World Heritage

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Enhancing our Heritage Toolkit

Assessing management effectiveness of natural
World Heritage sites

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Disclaimer

Foreword

The **Enhancing Our Heritage Toolkit** *is the labour of over seven years of site-based 'learning by doing' efforts and represents an important cooperation of UNESCO World Heritage Centre, IUCN and our partners. It was developed by a small and dedicated team of specialists with the critical and enthusiastic participation of World Heritage site managers from nine properties located around the world. The field-based experience of this group ensured that the Toolkit is rooted in practical realities and the requirements of the end users. We wish to thank these people for their tireless dedication to this major initiative.*
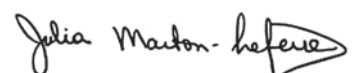
Natural World Heritage sites, like all protected areas, face many challenges to their integrity which, unless addressed can erode the outstanding universal value for which they were inscribed on the list of World Heritage. Those responsible for the conservation and management of World Heritage properties have the complex task of anticipating and dealing with these challenges, most often in an environment of limited financial and organizational capacity.[1] Under these circumstances, it is incumbent upon them to invest their efforts in the most critical areas, ensuring that available resources are applied to their maximum effectiveness.

The **Enhancing Our Heritage Toolkit** *contains twelve practical tools, each designed to help those responsible for World Heritage site conservation piece together the elements of a comprehensive management framework, including the construction of targeted monitoring strategies. Designed as separate exercises, each with tables and guidelines, the emphasis is on user-friendliness, flexibility, and adaptability to local realities. Although it has been developed with a focus on natural properties, the initiative also has potential value as a tool to assist cultural properties.*

Two of the nine participating sites were on the List of World Heritage in Danger at the outset of the development of the Toolkit. By the time the project had been completed, both had been removed from the Danger list. Though other factors are involved, the application of these tools in these sites clearly helped managers effectively deal with some of their major management challenges. It is in this spirit that we heartily welcome the **Enhancing Our Heritage Toolkit** *into the ever expanding box of World Heritage site management tools being developed through the* **World Heritage Convention**. *Our aim is to help World Heritage site managers and others involved in the management of the highest priority protected areas of the world improve their capacities and reach their management objectives for the benefit of the global community.*

Francesco Bandarin
Director of the UNESCO World Heritage Centre

Julia Marton-Lefèvre
IUCN Director-General

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1. In this connection we draw your attention to the on-line course "Business Planning for Financial Sustainability", developed by The Nature Conservancy with support from the UNESCO World Heritage Centre and hosted by the State University of Washington, and to the Shell Foundation – UNESCO funded 'Business Planning for Protected Area Managers Toolkit'.

Preface

On behalf of IUCN's World Commission on Protected Areas (WCPA) we are delighted to welcome the production of the **Enhancing Our Heritage Toolkit**, and to recommend it to the worldwide protected areas community.

Protected Areas are for life's sake. World Heritage sites act as flagships for the 120,000 protected areas that have been established by States across the globe. These special places are at the frontline of nature conservation.

WCPA recognizes the need to strengthen capacity and effectiveness of protected areas managers, through provision of guidance, tools and information and a vehicle for networking. The **Enhancing Our Heritage Toolkit** helps to make this objective a reality and focuses on the need for sound information and an adaptive approach which are key ingredients for successful World Heritage site management. The project has been built around the application of the IUCN World Commission on Protected Areas (WCPA) framework for assessing management effectiveness of protected areas, and therefore represents an international standard for best practice. We are grateful for the partnership with UNESCO, and the support of the United Nations Foundation that enabled it to happen.
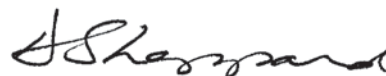
The **Toolkit** is of particular value as it is rooted in practical experience at ground level, and has been developed with protected area managers at World Heritage sites in Africa, South Asia and Latin America that have all been recognized for their biodiversity values. It has been designed to support the established monitoring processes of the **World Heritage Convention** by helping to provide site managers with the information on the condition and management of sites required to support Periodic Reporting and address issues identified in State of Conservation reports.

The **Toolkit** is also a good example of how the **World Heritage Convention** can help to create products that are of wide benefit to the conservation and effective management, not only within World Heritage sites, but in all protected areas. In this way the **Toolkit** also makes an important contribution to supporting the implementation of other international agreements, such as the Convention on Biological Diversity (CBD) Programme of Work on Protected Areas.

We would like to express our appreciation to all those who have made this project a reality. WCPA and IUCN are fully committed to promoting the widespread use of this toolkit and we look forward to its use and continued development.

Nik Lopoukhine
Chair, WCPA

David Sheppard
Head, IUCN Programme on Protected Areas

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Management Effectiveness
and World Heritage

Developing an assessment of management effectiveness for Serengeti World Heritage site, UR of Tanzania.

Introduction

The idea of identifying and protecting the world's most important natural and cultural sites has captured the imagination and commitment of many people and governments around the world. It led directly to the birth of the *World Heritage Convention* in 1972 and its subsequent ratification by more than 180 countries. These countries have committed themselves to ensuring the protection of their cultural and natural heritage, considered to be of outstanding universal value to humankind. By 2007, 851 sites had been included on the World Heritage list, including nearly 200 sites listed solely or partly for their natural values.

Inclusion of sites on the World Heritage list is an important step in ensuring their protection but does not, on its own, guarantee that the sites will meet the commitment to protection, conservation, presentation and transmission to future generations that designation as World Heritage entails. Despite the best efforts of countries, many World Heritage sites remain under pressure. The time of the World Heritage Committee is increasingly taken up with discussion of pressures on sites, consideration of reports of monitoring missions, proposals for listing and - recently - de-listing sites on the World Heritage in Danger list and, in general, working with and supporting countries in the challenges they face in managing these sites.

For natural World Heritage sites, this can also be seen as part of larger global efforts to conserve the world's biodiversity and other natural values through the designation and management of protected areas such as national parks. Large amounts of money, land and human effort are being invested in buying and managing protected areas around the world. However, the declaration of a protected area and well-intentioned efforts to manage it do not always guarantee the conservation of its values.

Management effectiveness

In recent years there has been a growing concern amongst protected area professionals and the public that many protected areas, including some natural World Heritage sites, are failing to achieve their objectives and, in some cases, are actually losing the values for which they were established. As a result, improving the effectiveness of protected area management has become a priority throughout the conservation community. One important step in this process is the carrying out of an assessment of current status and management of the protected area, to understand better what is and what is not working, and to plan any necessary changes as efficiently as possible. Assessment of management effectiveness has emerged as a key tool for protected area managers and is increasingly

being required by governments and international bodies. For example, the Convention on Biological Diversity (CBD) Programme of Work for Protected Areas (agreed in February 2004) calls on all State Parties to implement management effectiveness assessments for at least 30% of their protected areas by 2010.

In response to these initiatives, work on management effectiveness assessment has become an increasingly common component of protected area management worldwide. Evaluations have now been undertaken in many thousands of protected areas and the pace of this work is accelerating. International organizations working with protected areas such as IUCN and its World Commission on Protected Areas, the World Bank, the Global Environment Facility as well as NGOs such as WWF and The Nature Conservancy have taken a lead in both promoting the importance of management effectiveness as an issue, and in providing the technical development and support needed to underpin this effort. The UNESCO World Heritage Centre has played a key role in this process, supporting both methodological development and the application of management effectiveness assessment systems in natural World Heritage sites, culminating in the production of this technical publication.

