesting. For instance, it allows comparison of different regions with respect to staffing levels and budgets, but also allows more detailed analysis of performance in individual countries, as shown below (note that this is comparing individual protected areas from the countries listed and not the whole network).







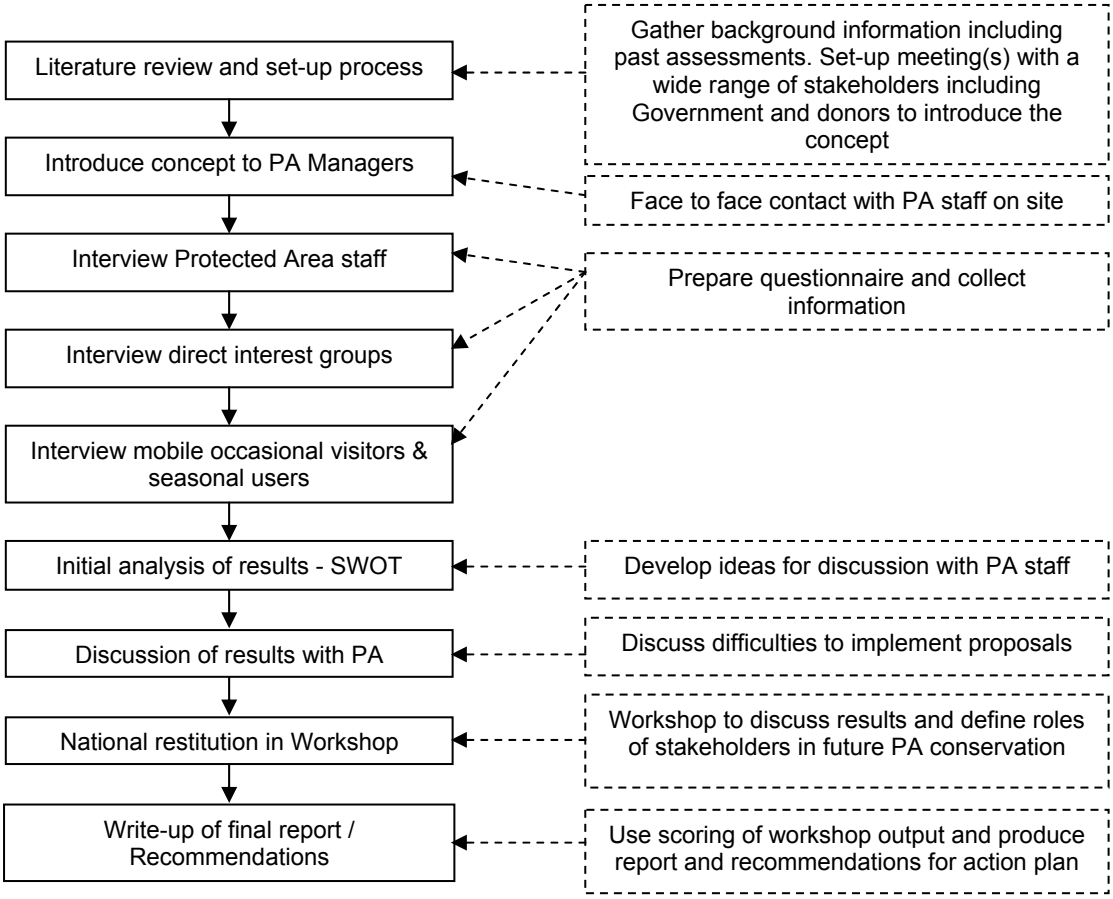
The tracking tool is being used by WWF, the World Bank and the GEF to measure progress towards protected area effectiveness in their own projects and will over time provide a simple way of showing changes in management capacity and results.

[6] WWF (2004); *Are Protected Areas Working?*, WWF International, Gland, Switzerland. See http://www.panda.org/forests4life

Case study 3: Congo Basin[7]

The draft WCPA Framework was used to develop a system for the assessment of management effectiveness for two pilot sites in the Congo Basin. The results of the trial have been used in the Congo region to demonstrate the value of assessing management effectiveness and were also used to help to refine the final version of the WCPA framework. The methodology put particular emphasis on social aspects and increasing the participation of a wide range of stakeholders in assessment. A participatory approach was adopted, consisting of a combination of Rapid Rural Appraisal (RRA) and Participatory Rapid Appraisal (PRA).

Flow diagram of the methodology used in the Congo Basin



Two questionnaires helped to assess management effectiveness (one for protected area staff and one for local communities). The open-ended questionnaire covering relevant biophysical and socio-economic issues related to management of the protected areas was developed following the defined criteria, and used to collect information during group discussions. Background research included a literature survey and was followed up by site visits, interviews and analysis. After collection of data, the results were analysed to formulate conclusions and recommendations for adaptive management. Two methods were used – a SWOT analysis and scoring. The SWOT analysis looked at strengths, weaknesses, opportunities and threats under the headings of design and planning, inputs and influences, processes, outputs and outcomes. Scoring was carried out using a subjective scorecard adapted from the WCPA framework to provide an idea about the level of management

[7] This section is based on a presentation by Elie Hakizumwami, Species Survival Commission, Yaoundé, Cameroon (now with WWF CARPO)

effectiveness. The score is a trade-off of weaknesses against strengths in relation to predefined management objectives. Generally a four level rating scale was adopted. Additional points were added to issues of high importance to give them more weight. The level of the management effectiveness was related to a percentage. Although rating was subjective, results can show the areas requiring improvement. A key part of the assessment was the requirement to record information on why a particular score was allocated and comments on current issues or problems relating to the particular aspect of management. Whether these issues and problems were able to be controlled by managers and current and potential management initiatives in relation to each issue was also noted.