Demands made on protected area managers to report on the status of their site have also increased. For example, global commitments such as the Millennium Development Goals and the CBD's goal to 'achieve by 2010 a significant reduction of the current rate of biodiversity loss' both require governments to report on the state of their country's biodiversity protection. Management effectiveness assessments can provide information needed for reporting.

The *World Heritage Convention* has additional reporting requirements: its systems of periodic reporting and reactive monitoring. All signatories to the *Convention* have to produce periodic reports on sites within their jurisdiction. In addition, the Advisory Bodies to the *Convention* (IUCN for natural sites and ICOMOS for cultural sites) together with the UNESCO World Heritage Centre prepare occasional state of conservation reports on sites at the request of the World Heritage Committee. Other conventions, regional processes, individual governments and donor organizations impose additional reporting requirements on managers which require a range of information, both in terms of data to support funding applications and for reporting on the use of funds. Finally, a variety of stakeholders, from businesses to local people, should also be regularly informed on the status of neighbouring World Heritage sites.

However, assessments should not primarily be about reporting on or judging either World Heritage sites or World Heritage staff. As important as reporting requirements are, the assessment of management effectiveness should primarily be used to assist managers to work as effectively as possible.

Monitoring threats and activities affecting a World Heritage site and using the results to manage for challenges, threats and pressures is increasingly seen as being at the core of good site management. Assessments help managers and stakeholders reflect on their experience, allocate resources efficiently, and plan for effective management in relation to potential threats and opportunities.

What is a management effectiveness assessment?

Protected area management effectiveness evaluation is defined as the assessment of how well protected areas are being managed – primarily, whether they are protecting their values and achieving agreed goals and objectives. The term 'management effectiveness' reflects three main themes of protected area management:
- Design issues relating to both individual sites and protected area systems;
- Adequacy and appropriateness of management systems and processes;
- Delivery of protected area objectives including conservation of values.

The precise methodology used to assess effectiveness differs between protected areas, and depends on factors such as the time and resources available, the importance of the site, data quality and stakeholder pressures. The differing situations and needs for protected areas thus require different methods of assessment. As a result, a number of assessment tools have been developed to guide and record changes in management practices.

A uniform theme to these assessments has been provided by the IUCN World Commission on Protected Areas (WCPA) Framework for Assessing the Management Effectiveness of Protected Areas (see Figure 1 for more information), which aims both to give overall guidance in the development of assessment systems and to encourage basic standards for assessment and reporting.

This toolkit uses the framework to develop a range of assessment tools for managers of natural World Heritage sites to build a comprehensive system of management effectiveness assessment.

The WCPA Framework for Assessing Management Effectiveness

The WCPA Framework sees management as a process or cycle with six distinct stages, or elements:

- it begins with establishing the **context** of existing values and threats
- progresses through **planning**
- allocation of resources **(inputs)**
- as a result of management actions **(process)**
- eventually produces goods and services **(outputs)**
- that result in impacts or **outcomes**.

Of these elements, the outcomes most clearly indicate whether the site is maintaining its core values, but outcomes can also be the most difficult element to measure accurately. However, the other elements of the framework are all also important for helping to identify particular areas where management might need to be adapted or improved.

Over the past ten years, numerous assessment systems have been developed, most based at least to some extent around the WCPA framework. They vary from simple questionnaire-type approaches suitable for individual protected areas, through workshop-style approaches aimed at whole protected area systems, to detailed monitoring systems. The approach described here is a fairly detailed monitoring and evaluation system, suitable for sites of particular importance – as should be the case for all natural World Heritage sites.

The men and women charged with the responsibility of managing World Heritage sites have little to turn to in terms of detailed technical guidance manuals specifically designed to help them with the difficult task of ensuring effective conservation and management of this irreplaceable heritage. This toolkit is intended to help managers with this task.

Figure 1: The WCPA Framework for Assessing Management Effectiveness.

Note: For more information on the WCPA framework see: Hockings, M., Stolton, S., Leverington, F., Dudley, N. and Courrau, J. 2006. *Evaluating Effectiveness: A framework for assessing management of protected areas,* (2nd edn) World Commission on Protected Areas, IUCN, Gland, Switzerland. The framework can be downloaded from:
http://www.iucn.org/themes/wcpa/pubs/guidelines.htm#effect2

Carrying out an Assessment

Introducing the assement to the local community in Bwindi Impenetrable National Park, Uganda.

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This chapter outlines the process for carrying out a management effectiveness assessment for a World Heritage site (or other protected area) using the Enhancing our Heritage process. The bulk of this toolkit consists of 12 tools for assessing various components of World Heritage site management effectiveness that together build a picture of how well a site is being managed and achieving its objectives. Tools can be used to supplement existing assessments or to build a new assessment system. They focus on the main values of the World Heritage site, identifying appropriate management objectives and assessing management effectiveness (see Figure 2.1 below).
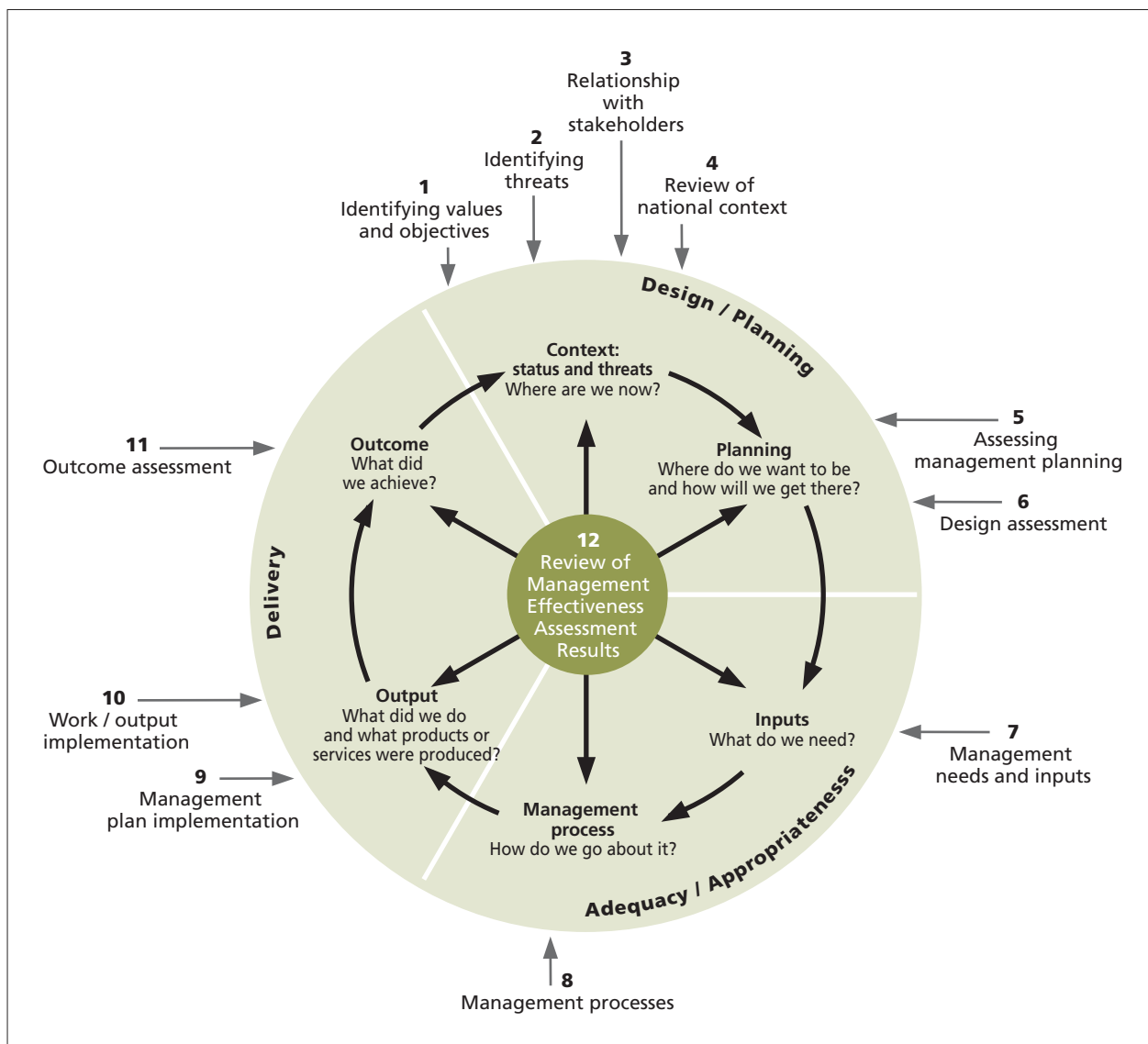
Figure 2.1: Relationship of tools in the toolkit to the WCPA Management Effectiveness Framework.

Tool 1: Identifying Site Values and Management Objectives

Identifies and lists major site **values** and associated management **objectives**. Together these help decide what should be monitored and analysed during the assessment.

Tool 2: Identifying Threats

Helps managers to organize and report changes in the type and level of threat to a site and to manage responses.

Tool 3: Relationships with Stakeholders

Identifies stakeholders and their relationship with the site.

Tool 4: Review of National Context

Helps understand how national and international policies, legislation and government actions affect the site.

Tool 5: Assessment of Management Planning

Assesses the adequacy of the main planning document used to guide management of the site.

Tool 6: Design Assessment

Assesses the design of the site and examines how its size, location and boundaries affect managers' capacity to maintain site values.

Tool 7: Assessment of Management Needs and Inputs

Evaluates current staff compared to staff needs and current budget compared to an ideal budget allocation.

Tool 8: Assessment of Management Processes

Identifies best practices and desired standards for management processes and rates performance against these standards.

Tool 9: Assessment of Management Plan Implementation

Shows progress in implementing the management plan (or other main planning document), both generally and for individual components.

Tool 10: Work/Site Output Indicators

Assesses the achievement of annual work programme targets and other output indicators.

Tool 11: Assessing the Outcomes of Management

Answers the most important question: whether the site is accomplishing what it was set up to do in terms of maintaining ecological integrity, wildlife, cultural values and landscapes, etc.

Tool 12: Review of Management Effectiveness Assessment Results

Summarizes the results and helps to prioritize management actions in response.

Who is this toolkit designed for?

This toolkit is designed for people who have the responsibility for managing World Heritage sites (especially natural sites), including staff in agencies who may be responsible for management of a number of sites. The objective of the toolkit is to provide both background information and specific tools that can be used to assess management of their sites. It is also designed for NGO and donor agency personnel who may be working with site managers and assisting or encouraging them to develop more robust monitoring and assessment systems.

While the toolkit has been designed specifically for natural World Heritage sites, the assessment principles, approaches and tools can be applied to other protected areas with minimal amendment.

Using the assessment tools

It should be noted that:

- *The assessment tools are generic,* and can be adapted to local situations. Sections that do not apply should be omitted. Indicators are suggested for assessment, but sites are encouraged to develop their own where appropriate. The scale and detail of assessment will vary depending on the time and funds available.
- *Tools should be chosen to complement current monitoring and assessment systems,* rather than replicating systems that are meeting current assessment needs.
- *Completing each tool does not have to be a separate exercise,* and in many cases several of the worksheets could be filled in during one workshop.
- *Qualitative and descriptive information* should be included in the worksheet to help new staff understand how the assessment was carried out.
- *Assessors' information* is important to record details of who participated and when the assessment was undertaken. This will help with follow-up to the assessment and is useful for future reference.
- *All the assessment tools include space for further narrative discussion.* This should be used for **comments and explanation** as to why an assessment was undertaken and **sources of information.** There is space for **analysis** and **conclusions** and **comparison** with previous assessments. This can help draw out **gaps and challenges, opportunities, recommendations and follow-up actions.**

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Developing the EoH toolkit - discussing the assessment of outputs in Serengeti National Park, UR of Tanzania.

Assessments are most useful if repeated regularly to track changes to threats and help identify progress and improvements. Intervals can vary depending on the management component being assessed (see Table 2.1). For example, inputs and outputs can be assessed annually (linked with annual reports, work plans and budgets), while context and outcomes might be assessed every 3-5 years, or linked with revisions of the management plan.

Table 2.1: Assessment frequency and links to management and reporting activities

Tool	Suggested frequency of use	Management activities and reporting requirements for which the assessment will provide information
Tool 1: Site values and objectives	Every 3-5 years (or following any major scientific study)	• Development/review of primary planning document (i.e. management plan) • Development/review of research priorities
Tool 2: Identifying threats	Every 3-5 years (more frequently if monitoring data on critical threats is available)	• Development/review of management plan • Development/review of research priorities • Major donor funded projects
Tool 3: Relationship with stakeholders/ partners	Every 3-5 years	• Development/review of management plan • Development/review of major stakeholder initiatives (e.g. resource access arrangements; tourism management plan)
Tool 4: Review of national context	Every 3-5 years	• After providing baseline data this should be used to assess major changes, e.g. new legislation/policy, signing international conventions or changes to management authority
Tool 5: Assessment of Management planning	Every 3-5 years	• After providing baseline data this assessment should be linked to the development/review/updating of the management plan
Tool 6: Design assessment	Every 3-5 years (or following major changes to park design, e.g. in size, boundary or tenure)	• Development/review of management plan • Development/review of research priorities • Development/review of community initiatives/projects • Initiatives related to land tenure • Initiatives related to expansion or decrease of site
Tool 7: Assessment of management needs and inputs	Annually	• Development/review of budgets • Annual reports/donor funded project reports • Development/review of annual work plans • Any projects related to major changes in the site (e.g. new infrastructure; additional staffing etc.) • Donor projects putting resources into the site • Development/review of business plan
Tool 8: Assessment of management processes	Annually	• Staff reviews • Operational review • Tourism plans • Annual reports/donor funded project reports • Development/review of management plan
Tool 9: Management plan implementation	Annually	• Annual reports • Development/review of annual work plans • Development/review of management plan
Tool 10: Work/site output indicators	Annually	• Annual reports • Development/review of annual work plans • Development/review of management plan • Development/review of business plan
Tool 11: Assessing the outcomes of management	Assessment of outcomes every 3-5 years (monitoring frequency determined in plan developed with this tool)	• Development/review of management plan • Annual reports/donor funded project reports • Report to other conventions (e.g. CBD, Ramsar, UNESCO Man and the Biosphere)
Tool 12: Review of Management Effectiveness Assessment Results	Every 3-5 years or whenever a complete assessment and report is produced	• Development/review of management plan • Report to Conventions (e.g. World Heritage, CBD, Ramsar, UNESCO Man and Biosphere)

Who should be involved in the assessment?