Testing of the methodology took place in the Dja reserve, which covers 5,260 km^2 in Cameroon and Minkébé Forest Reserve in Gabon. Dja was protected as a *'Réserve de faune et de chasse'* in 1950, a '*Faunal Reserve*' in 1973, a Biosphere Reserve in 1981 and was inscribed on the World Heritage list in 1984. Ecologically, the Dja Reserve is characterised by a deciduous and semi-deciduous forest mixed with extensive swamps. Dja harbours 109 mammal species including threatened species such as the gorilla (*Gorilla gorilla*) and elephant *(Loxodonta africana*). About 30,000 Bantou and Pygmies (Baka) people depend directly on the resources of the reserve. There is no commercial timber exploitation within the reserve although logging and mining take place close by. Poaching is common for home consumption and commercial purposes. The Minkébé Forest Reserve, covering 6,000 km^2, includes wetlands, a variety of primary forest types, and ancient patches of secondary forest. This diversity of habitat, coupled with the low human activity, provides an incredibly rich and varied environment for a large number of animal species. Minkébé is considered to be one of the few remaining regional strongholds for forest mammals.

The methodology collected data on all elements of the WCPA Framework[8]. Although it did not involve field monitoring of *outputs* and *outcomes*, it relied on working closely with a range of stakeholders, such as villagers from the area, who had some knowledge of these aspects. Of the 128 conclusions recorded in the SWOT analyses for the two sites, the majority related to the *planning* and *process* elements (each 25 per cent), followed by *outcome* elements (19.5 per cent), *input* and *context* (each 12 per cent) and *outputs* (6.5 per cent).

Lessons learned

In relation to the process of evaluation, the main limitation recorded during the process of field-testing the system for management effectiveness was the suspicion manifested by the protected areas management team toward the assessment. Introductory meetings were necessary to explain the objectives and the importance of assessing management effectiveness. Involving protected area staff in the development of the assessment process allowed for both an increased awareness of management effectiveness as an issue and the building of confidence between the assessor and staff. However the benefits of working with an external and independent assessor were evident in the community consultation phase of the assessment. Conducting discussions with the local communities in the absence of protected area staff created an environment of open and interactive discussions. Communities raised a number of issues concerning management of the site which, in the opinion of the assessor, would not have been raised if management staff had been present.

[8] *Protected Areas Management Effectiveness Assessment for Central Africa: A development report*, Elie Hakizmwami and others, May 2000, WWF and IUCN.

Case study 4: Côte d'Ivoire[9]

Introduction
The Guinean Moist Forest is a frequently broken expanse of forest situated south of the Sahara but lying just above the equator. The initial area measured 1,265,000 km², stretching from the south-eastern half of Guinea through the eastern part of Sierra-Leone, into Liberia, Côte d'Ivoire and Ghana and terminating in pockets of woodland in the southern halves of Togo, Benin and Nigeria. After decades of continuous deforestation, mainly due to logging, population pressure and agricultural expansion, the GMF constitutes one of the most fragmented forest types of the tropics. It is classified as critical, endangered and vulnerable. The remaining forest is rich in biodiversity with a high level of endemism. For example, in 750 species of butterflies 94 are endemic and of 9,000 vascular plant species, 700 are endemic. Moreover the area contains 551 mammalian and 514 avian species and hosts the most behaviourally evolved group of chimpanzees, with other flagships including the pygmy hippo and forest elephant.

Context
West Africa[10] covers a fifth of the land area of Africa and Madagascar but hosts almost half of the continent's population. The freedom of movement and nomadic tendency of populations in the region dating back many centuries has not been helpful for the GMF[11] whose degradation eventually led to its isolation and separate evolution from the Congolian forests. Of the initial 1,265,000 km² of GMF, only 141,000 km² or 15 per cent remains as close canopy forest today. Of these forests, about 18,000 km² exist as IUCN category I – IV national parks, representing a meagre 1.4 per cent of the original forest cover. Moreover management of protected areas in the region has evolved differently in keeping with directives acquired during the colonial era; i.e., mainly English and French, with little attempt to share information.

Gazettement is either by government Decree or by voted law, while management is mainly through protected area Acts and particular texts which could be issued by the technical ministry or administrative authorities. Concerning planning, the tendency has been to label a few individuals as experts and frequently engage them in the conception of management plans usually with limited visits to the protected area itself. Also, there is widespread reluctance by those responsible for sanctioning those who make illegal use of protected area resources. Considering but not limited to the foregoing, it was envisaged that the protected areas of West Africa should contribute in the refinement of the methodology for testing protected area management effectiveness thereby benefiting from the opportunity to bring effective protected area management to the forefront in countries of the region.