Ideally, all those involved in the management of a site should take part, including key stakeholder groups. In practice, involvement will vary between sites. General guidelines are:

- *Establish a team to lead the assessment:* including both key World Heritage site personnel (e.g. the site manager) and other individuals involved in management.
- *Stakeholder representatives:* for a rigorous assessment process, a team of stakeholder representatives is needed to work with managers to develop and agree upon monitoring and evaluation. Local people may have an intimate knowledge of a site but often little say in how it is managed, yet their views are closely bound-up with the site's overall success. Involving partners and local people can increase managers' understanding of key issues and can also make communities more supportive of the site.
- *Cultural values:* natural World Heritage sites also commonly have cultural and human objectives and the success of these needs to be assessed.
- *Addressing threats:* pressures often affect sites from outside their boundaries. Engaging a range of stakeholders is important, including, for example, those sections of government and industry that influence the site.

Stakeholder expectations

The suggested process assumes a high level of stakeholder involvement. This includes stakeholders being involved in contributing to and commenting on the assessment and, in many cases, also being actively involved in monitoring to provide data for the assessment. Stakeholders should be regularly informed about:

- the planning process for monitoring and assessment
- their own role in this
- opportunities to participate in the assessment
- issues that they will be asked about
- how their opinions will be used

© Robyn James

Community fish farmers adjacent to Mount Kenya National Park and World Heritage site.

- how they will be informed on progress and final outcomes
- how results will be used (reporting, adaptive management, etc).

It is important to consider how to manage any conflicts that may arise during the assessment.

Choosing between self-assessment or using 'facilitators'

It may help to involve external facilitators who will be impartial, bring a new vision, and have expertise in assessment. This can take pressure off site managers, for example, when required to identify weaknesses in government policy. World Heritage personnel and stakeholders may have limited experience of assessment and little time to participate. However, external facilitators or volunteers may have limited knowledge of the site and may be resented by staff.

Involving only those directly involved in management, in other words, carrying out a 'self-assessment', will cost less but results may lack credibility, especially regarding controversial issues. However self-assessment (particularly if written into a management plan) has the benefit of becoming a regular part of management, ensuring that staff members think about their own performance. Such assessments may be more readily applied at the site than those carried out externally.

One option is to have regular annual 'internal' assessments of certain management components, with external facilitators being involved in a review, perhaps every three to five years.

Developing an assessment process

Before the assessment starts it is useful to develop a plan or terms of reference (TORs) for the process which clearly states:

- the level and objectives of the assessment
- who will be involved (including team leaders, World Heritage staff and stakeholders)
- their responsibilities
- the timeline
- the structure of the final report
- the mechanisms for disseminating findings
- the mechanisms for incorporating results into management
- how relevant information will be archived.

Choosing the right tools

Once the TORs have been developed, the tools described here should be reviewed and a selection made. Sites may

choose to use all the tools or select only those that supplement existing monitoring and assessment. Whether tools need adapting, and how this can be done should also be discussed.

Activities involved in an assessment

The assessment is likely to include three activities for each tool, although these can usually be combined into one coordinated assessment process.

• *Data collection:* extracting relevant information from monitoring reports, research projects, journal articles, management plans, biological surveys and sighting records, operational plans, visitor records and stakeholder interviews. Many tools include space for detailing data that have been used, so that data strengths and weaknesses can be recorded.
• *Workshop/s or meetings to compile and verify worksheets:* Workshops can be held early on in the assessment process to gather data, compare it with the knowledge and experience of managers, staff and other stakeholders, and compile draft worksheets. Workshops held near the end of the assessment can discuss and revise draft worksheets or reports. It may be necessary to translate preliminary assessments into local languages. (See box entitled 'Stories from the field' in Keoladeo case study for hints and tips on developing stakeholder workshops.)

• *Preparation and dissemination of results:* Results can be presented in several ways, including verbal or written reports. In addition to the worksheets, a summary should be prepared describing the process and key issues that arose. For each recommendation, the agency, department or person responsible should be identified. Results need to be distributed, translated into local languages if necessary, with sections of the report targeted at specific community groups (e.g. local farmers or tourism operators).

Main steps in an assessment

Key steps are summarized below and in Figure 2.2

1. Compile relevant existing data.
2. Undertake any quick and inexpensive activities needed to carry out the assessment, e.g. agreeing management standards if these do not exist, or analysing threats.
3. Identify monitoring and data gaps that will require larger and more costly activities such as long-term monitoring programmes.
4. Use data obtained in steps 1 and 2 above, and through meetings and consultations, compile and analyse worksheets.
5. Adapt and improve management in response to the assessment results.

If the site does not have appropriate monitoring programmes for all the issues covered in the worksheets, the
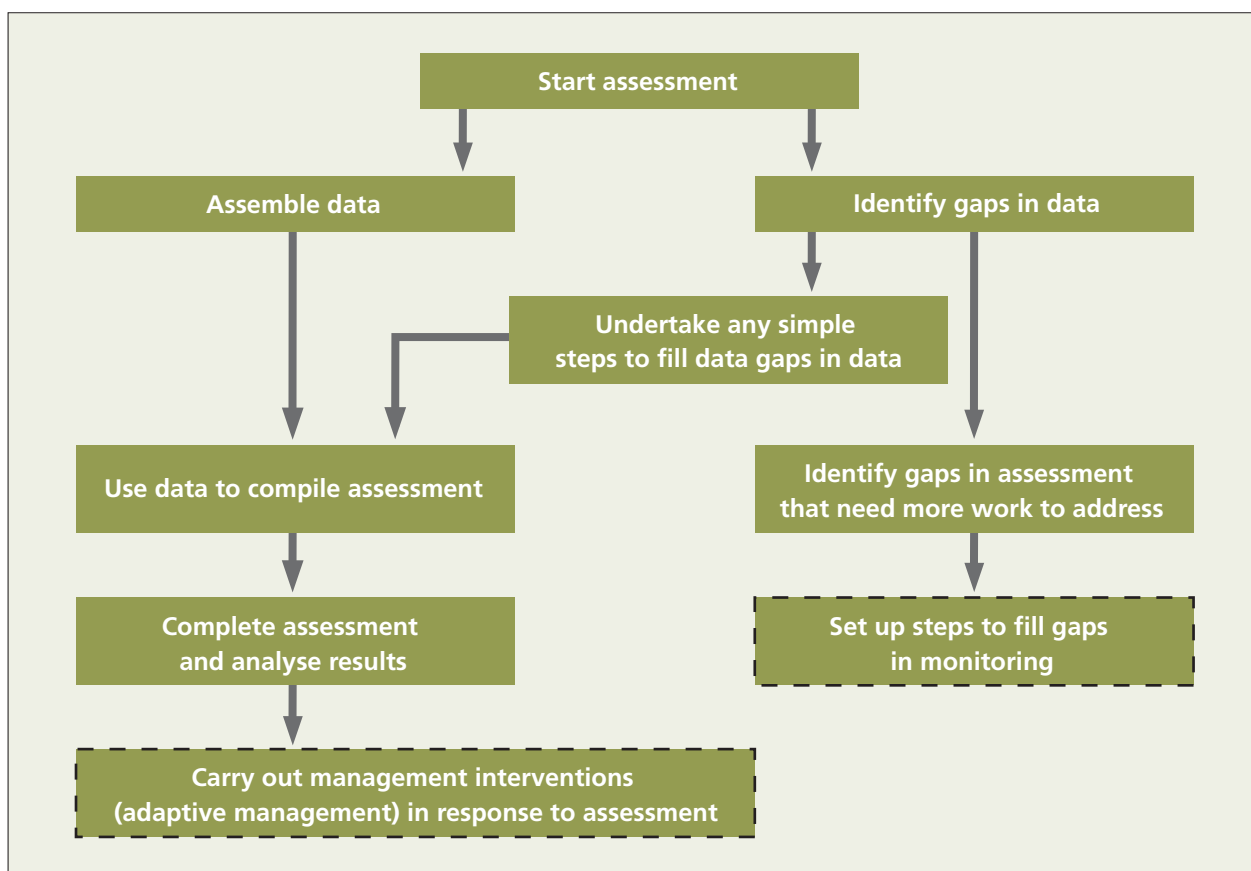
Figure 2.2: Summary of the assessment process.

Planning for an assessment of management effectiveness in Keoladeo National Park, India.

assessment will inevitably be incomplete. However, it will still provide useful management information. As monitoring systems are improved, subsequent assessments will be able to draw on better data.

A note on comparison and scoring

The tools presented here have been designed to track progress over time in one site, rather than to compare between sites. There is therefore no overall score for effectiveness, although some tools do use rating schemes as an aid to assessment.

Analysing and acting on the results of the assessment

Assessment information can be used in three ways:

1. B*y managers to improve their own performance through* **adaptive management** (i.e. using information from past performance to improve future management). Changes may range from minor adjustments to current management, to larger interventions where the assessment can support funding applications or help justify realignment of budget. In turn, changes to management practices can be fed back into future evaluations through, for example, revising indicators to reflect new management directions.
2. *To fill gaps in knowledge by improving* **monitoring and evaluation.** Where assessments have not been previously carried out, information from the first assessment can provide baseline data for monitoring. Where funding for evaluation is secure, longer-term monitoring may be possible, especially where evaluations have highlighted gaps in knowledge.
3. **Reporting on the state of natural World Heritage sites.** This is a key task for managers. Fulfilling reporting requirements is much simpler if reliable and detailed monitoring and evaluation results for a site are at hand.

Keeping a record of the assessment process and results

A lot of information will be collected as part of the process of the assessment. These records should be archived at the site along with assessment results and notes on process. Data and library material are valuable resources, particularly in cases of staff changes.

The Enhancing our Heritage Toolkit

Keeping a lookout for poachers at Kaziranga National Park, India.

© Nigel Dudley

The majority of this manual presents the *Enhancing our Heritage Toolkit*. Each of the twelve tools is described in detail. An introduction to each tool provides background, discusses the purpose of the tool, and gives guidance on the type of information that might be required to complete them. Each tool includes one or more worksheets, which are included here with step-by-step guidance.

Electronic versions of the tools can be downloaded from the World Heritage web site at: http://whc.unesco.org/en/eoh or on a CD available from the UNESCO World Heritage Centre. Other language versions (initially French and Spanish) of the toolkit will also be available via the World Heritage site.

Examples of the assessments carried out during the field-testing of the Enhancing our Heritage project can be found at: http://whc.unesco.org/en/eoh

Tool 1: Identifying Site Values and Management Objectives

This tool helps to identify and list major values of the site and associated management objectives. Together these provide a basis of what should be monitored and analysed during the assessment process.

Review information sources

- **Site nomination report**
- **Statements of Outstanding Universal Value or Significance**
- **Management and/or other planning documents**
- **Other reports**
- **Interviews**

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Identify major values

↓

Identify major values and their relationship to World Heritage status

↓

List principal management objectives and relate these to values where appropriate
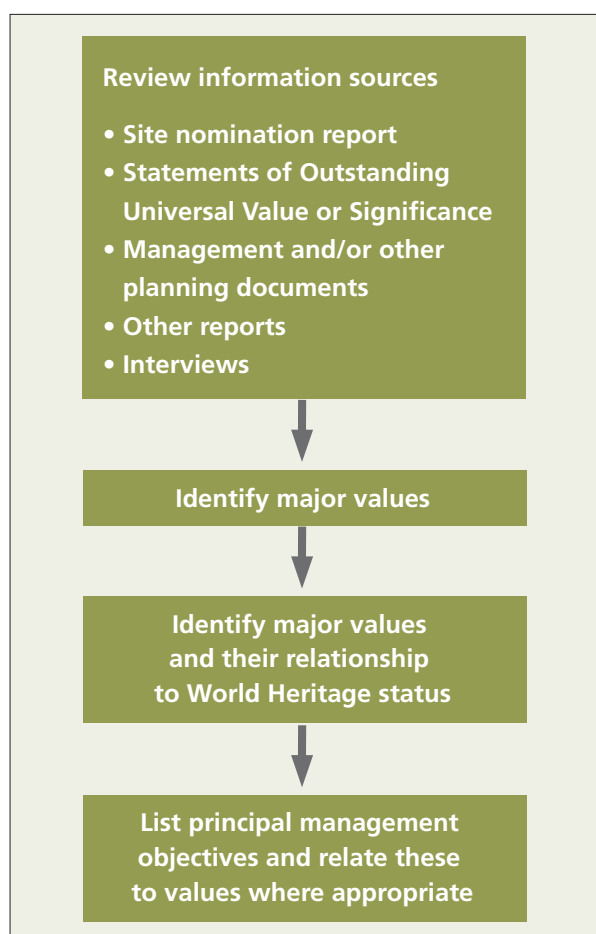
Figure 3.1: Recommended process for the identification of values and objectives.

The first step in an assessment of management effectiveness is to document the **major values of the site.** Maintaining these values should be of primary concern and be reflected in the management objectives for the site. Worksheets 1a and 1b are designed to document the major site values and to relate these to the **principal management objectives.** This documentation of values and objectives should inform the whole management effectiveness assessment process and, in particular, create a basis for the development of monitoring programmes (Tool 11).

Values are defined here as the natural, cultural or socio-economic attributes of the site. They include, in particular, those values which led to World Heritage listing. Statements of Outstanding Universal Value prepared for the site are a good place to start when compiling this list. For sites where biodiversity conservation is important, attributes may include:

- Ecological systems: e.g. assemblages of communities that occur together in a landscape/seascape that are linked by environmental processes.
- Ecological communities: e.g. globally threatened vegetation associations.
- Species: e.g. threatened and endangered species or species of special concern; assemblages of species with similar conservation needs.

In addition, site values should reflect any cultural, economic or social attributes that are locally, nationally or globally important to stakeholders, such as:

- Protection of water catchments and water quality.
- Economic benefits to local communities from tourism and other employment.
- Spiritual and/or cultural sites in the area.
- Social attributes including intangible aspects such as pride in the World Heritage area.

Identifying major site values

There are many values present in World Heritage sites. It is not usually possible to manage for each of these separately and managers therefore consciously or unconsciously have to group these into **major site values** that can help focus management. In some planning approaches such as The Nature Conservancy's Conservation Action Planning (CAP) system, these **major site values** are termed **Conservation Targets** because they represent the primary focus for management action.

An understanding of the **major site values** will help to inform the entire management effectiveness assessment process. In Tool 11, these major values are used to help select indicators that will provide an assessment of the extent to which the sites objectives are being maintained.

In the boxes below we give some examples, first for biodiversity and then for cultural, social and economic values, of

how to select 'major site values' from the long list of values that most World Heritage sites embody. In the following examples, major site values are highlighted in **bold**.