Description of the Method of Assessment
The method used for assessing management effectiveness in forest protected areas[12] of the GMF employed relevant elements of the generic checklist and Framework proposed by the World Commission on Protected Areas (WCPA). Although the WCPA Framework provides guidance for conducting site, system, agency, national / international level assessments, mainly the site level process was adopted for protected areas of the GMF. Criteria for choosing the protected areas focused on those that contained large amounts of forest, while seeking to represent size and management disparity for purposes of comparison.

The method evolved along the lines of the Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM) Methodology proposed by WWF's Forests for Life's Programme and on work by the Forest Innovations Project carried out in the Congo Basin in 2000. The GMF assessment, by virtue of its rapid and wide approach can be referred as a level 1 monitoring process; moreover because protected area management effectiveness

[9] This section is based on a presentation by Martin Nganje, WWF, Abidjan, Côte d'Ivoire
[10] These countries include: Cape Verde Islands, Mali, Senegal, The Gambia, Guinea Bissau, Guinea (Conakry), Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Niger, Burkina Faso, Togo, Benin, and Nigeria
[11] GMF countries include Sierra Leone, Liberia, Guinea, Côte d'Ivoire, Ghana, Togo, Benin, and Nigeria
[12] The following protected areas were assessed **Côte d'Ivoire** (Banco NP, Mt. Nimba Integral Reserve and the Taï NP); **Ghana** (Kakum NP / Assin Attandanso Resource Reserve, Kyabobo Range NP, Ankassa Resource Reserve / Nini-Suhien NP); **Nigeria** (Cross River NPs – Oban and Okwango), Okomu Wildlife Reserve)

assessment work using the WCPA approach has been going on in other areas with success for the last 3 years, the GMF methodology evolved by including a strong element of training; through a national workshop. Park managers, including their directors in central administration and the responsible Ministers have hailed the approach.

The method employed a field level questionnaire which was interpreted using a SWOT analysis, the scorecards approach and the analytical process for conservation and policy impacts on protected areas. Another element considered was to interview occasional / mobile visitors around protected areas. Due to the effective involvement of protected area administrations, the process is contributing to the attainment of one of the strategic priorities of the WWF West Africa Regional Programme Office (WARPO), which advocates for gazettement of 5 per cent of "original" GMF as protected areas and their effective management by 2005.

Threats and Pressures
The major threats facing protected areas of the GMF include mining, poaching, popular encroachment, extension of agricultural plantations, inappropriate sanctions or punishment of defaulters, and inadequate capacity for monitoring and for dealing with ground pressures. The inadequate planning capacity of protected area services is also a threat to the monitoring of progress in keeping with management plans. The most risk prone element is political instability mainly in Sierra Leone and Liberia, which is affecting protected areas in Guinea and Côte d'Ivoire. Fortunately on-going discussions seem to be breaking the dead-lock.

Lessons Learnt
The experience in using the methodology helped build experience in assessment:

- ***Involvement of the Responsible Administration at the Highest Level***: experience revealed that although obtaining access to protected areas was still very bureaucratic and lengthy, initial discussion with Ministers and national directors enhanced the seriousness with which the operation was treated.

- ***Issues of Objectivity and Selection of Assessor(s)***: score cards and conservation / policy analyses depend to a large extent on the objective or subjective judgement of assessor(s). Care must consequently be taken in the choice of assessors. This is even more necessary as protected area staff considered the assessment as a personal evaluation. Meanwhile some have asked for a comprehensive glossary of terms and a multi-stakeholder team to review findings before presentation in a national workshop.

- ***Problems of Language***: documentation is still evolving mainly in the English language. Local translations into French have so far not managed to provide precise enough equivalents for some of the key terms used.

- ***Issues about Interviewees***: the GMF has a high potential for being affected by stakeholders not residing near the forest, such as hunters, grazers, tourists and researchers. These "absentee" users interact with neighbouring protected area communities, influencing the latter in a variety of ways. It was hoped that capturing the perception of protected areas from these latter groups could contribute in influencing policy. Unfortunately this failed in Côte d'Ivoire and Ghana due to organisational and time related constraints.

- ***Training Element***: the assessments have constituted a remarkable moral booster for protected area staff. The national workshops were very helpful. Notwithstanding this a few questions remain with respect to timing and choice of assessments: when should a protected area be assessed i.e. what should prompt its assessment, and how frequently should the process take place?[13]

[13] *Evaluation de l'Efficacité d la Gestion des Aires Protégées en Côte d'Ivoire: Test Méthodologique* by Moussa Touré and Jean-Paul Lorng, WWF and the World Bank

Case study 5: Ghana[14]

An assessment was carried out on three protected area complexes: Ankasa protected area (made up of Ankasa Resource Reserve and Nini Suhien National Park); Kakum protected area (made up of the Kakum National Park and Assin Attandanso Resource Reserve); and Kyabobo Range National Park. The methodology drew on a number of previous toolkits but adapted these to local conditions. It followed a number of steps:

- Assessment of existing written information on each protected area – including the management plan (where this is available), studies carried out in preparation of the plan, project proposals, research reports, scientific papers etc
- Filling information gaps through open-ended, interactive interviews with protected area managers and community members, leading to the completion of a WWF Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM) questionnaire for each protected area – this process was helped because during development of management plans and policies on community involvement there had already been intense interaction with communities
- A summary of the data from the above sources into the six categories identified in the WCPA framework – i.e. compiling the data into the elements of the management cycle identified in the WCPA framework
- A SWOT analysis for each site – where strengths are clear advantages and positive outcomes; weaknesses are signs of conflict and negative influences; opportunities are issues where management changes and other actions could lead to benefits; and threats are issues likely to pose problems in the future
- A general evaluation of management effectiveness using a system of scoring against a set of criteria and indicators – the generic checklist suggested by WCPA in its management effectiveness framework was used although some additional suggestions are made in the recommendations section below
- A number of analyses to guide conservation and policy decision-making, including: assessment of severity of threat; overall vulnerability; conservation priority; severity and permanence of degradation; management effectiveness; management capacity; environmental management outlook; and likelihood of success
- Identification of next steps and priorities – a combination of conservation priority and likelihood of success helped to determine priorities leading to framework proposals

Findings of the assessment
The findings are laid out in detail in the final report[15], but are summarised in the table below.

Finding	Ankassa PA	Kakum PA	Kyabobo Range NP
General assessment	Score: 67%	Score: 71%	Score: 56%
Severity of threat	Overall guarded Score 1	Overall guarded Score 1	Overall low or guarded Score
Overall vulnerability	Very secure	Very secure	Very secure
Conservation priority	Moderately high Score 2.5	Moderately high Score 2.5	Low Score 2
Severity of degradation	Low Score 1.8	Low Score 1.7	Low Score 1.3
Management effectiveness	Very good Score 3	Very good Score 3	Very good Score 3
Management capacity	High Score 3	High Score 3	High Score 3
Environmental management outlook	Moderate Score 2	Moderate Score 2	Moderate Score 2
Likelihood of success of policy interventions	High Score 3	High Score 3	High Score 3
Priority for policy action	High Score 3	High Score 3	Moderate Score 2

[14] This section is based on a presentation by J G K Owusu, Accra, Ghana. The study being described also also involved Ben Volta-Tineh, Dziedzom Tettey and Daniel Adjei-Boateng
[15] *Protected Area Management Effectiveness Assessment for Ghana* (2001); J G K Owusu, Ben Volta-Tineh, Dziedzom Tettey and Daniel Adjei-Boateng, Government of Ghana, WWF and the World Bank

Lessons learned from use of the methodology

Support of protected area system authorities: prior to appointment of the consultant, talks had already been held with the Wildlife Division of the Forestry Commission; their acceptance and support greatly facilitated contact with the site managers. It also helped that the consultant, although external to the protected area institution, was known to and more or less trusted by the site managers.

- ***Objectivity***: the method, especially the scoring of general management effectiveness, appears to rely to a large extent on the subjective judgement of the assessor. Objectivity is however greatly improved by:
  - ✓ The availability and use of the WWF Rapid Assessment Methodology with a range of assessments for each question
  - ✓ Provision of guidance notes, definitions, possible indicators, verifiers and glossary
  - ✓ Involvement of a range of stakeholders not only in providing information but also in commenting on the assessor's initial findings

- ***Stakeholders***: while it is relatively easy to structure meetings with managers and neighbouring communities, the views of other stakeholders – such as casual or regular visitors, are not so easily captured and their input may be lost.

- ***Standardised criteria and indicators***: while standardised criteria are useful for comparing results, effective and sustainable management also depends on a number of localised factors – for example in Ghana having agreed and physically demarcated boundaries. A compromise might be to agree on national modifications and additions to the criteria.

- ***Conservation and policy analysis***: more thought is needed about the statistical basis for combining the components of some of the analysis, especially with respect to combining some of the indices.

- ***Scoring***: the study adopted a system of consistently awarding a low attribute a low score. However, as long as the interpretation of the scoring system is provided for each analysis, it should not normally matter a great deal whether such consistency is observed or not. It appears necessary to define conservation priority more closely for consistency in the interpretation of the score (and for scoring its components). In particular it needs to be agreed whether given the same high level of biological importance a more secure protected area deserves a higher or lower conservation priority than a more vulnerable protected area.

- ***Monitoring biodiversity***: if the method is refined further, it may be worth looking at alternative ways of determining a protected area's biological importance or significance. One simple alternative would be to increase the number of attributes, and several other alternatives are suggested in the WWF RAPPAM questionnaire.

- ***Policy***: it may also be useful to investigate some objective methods of assessing macro-policy environment support.

- ***WWF system***: the WWF RAPPAM questionnaire is quite comprehensive and, taken together with its guidance notes and glossary, could enable most of the information needed for all the assessments to be captured. If used for a rapid appraisal however, it needs to be condensed into a smaller number of issues and questions for each target group of respondents.

Case study 6: Nigeria[16]

The methodology used in Nigeria drew on the one developed in the Congo Basin (see the paper by Elie Hakizumwami in this report), including the SWOT analysis and management effectiveness scoring and on the modification of this approach used in Ghana (see the paper by J G K Owusu) including the conservation and policy analysis.