Examples of possible major site values for biodiversity
Instead of verifying the state of each individual species, this approach proposes selecting a few representative habitats or species for monitoring. If these remain in good condition, this implies that management of the site's overall ecosystem is satisfactory:

- *Values relating to several linked ecological systems are often a good basis for major site values. For example, fens, lakes, streams, swamp heaths and water quality can be incorporated within a single value addressing the integrity of* ***acidic freshwater systems*** *– on the assumption that the biodiversity within these ecosystems will be protected if the acidic freshwater systems as a whole are conserved.*
- *Conversely, a major site value can also sometimes be represented by an individual species that requires a range of ecosystems during its life cycle. For example, a* ***salamander*** *that moves from feeding in ponds to breeding and nesting in uplands will require the protection and maintenance of a range of ecosystems to ensure its survival.*

- *Major site values can sometimes be identified for a species or ecological community causing particular concern due to its rare or endangered state. Thus, in the Bwindi Impenetrable National Park in Uganda, the* ***mountain gorilla*** *- a critically endangered subspecies - represents a major site value for the park.*
- *Sometimes a major site value is chosen to represent a site's role as part of wider ecological networks that depend on a network of individual sites. For example* ***migratory birds*** *could reflect a site's importance either as a nesting site, a feeding point along a migratory route or an over-wintering site.*

Examples of possible cultural, social, educational and economic major site values
These values are best determined cooperatively with members of relevant local and indigenous peoples' communities.

- *Cultural values will vary considerably depending on factors such as the historical, religious and local attributes of the site. Major site values might consist of elements of material culture such as a collection of* ***rock art sites***, *or non-material culture such as* ***sacred natural sites*** *or* ***culturally significant areas*** *for a community.*
- *Social values are often related to access to the site's resources, and a range of 'well-being' issues such as*

subsistence, health (e.g. the existence of medicinal plants) or recreation. Major social values might be represented by factors such as the site's status as a ***recreational resource*** *for people from an adjacent urban area, or the availability of forest resources for* ***subsistence harvesting*** *by local communities. Social values should include the sense of* ***pride*** *people have for the site. A value is also attached when local people are recognized for their contribution to conservation of the area.*
- *Educational/research values will be important if the site is aiming to increase local and national understanding of its values and to promote research. Here a major site value might be* ***long-term ecological*** *research if the site, for example, provides a baseline against which changes in surrounding areas can be assessed.*
- *Economic values can be linked to* ***tourism income*** *or other income-generating activities and the extent to which the site contributes to the local, regional and national economy. Economic values can also relate to ecological services from a site. For example a mountainous or forested site may have a major site value relating to the* ***provision of water*** *for downstream irrigation and hydropower.*

Identifying principal management objectives

Many sites will already have clear management objectives stated in their management plans or other policy documents and legislation governing management of the site. Objectives are commonly organized in a hierarchical manner in management plans, moving from broad goals to specific actions. The aim here is not to list every park management objective, but instead to highlight principal management objectives that represent the most important goals for site managers (some examples are given in the box below).

Examples of possible management objectives
Sometimes objectives are closely aligned to values. To refer to some of the examples given earlier, for instance, broad objectives could include maintaining acidic wetlands, conserving the salamander species, or preserving specific sacred natural sites. In other cases, objectives will necessarily be more specific. Examples might include:

- *Restoring mangroves back to their original extent along a coastal fringe.*
- *Protecting a colony of cave- dwelling swiftlets.*
- *Working with coastal fishing communities to agree and implement a set of management arrangements for the site.*

> • *Maintaining a habitat necessary to specific endangered migratory wetland species.*
> • *Building an aware and supportive community through engagement and education.*
> • *Developing community- conserved areas on a specific proportion of the a site's buffer zone of the site.*

Distinguishing between values and objectives

'Values' in this case refers to what is important within the site, whereas 'objectives' are concrete management aims. The two should be clearly linked and each major value would normally be expected to have an associated objective. The values of the site express why the site is important to people (i.e. what they 'value' about the site), while objectives are more specific, relating to what site managers wish to achieve over time (i.e. desired management outcomes). Objectives can be translated into work programmes through planning processes that specify strategies and actions intended to achieve the desired outcomes of management. The values and objectives should act as an aide *memoire* for the whole assessment system. When we reach the stage of monitoring outcomes of management – which should reflect whether the core values of the site are being maintained – it is particularly important to ensure that all the most important site values are reflected in management objectives, which can in turn be translated into indicators for long-term monitoring (see Tool 11). Distinguishing between values and objectives seems easy, but in reality frequently causes confusion.

What to do if there are no management objectives

In some cases, sites may lack a management plan, or the objectives identified in the plan may be incomplete or unclear. This toolkit is not a methodology for developing management objectives and should not be used to replace the planning process. If management objectives are missing, unclear or inadequate, this indicates a need to develop or improve the management plan for the site – and management objectives should emerge naturally from this process. For example, in the Sangay National Park in Ecuador, the initial management assessment undertaken using this toolkit identified the need to revise the management plan to ensure the objectives better reflected the site's values and management challenges. The agreement of key objectives is the *cornerstone* of site planning and management, and not something that should be rushed through hurriedly at the start of an assessment.

Completing Worksheets 1a and 1b

Tool 1 of the toolkit aims to identify the most significant aspects of a World Heritage site in terms of the values it seeks to maintain. These should be borne in mind throughout the assessment process. Perhaps most importantly, the status of these values and the achievement of objectives can be assessed using the tools suggested in the section on outcome monitoring (Tool 11).

Worksheet 1a: Identifying major site values and objectives

1. The worksheet focuses first on identifying the major site values (column 2), arranged according to the subheadings given in column 1. These may be narrowed down from a longer and more detailed list. Major site values will include the World Heritage values for the site, which can be obtained from the nomination document or from the statement of Outstanding Universal Value. Additional site values may be found in site management plans and inferred from other source such as scientific literature, fauna and flora surveys, vegetation mapping, discussions with local communities or other reports and interviews.

2. Next is a column used to identify which of these values are also World Heritage values (column 3) and thus particularly relevant to the assessment. These are also the values to be reported on during World Heritage Periodic Reporting. If a particular value corresponds to one of the agreed World Heritage values this column should also record the relevant UNESCO World Heritage criteria (i to x – using the revised World Heritage criteria numbering scheme) for which the site was nominated as a World Heritage site (listed on the nomination document). All the listed World Heritage values should appear on the worksheet.

3. The fourth column lists the information sources used to determine the values, including documentation and/or workshops held to discuss site values.

4. Space is provided for a narrative analysis of the assessment, any changes undertaken since the last assessment, identification of gaps and challenges, and follow-up actions.

Worksheet 1b: Documenting management objectives and their relationship to site values

1. All principal management objectives are first listed (column 2) drawing in particular from the site management plan and other relevant documents; these are then arranged under the various subheadings shown in column 1.

2. These objectives are, wherever possible, linked to specific values, drawn from Worksheet 1a (column 3). There may be more than one value linked to a particular management objective and vice versa.

3. Sources for the various objectives are given in column 4 (e.g. management plans and annual work plans).

4. Space is provided for a narrative analysis of the assessment, any changes made since the last assessment, identification of gaps and challenges, and follow-up actions.

Once the draft site values and management objectives worksheets have been compiled from existing information, they should be reviewed and validated by experts and stakeholders. Based on comments and feedback, the worksheet can be refined to determine the final list of site values and management objectives.