Assessment was carried out for the Cross River protected area complex (made up of two non-contiguous sectors, Oban Hills and Okwango) and for Okomu National Park.

The findings are laid out in detail in the final report[17], but are summarised in the table below.

Finding	Okomu National Park	Oban Hills	Okwangwo
General assessment	Score: 64%	Score: 56%	Score: 47%
Severity of threat	Low (road construction and agricultural conversion)	Low (logging, encroaching and poaching)	Low (logging, grazing, poaching, encroachment and fire)
Overall vulnerability	Very secure	Very secure	Very secure
Conservation priority	Moderately high Score 2.5	Moderately high Score 2.5	Moderately high Score 2.5
Severity of degradation	Low Score 1.5	Low	Low Score 2.1
Management effectiveness	Very good Score 2.5	Fairly good Score 1.5	Fair Score 1
Management capacity	High Score 3	Medium Score 2.4	Medium Score 2.1
Environmental management outlook	Moderate Score 2.1	Moderate Score 2.3	Moderate Score 2.2
Likelihood of success of policy interventions	High Score 2.5	Moderate Score 2.4	Moderate Score 2.4
Priority for policy action	Moderately high Score 2.5	Moderately high Score 2.5	Moderate Score 2.4

As a result of the assessment, a number of recommendations were also made regarding the management of protected areas:

- Some aspects of the Decree governing operation of protected areas may require modification to reflect contemporary developments, including possibly harsher punishments for illegal activities and conversely greater access to protected area benefits for local communities
- There is an urgent need for a complete management plan for both protected areas, rather than operating on annual work plans as at present
- Provision of weapons for protected area guards is also necessary, as guards currently have to tackle armed poachers with only sticks and machetes
- Greater training for staff, including training overseas where applicable, would improve performance
- Greater funding is needed for management of the protected areas
- Extension of the assessment to the other six protected areas in Nigeria would help to determine if the conditions in these two protected areas reflects the overall situation in the country

[16] This section draws on a presentation by Oye Simon Adedoyin, Federal Department of Forestry, Ibadan, Nigeria

[17] *Assessment of Protected Area Management Effectiveness in Nigeria: Cross River and Okomu National Parks* (2002); Oye Simon Adedoyin, Federal Department of Forestry

Lessons learned

- ***Collaboration***: the study benefited from full cooperation with partners, including the Nigerian Conservation Foundation, National Parks Service and individual protected area managers. Each of the protected areas delegated an officer to work with the consultant and this greatly facilitated the assignment. Protected area managers demonstrated openness and enthusiasm for the study.

- ***Tailoring questionnaires to local conditions***: the terms of reference provided a guide questionnaire for filling data gaps, although this required some modifications to suit local circumstances. For instance, a separate questionnaire was developed for other partners in the protected area (NGOs, international agencies, state forestry departments etc) to ensure that their influence on the protected areas was properly captured.

- ***Participation***: although there are clearly arguments for interviewing local people in the absence of protected area staff, there are also costs in this approach, in terms of both building suspicion amongst the latter and also practical problems of locating and approaching communities without local experience. In this case interviews with local communities took place in the presence of protected area staff and it was not felt that this is a problem.

- ***External assessors***: an assessment inevitably ends up as some form of judgement. To allow transparency, it is therefore recommended that an external assessor is hired, as more sensitive issues are likely to be avoided if the assessment takes place in-house.

- ***Scoring***: one observed problem is that the allocation of a score is inconsistent. Attributes that are low are scored zero in the indicators for management effectiveness but scored 1 in the section on conservation and policy analysis. Some of the scores in the latter could be presented as fractions and this was done in some cases.

- ***WCPA framework***: It was felt that the WCPA framework has the potential to provide useful assessments of the management effectiveness of protected areas in the ecological and social conditions in Nigeria. However, the steps need to be followed quite carefully and the assessment is only meaningful if the resulting data are carefully analysed to draw meaningful conclusions.

Case Study 7: Central Africa[18]

Few protected areas in central Africa have functioning management structures and almost nothing is known about management effectiveness. The ECOFAC (Conservation et rationnelle des **ECO**systèmes **F**orestieres d'**A**frique **C**entrale) site-based protected area evaluation system is structured on the basis of PCI (Principles, Criteria and Indicators):

- **Principles**: objectives contributing to biodiversity conservation (e.g. establishment of a surveillance system for a protected area)

- **Criteria**: desired status sought (e.g. reduced hunting pressure)

- **Indicators** (biological and physical; social and economic; economic and management): measurable variables relating to each criteria (e.g. number of snares/km patrolled) – indicators need to be measurable, simple to collect and cost effective)

For example:

Overall aim	**Biodiversity conservation in the protected area**	
Principles	Establish an effective surveillance system	Achieve economic development in the protected area and buffer zone
Criteria	Reduced hunting pressure	Tourist activities operational
	Stable wildlife populations	Improved economic status of local stakeholders
Indicators	Number of snares/km of patrol	Number of tourists/month
	Number of arrests/patrol day	Revenue/year
	Number of elephant carcasses/km	Proportion of children at school
	Number of elephant dung piles/km	Functioning social services
	Number of gorilla nest sites/km	Number of jobs created
	Number of small primate groups/km	Ration of tin/thatched huts

Types of indicators
A wide range of indicators are used, depending on individual conditions. Some examples are given below.