Worksheet 1a: Identifying major site values and objectives

Value subheadings	Major site values	Is this a World Heritage value? (list World Heritage criteria numbers)	Information sources used for determining the values
Values can be broken down into subgroups as suggested below. Some assessments can be carried out using these groupings.	*List major values here. There are many specific values present in World Heritage sites. It is not possible to manage each value separately. Instead, group these into a few **major values** that can help focus management efforts (see examples in the guidance notes).*	*Note here if a particular value is also officially recognized in the World Heritage nomination document and identifies the relevant World Heritage criterion. There are 10 criteria in the World Heritage Operational Guidelines used as a basis for World Heritage listing. World Heritage properties will be listed on the basis of one or more of these criteria.*	*List all information sources such as the park gazettal notice, World Heritage nomination document, park management plan, research reports etc. used in identifying major values.*
Biodiversity values			
Other natural values			
Cultural values			
Economic values			
Educational values			
Other social values			
Analysis and conclusions			
Comparisons with previous assessments			
Gaps and challenges			
Opportunities, recommendations and follow-up actions			

	Principal objectives	Major values linked to principal objectives	Information sources used for determining objectives
Worksheet 1b: **Documenting management objectives and their relationship to site values**			
	List Principal Management Objectives (from park management plan or other source documents) grouped according to the major values they relate to.	*Identify major values related to this objective (there may be more than one value related to a principal management objective)*	*Give the source of the particular objective (e.g. management plan, work plan etc)*
Biodiversity values			
Other natural values			
Cultural values			
Economic values			
Educational values			
Other social values			
Analysis and conclusions			
Comparisons with previous assessments			
Gaps and challenges			
Opportunities, recommendations and follow-up actions			

Tool 2: Identifying Threats [2]

This tool helps managers to organize and report changes in the type and level of threat to a World Heritage site and to manage responses.

Reducing and eliminating threats is an important aspect of effective management of World Heritage sites. Threats should be identified at an early stage of management planning, so that monitoring programmes can be developed with appropriate indicators and managers can be guided towards priority management activities.

World Heritage sites often face many threats, which typically have a complex set of **causes** and **impacts** (i.e. consequences). To help understand this complexity the following tool helps managers to consider the relationships between the causes and impacts of threats, and also helps to plan what responses should be put into place urgently by concentrating on those threats most likely to impact the site's major values.

- **Threats** are major problems facing a site, such as forest loss or degradation of a coral reef.
- **Causes** of threats are the various reasons why, to follow the examples above, forest is disappearing (e.g. illegal logging and agricultural encroachment) or coral is degrading (e.g. tourist over-use, global warming).
- **Impacts** of threats are knock-on problems that result (e.g. for forests, an impact could be soil erosion or loss of connectivity between forest fragments; for coral reefs, loss of fish species and human well-being impacts from reduced food sources).

Although this seems at first relatively simple, this worksheet has proven to be one of the most difficult for sites to complete. In particular, there was frequent confusion between 'threats' and the 'causes of threats'. The relationship between threats, causes and impacts is outlined in the figure below.

Separation of the causes and impacts of threats is important for management because:

- It allows managers to develop better strategies for threat abatement by tackling the actual causes of the threat. If the causes cannot be eliminated entirely, it may be possible to develop management interventions that will help reduce their impacts.
- As threats can create more than one impact, management activities can be prioritized according to the causes responsible for the gravest and most numerous impacts or problems at the site.

Note that this worksheet concentrates mainly on direct causes – which the manager can address on site – rather than underlying causes, such as poverty, global trade balance, gaps or inadequacies in national legislation etc.

Threats can also be divided into **current threats** (sometimes called pressures) and **potential threats**. **Potential threats** could happen, but are not currently taking place. A list of potential threats can be drawn up by considering the natural, social, political, cultural, legal and demographic trends at the site that might lead to a negative impact. The likelihood of this occurring should be weighed against the need for management action, and only those that are most likely to happen and will have a significant impact should be listed. Listing all possible threats would risk diversion of management efforts away from the highest priority current and potential threats. Listing potential threats is particularly important when developing contingency plans (i.e. plans for emergency actions to be taken in the event of sudden and serious impacts such as an oil spill).

Completing the Worksheet for Tool 2

1. The first task is to identify the most important threats that are affecting or are likely to affect the value/s (column 1). Only those threats that cause particular

Causes	Threats	Impacts
Illegal logging **Agricultural expansion** **Misuse of fire**	**Forest loss**	**Loss of connectivity** **Soil erosion** **Destruction of wildlife habitat** **Threats to rare plant species**

Figure 3.2: Relationships between the causes and impacts of threats.

2. This tool was inspired by TNC's Five-S Framework for Site Conservation and Richard, M. and Salafsky, N. 2001. *Is Our Project Succeeding: a guide to threat reduction assessment for conservation*, Biodiversity Support Program, Washington DC.
The full Five-S Framework can be downloaded from: nature.org/summit/files/five_s_eng.pdf.
Is our project succeeding can be found at: www.fosonline.org/images/Documents/tra.pdf.
For reference purposes assessors may also be interested in reviewing the IUCN/Conservation Measures Partnership (CMP) Unified Classifications of Direct Threats at http://www.conservationmeasures.org/CMP/IUCN/Site_Page.cfm

concern and are likely to have a major impact on site values and achievement of objectives should be listed. It is important to consider the range of values that may be threatened (e.g. focus not just on threats to biodiversity, but consider also threats to cultural values or resident human communities).

2. Next, threats are linked to a particular value(s) of the site (refer back to Worksheet 1a if necessary). Threats may also affect more than one value (column 2)

3. These threats can be identified as either current or potential (column 3).

4. For each threat, the main causes should then be identified (column 4).

5. The status of the threat is then reviewed along with any actions that can be taken to reduce the impact of the threat. The worksheet covers four characteristics of a threat that together summarize its impacts, and the management actions that can be taken. Providing descriptive text for all these characteristics will provide a richer assessment, however assessors may also wish to make an assessment against a set rating making future assessments easier to compare. Ratings are suggested below for the extent and severity of the threat impacts and the urgency of action, all of which can be adapted to suit the site's needs. Each of the four steps is described below.

6. *Extent:* the extent to which the value is being or is likely to be impacted by the threat is assessed (column 5). For biological values this may be measured, for example, as the proportion of a particular habitat being impacted or the proportion of the species' population being affected. For social values, it may be the number of community groups or community members that are impacted. If a numerical rating of extent is required then the following four-point scale could be used: Low (10% or less of the value is threatened); Medium (11-25% of the value is threatened); High (26–75% of the value is threatened); Very High (76–100% of the value is threatened).

7. *Severity:* the severity of impact caused by the threat is then estimated (column 6). For example, within the affected area, will the threat completely destroy the habitat(s) or will it cause only minor changes? For cultural values, will the threat destroy species or places of cultural significance, or does it threaten local livelihoods? A four-point rating scale could be used: Low (within the affected area, the threat is having only a minor or barely detectable impact on the value); Medium (within the affected area, the threat is having a detectable impact but damage is not considered significant.); High (within the affected area, the threat

will lead to a significant reduction of the value if it continues to operate at current levels); Very High (within the affected area, the threat is likely to lead to a loss of the value in the foreseeable future if it continues to operate at current levels).

8. *Action:* the actions planned or which have already taken place to manage the threat are also listed (column 7). These actions can either be directed at eliminating or at managing the impacts of the threat.

9. *Urgency of action:* an indication of the immediacy of the threat is given (column 8); for example, is the impact of the threat likely to become irreversible if not addressed soon? If a rating is needed then the following four-point scale could be used: Low (management action is not urgent and if action is not taken the threat will not substantially increase in the medium-term); Medium (the management action is not urgent but if action is not taken the situation will deteriorate in the medium-term); High (action must be taken as soon as possible or the impact of the threat will increase in the short-term); Very High (immediate action is needed to stop the threat leading to serious long-term or irreversible damage to the value).

10. *Data source:* finally column 9 should record whether the assessment has been made via an expert workshop or the results of monitoring or research.