Examples of biological and biophysical indicators:
- Rainfall, temperature and river levels
- Key animal species (direct or indirect observations/unit of effort)
  - ✓ Observable species
  - ✓ Landscape species, species targeted by hunters
  - ✓ Species of special interest (endemic, particularly threatened)
  - ✓ Monitoring of "bais" (forest clearings) as indicators of conservation status
  - ✓ Great ape health (emerging diseases)
- Key plant species
  - ✓ Phenology of food plants influencing ranging (seasonality of fruiting)

Examples of social and economic indicators
- Employment levels, income
- Social infrastructure
  - ✓ Number of functioning schools
  - ✓ Proportion of children attending school
  - ✓ Dispensaries, wells, market, electricity…
  - ✓ Types of access (road, river) and availability of transport
- Types of house construction
  - ✓ Ratio of thatched to tin roofs
  - ✓ Type of wall construction (mud, plank, plaster)
- Demography
  - ✓ Size of villages
  - ✓ Immigration (numbers, ethnic groups)

[18] This section is based on a presentation by Conrad Aveling, of ECOFAC For more information see http://www.ecofac.org/

Examples of institutional/management indicators

- Appropriate legal framework
  - ✓ Existence of approved management plan
  - ✓ Staffing levels, equipment, infrastructures
- Anti-poaching effort (distribution and intensity of patrols)
- Illegal human activities (distribution and intensity of poaching)
- Stakeholder consultation mechanisms (number and frequency of meetings)

Data collection
Data collection needs to be fully integrated into the existing management system. ECOFAC achieves this by a system of "patrol-based monitoring", which exploits the observations made by guards on patrol.

Observations are collected with an innovative new tool – the Cyber Tracker field computer – which has been developed and adapted for use by the protected area guards during their patrols. The Cyber Tracker has been designed for quick and easy use in the field. A user interface has been developed for the Palm or Visor hand-held computer to record observations in the field. Icons allow the user to select options simply by touching the screen. The interface is designed with a series of screens that follow a logical sequence and then loop back to the start to enter new observations. Even users who cannot read or write can record very complex information by selecting icons on screens and simply following the path through a sequence of screens. With each recording there is also the option to make a field note of something unusual that is not covered by the standard menu. When the information is saved an integrated Global Positioning System (GPS) automatically records the location of observations. When the user gets back to the base camp he or she follows a very simple procedure to transfer the data onto a PC.

A simple query system allows the user to display observations for any selected period on a map. The user may query any level of detail corresponding to the information gathered by the field workers. The data collected by Cyber Tracker is automatically integrated into a GIS and allows conservation "effort" to be monitored and key information to be shown on a map. For example, a simple visual display of elephant tracks, fresh elephant dung and human activities on a map can be of great use to a park manager in identifying clearly where humans are illegally using the protected area and potential human/elephant conflict zones.

Use of the information
The information is stored in a central database, which generates various monthly summary reports, for example:

- Staff performance (number of days on patrol and kilometres patrolled)
- Indicators of abundance of wildlife species and human activities
- Socio-economic indicators
- Arrests, confiscations and convictions
- Use of equipment (munitions, batteries, Cyber units)
- Visitor statistics (tourists, researchers etc)

Section 3: Strategies for improving protected area management in Africa

In addition to identifying issues and options, the Kribi workshop organised by WWF and the World Bank also drew up a vision and a series of strategies for improved management, as outlined below.

Vision for protected areas in Africa

An effectively managed and ecologically representative network of protected areas throughout Africa: Government agencies with the capacity for and commitment to good protected area management

Strategies for improving management effectiveness of protected areas in Africa

1. Create a bold but realistic political vision for conservation at the sub-regional and national levels and establish / improve mechanisms for continuous stakeholder involvement in translating this vision into reality

2. Develop and harmonise policies, laws and management procedures relating to protected areas both within and between countries, with a particular emphasis on areas of transboundary conservation importance

3. Maintain and where necessary establish professional, semi-autonomous, institutions with responsibility for protected areas and ensure that relations with line ministries and local government are clearly defined and that enactment of policies such as gazettement is streamlined

4. Build the skills of protected area staff, create an esprit de corps, and establish a viable career path for conservation professionals within the civil service

5. Integrate protected area design and management into comprehensive land-use planning processes

6. Develop a diversified source of long-term direct funding to support the protected area system, including continued support from the international community, and establish efficient and transparent financial management structures that ensures funding is used for effective management and support of local communities

7. Raise the political profile of the region's protected areas by identifying and promoting their direct and indirect contributions to the national and local economies and highlight this linkage in the Poverty Reduction Strategies Papers process, the Millennium Goals and the World Parks Congress and other international initiatives

8. Formulate effective and realistic approaches to community engagement and clarify roles, rights and responsibilities in terms of co-management, enclaves, involuntary resettlements and use rights with respect to the sustainable development of local communities

9. Seek to widen the range of stakeholders actively involved in influencing, managing and funding protected areas to include for example local governments, local banks, timber companies, oil and mining companies, agro-investments, non-governmental organisations, professional hunters and local traditional hunting associations

10. Improve monitoring, information gathering and regular assessment within and around protected areas to increase understanding of the value of protected areas, management effectiveness, and to facilitate communication and education

An action plan for WWF– key interventions to improve protected area management

WWF is committed to seeing better management of protected areas in Africa. The following five actions are aimed specifically at increasing protected area management effectiveness and strengthening protected area networks. They are integrated with current targets and milestones of the WWF Forests for Life protected areas programme and more generally into the aims and objectives of ecoregional conservation.

By the end of 2007, in line with its current targets and milestones, WWF aims to carry out the following actions:

- **Action 1: Protected area system assessment**: promote assessment of protected area networks as a key component of adaptive management and national protected area programmes, wherever possible assessing protected area networks using the WWF RAPPAM methodology or an equivalent system. All assessments should be tailored to the needs of individual countries, as stressed in this report. WWF aims to work with its government and NGO partners to assess at least 30 per cent of Africa's protected areas by 2006, in line with global commitments made in the Convention on Biological Diversity's *Programme of Work on Protected Areas*. Assessments should aim to identify a clear series of actions, with a commitment for repeat assessment to check that adaptive management has been implemented. WWF's global milestone encapsulates this: *By 2007 at least 40 priority countries will have carried out national or regional system-wide protected area management effectiveness assessments and started implementation of key recommendations.*

- **Action 2: Development of baseline data and track progress**: develop good baseline data on protected areas through application of the World Bank – WWF protected area tracking tool in all protected areas where either organisation is involved, including in particular all protected areas covered by the Yaoundé Process. This has already begun and needs a concerted effort to be completed: once a database has been built up the tracking tool should be applied again at least every two years, to track progress on effectiveness. Results from this and other assessments will be integrated with the World Database on Protected Areas to compile a record of management effectiveness around the world. This implies that the tracking tool should be applied in all protected areas in Africa where WWF has a presence during 2005-2006; of particular importance will be building a baseline within priority regions such as the Congo Basin.

- **Action 3: Apply results of assessments to reach minimum requirements for protected areas**: the CBD specifically identifies the need for protected areas to reach minimum standards of management. Using results from the global assessment of protected area effectiveness, WWF has identified some minimum requirements that it will seek to develop in its protected area portfolio:

  - *Legal designation* including demarcation of *protected area boundaries*;

  - Agreement of clear *management objectives*; and

  - Development of an *operational plan*, *operational budget* and *monitoring plan*.

  In addition, two other target areas have been identified for improvement over this period: improving relations with indigenous and local peoples and increasing their participation in management structures; and reducing threats to protected areas particularly caused by illegal exploitation of resources. WWF has a specific milestone on this issue: *At least 50% of WWF's protected areas portfolio achieves an agreed minimum management effectiveness threshold by 2007, based on the use of the World Bank/WWF Tracking Tool.*

- **Action 4: Integration into wider landscapes**: undertake integrated protect-manage-restore programmes in five priority conservation landscapes in Africa, to demonstrate how

protected area networks can be harmonised with managed areas and can benefit from forest landscape restoration. Such programmes should be undertaken through negotiation with other stakeholders and careful development of a mosaic of different land uses, including protected areas managed using a range of IUCN protected area categories and integrated into existing ecoregional programmes[19].

- **Action 5: Ecological integrity**: design and implement effective methods for monitoring long-term health of biodiversity and ecological integrity in five flagship protected areas, developing methodologies that are suitable to the conditions and resources found in Africa. Such monitoring needs to look beyond flagship species to indicators that also capture information about biodiversity and ecosystem functioning and should be linked to adaptive management strategies. Programmes to be carried out in association with other partners as necessary. WWF's milestone states: *By 2007, ecological integrity and resilience ensured in at least 20 priority landscapes through approval and implementation of plans that enhance connectivity and build protected area networks.*

- **Action 6: Building effective partnerships with industry**: work with at least five commercial companies (logging, mining, oil and ecotourism companies) in partnerships to improve management effectiveness in protected areas in Africa. Cooperation could include for instance agreements to control the bushmeat trade, zoning of land around protected areas (for instance getting FSC or equivalent certification of forest concessions around protected areas), help in capacity building amongst protected area staff or direct financial support.

[19] Aldrich, Mark et al (2004); *Integrating Forest Protection, Management and Restoration at a Landscape Scale,* WWF International, Gland, Switzerland

Appendix 1: Commitments to protected area management effectiveness

Over the past few years, a series of high-level commitments have been made to improving management effectiveness of protected areas.

The Convention on Biological Diversity's Programme of Work on Protected Areas

The CBD Programme of Work on Protected Areas identifies a wide range of necessary initiatives (16 goals and 91 associated actions for Parties) related to protected areas. Several of these specifically mention management effectiveness, for instance:

Goal 4.2 – To evaluate and improve the effectiveness of protected areas management

Target: By 2010**,** frameworks for monitoring, evaluating and reporting protected areas management effectiveness at sites, national and regional systems, and transboundary protected area levels adopted and implemented by Parties.

Suggested activities of the Parties

4.2.1 Develop and adopt, by 2006, appropriate methods, standards, criteria and indicators for evaluating the effectiveness of protected area management and governance, and set up a related database, taking into account the IUCN-WCPA framework for evaluating management effectiveness, and other relevant methodologies, which should be adapted to local conditions.

4.2.2 Implement management effectiveness evaluations of at least 30 per cent of each Party's protected areas by 2010 and of national protected area systems and, as appropriate, ecological networks.

4.2.3 Include information resulting from evaluation of protected area management effectiveness in national reports under the Convention on Biological Diversity.

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

NEPAD and the African Protected Areas Initiative (APAI)

The New Partnership for Africa's Development (NEPAD) has an associated *Action Plan for the Environment Initiative*, which recognises the key role played by protected areas. In paragraph 143, in specific reference to forest conservation, the following aim is outlined:

"To improve the effectiveness of protected area management by strengthening the capacity of African institutions involved in forest protected area management"

The African Protected Areas Initiative is associated with NEPAD. APAI is conceived as an Africa wide and African led process aimed at addressing fundamental protected area related issues in Africa. The programme and activities of APAI are aimed at enhancing the conservation of biodiversity and management of protected areas systems. It will achieve this by catalyzing and facilitating international, regional, national and local action, promoting adaptive management approaches and technologies that reduce pressure on ecosystems, protected areas and resources.

Commission of Ministers in charge of Forests in Central Africa (COMIFAC)

A region-wide conservation treaty was signed by Presidents from Central Africa during the Second Heads of State Forest Summit — held on 4–5 February 2005 in Brazzaville, Republic of Congo — legally recognising the Central African Forests Commission (COMIFAC) as the only decision-making body on forests for the Central African Region.

The ten countries to sign the regional treaty include: Republic of Congo, Cameroon, Gabon, Democratic Republic of Congo (DRC), Central African Republic, Equatorial Guinea, Chad, Sao Tome and Principe, Rwanda, and Burundi. Originally called the *Conference of Ministers*, the Commission of Ministers in charge of Forests in Central Africa, or COMIFAC in short, was mandated by the Heads of State to implement the Yaoundé Declaration. COMIFAC's establishment has facilitated efforts to put the various forest related initiatives under one umbrella. It is the only decision-making body on forests in Central Africa.

In addition, a trilateral agreement was signed between Cameroon, Gabon, and Congo to protect 14.6 million hectares of forests including Dja, Odzala and Minkebe National Parks, the equivalent of 7.5 per cent of the entire Congo Basin.

An accord allowing free movement of park staff between Cameroon, Central African Republic, and Republic of Congo in the Sangha Tri-National Conservation Area was signed at the Summit. This means that park staff can work across international borders to fight poaching and illegal logging.

The COMIFAC process builds on previous commitments to protect natural forests in the Congo Basin and increases the focus on management effectiveness, primarily by facilitating action against the illegal bushmeat trade and timber poaching.

Appendix 2: Recommended tools for assessing management effectiveness of protected areas

WCPA framework
The WCPA framework (not a fully developed tool) on assessing management effectiveness of protected areas, ***Evaluating Effectiveness***, is available on the WCPA website at:

http://www.iucn.org/themes/wcpa/pubs/pdfs/Evaluating_Effect.pdf

A Russian language version is available on:

http://www.iucn.org/themes/wcpa/pubs/pdfs/effectiveness_rus.pdf

Summary versions have been published in English, French, Spanish and Bahasa-Indonesian and the Spanish government has published a full-length Spanish language edition.

Tools from WWF
The two protected area assessment systems developed by WWF are:

The ***Rapid Assessment and Prioritization of Protected Area Management*** (RAPPAM): a methodology that provides protected area agencies with a country-wide overview of the effectiveness of protected area management, threats, vulnerabilities and degradation. Available on:

http://www.panda.org/downloads/forests/rappam.pdf

Developed by the WWF and World Bank Alliance, the ***Tracking Tool*** is designed to further track and monitor progress towards worldwide protected area management effectiveness. It is aimed at being cheap and simple to use by park staff, while supplying consistent data about individual protected areas and management progress over time. Available on:

http://lnweb18.worldbank.org/ESSD/envext.nsf/80ByDocName/WBWWFForestAlliance

WWF International has set a target and a series of milestones relating to **forest protected areas**:

Target: The establishment and maintenance of viable, representative networks of protected areas in the world's threatened and most biologically significant forest regions, by 2010

Milestone 1: At least 25 million hectares of new forest protected areas are established in the world's most outstanding, as well as least represented and/or highly threatened priority forest ecoregions by 2007

Milestone 2: By 2007 at least 40 priority countries will have carried out national or regional system-wide protected area management effectiveness assessments and started implementation of key recommendations

Milestone 3: At least 50 per cent of WWF's protected areas portfolio achieves an agreed minimum management effectiveness threshold by 2007, based on use of the World Bank/WWF Tracking Tool

Milestone 4: By 2007, ecological integrity and resilience ensured in at least 20 priority landscapes through approval and implementation of plans that enhance connectivity and build protected area networks

Milestone 5: Three innovative mechanisms for sustainable funding of protected areas, such as payment for environmental services, developed and applied by 2007

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