11. At the end of the worksheet, space has been left to add *Comments/explanation* and discuss *Comparisons with previous assessments.* Space is also given to record the *Analysis and conclusions*, in addition to any *Gaps* and *challenges and Opportunities, recommendations and follow-up actions.*

Worksheet 2: Identifying Threats

List Threats	List values threatened	Current or Potential Threat?	Identify major causes of threat	Impact of threat		Management response		Data source
				Extent	Severity	Action	Urgency of action	
List of all important threats	*List any site values affected by the particular threat.*	*Distinguish between current threats already taking place and potential known threats that have not yet occurred.*	*List activities which are causing or contributing to the threat. Each threat has at least one - and may have several - causes.*	*Describe the extent of the impact, e.g. area, habitat type, cultural value (rate as Low, Medium; High or Very High).*	*Describe the severity of the threat impact on the value (rate as Low, Medium; High or Very High).*	*Describe what actions are planned or have taken place to manage the threat.*	*Estimate and/or rate as Low, Medium; High or Very High the urgency of action needed.*	*Record whether the assessment has been made via expert work-shop or using results of monitoring, research etc.*
		☐ **Current** ☐ **Potential**	1.					
		☐ **Current** ☐ **Potential**	2.					
			1.					
			2.					
			1.					
			2.					

Comments/explanation	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Tool 3: Relationships with Stakeholders

This tool helps to identify stakeholders and their relationship with the site.

Effective management usually includes engaging with stakeholders who influence (both positively and negatively) the site's values, and who may be dependent on the site's resources. This requires involving parties other than managers in assessment processes to gain additional perspectives on the World Heritage site and its management. Local communities are a particularly important stakeholder group to engage. The following information should be collected to identify the relevant stakeholders and place their relationship with the site into context:

• Who are the stakeholders?
• What is their relationship to the site and its values?
• What is their level of engagement and
  participation?

In ideal circumstances, the involvement of stakeholders in management and assessment should involve a more participatory relationship than just consultation. The organization of a workshop with relevant stakeholders is recommended to identify and review stakeholder involvement at the site.

Completing Worksheet 3

The following section proposes one worksheet to assess stakeholder relations; however, some sites may prefer to separate this into worksheets for stakeholders that relate to individual values or groups of site values (e.g. stakeholders that interact with the site in relation to a particular species or all biodiversity values).

Worksheet 3 is presented in the form of a matrix, with different stakeholder groups listed in columns, and rows containing, first, a series of ten questions regarding stakeholder relations requiring a written response, and second, two questions assessing the quality of stakeholder relations to be answered using a rating system.

1. The first step is to identify all important stakeholder groups relating to the World Heritage site. This list should aim to include stakeholders that:

   • have an interest/connection with the World Heritage site, particularly relating to the site's major values
   • have any interaction with the site management
   • have a current or potential impact on the management of the site
   • are affected by the site's management.

The list may include, for example: the local population (i.e. indigenous and non-indigenous communities inside and outside the World Heritage site), municipal and state government, armed forces, religious organizations, develop-

ment banks, non-governmental organizations, research organizations, development agencies and industry (e.g. logging, mining, large-scale agriculture or fishing). Consider both active stakeholders (i.e. those that are participating with site managers) and inactive stakeholders (i.e. those not participating). The latter sometimes represent sizeable economic interests (i.e. large-scale resource users such as logging companies and fishing fleets), or those who resent site protection and do not wish to cooperate with site managers.

From this list, a selection should be made of the most important stakeholder groups who are or should be the focus of management action at the site (the number will depend on the site's management capacity to engage with stakeholders, but is likely to be between five and ten stakeholder groups). These key stakeholder groups are then listed as columns along the top of the worksheet matrix.

2. The worksheet requires the identification of the main ways that each stakeholder group interacts with the site (both positive and negative), and their relationship with site management. This information is divided into ten sections, each represented by a row on the matrix. These are described below in more detail:

   • *Main issues associated with this stakeholder:* List the main issues of concern to either the stakeholder group or the site managers which relate to interactions between the site and the group.
   • *Dependency of stakeholders on the site:* Explain how, and to what degree, the stakeholder group is dependent on the site value(s) for their economic well-being or for other benefits.
   • *Impacts – Negative impacts of stakeholders:* Describe the nature and extent of any direct physical impacts of the particular stakeholder group that negatively affect site value(s). For example, do stakeholders still extract resources from the site such as timber? Note whether these are legal or illegal.
   • *Impacts – Negative impacts on stakeholders:* Describe any negative impacts of the World Heritage site on the stakeholder group. For example, were communities displaced when the site was declared? Are they excluded from traditional hunting grounds?
   • *Impacts – Positive impacts of stakeholders:* Describe the nature and extent of any impacts of the particular stakeholder group that positively contribute to the health and quality of site value(s). For example, do local tourism guides alert rangers to problems? Does surrounding land use provide connectivity for the site?
   • *Impacts – Positive impacts on stakeholders:* Describe any direct positive benefits of the site to the stakeholder group. For example, does the site provide employment opportunities for local people? Does a forested area provide catchment protection and improved water quality for local people? Do tourism ventures benefit from the unique site values?

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Chitwan National Park in Nepal has developed strong relationships with communities living in the buffer zones of the park.

- *Willingness/capacity to engage of stakeholders:* Describe the stakeholder group's willingness to participate in management of the site value(s), and under what terms or conditions this engagement takes place.
- *Willingness/capacity to engage of site management:* Describe the site management's relationship with the stakeholder group. What is the capacity (including resources) for engagement? (For example, it may be difficult to engage a large number of stakeholder groups when the site has limited staff.)
- *Political/social influence:* Describe the stakeholder group's relative political or cultural leverage or influence on the site value(s).
- *Organization of stakeholders:* Describe how and to what degree the stakeholder group is organized, relating to efficient and effective engagement in management. Are there any specific community institutions that facilitate engagement?

3. The final rows are an assessment of the identified stakeholder group's engagement in the site. The first is descriptive, the second uses a rating system. They examine:

- *What opportunities do stakeholders have to contribute to management?* Describe the nature and extent to which stakeholder groups contribute to decision-making in relation to site value(s). Are there formal or informal management agreements in place?
- *What is the level of stakeholder engagement?* Describe the actual engagement of the stakeholder group with regard to management of the specific value(s). Are stakeholders regularly consulted regarding management of this value? Where possible, provide details of the nature and extent of engagement. Local communities may be 'engaging' with the forest guard on a daily basis, but that does not mean that they are in any way contributing to park management, or that their views are being heard.

The stakeholder groups, their impacts and their level of engagement can be summarized in the last question using an overall rating as follows:

- Very good: more than 75% of aspects of the relationship are positive
- Good: 51 to 74% of the aspects of the relationship are positive
- Fair: 26 to 50% of aspects of the relationship are positive
- Poor: 25% or less of the aspects of the relationship are positive.

This rating exercise can be carried out initially by managers, but should ideally be reviewed by the stakeholders concerned at a site-level workshop of stakeholders and partners involved in management of the site.

It is very important to write detailed comments and justifications for ratings and other conclusions given in the assessment. A comparison should be made with any previous assessments to identify whether the situation is changing. An analysis of the assessment will reveal areas where follow-up action is required, and may also identify areas where relationships are working well. A rating without explanation will be meaningless to stakeholders and other staff not involved in the assessment process.

4. A final section at the bottom of the table allows for discussion and analysis of the assessment, identification of any gaps or challenges that remain, changes since the last assessment, and overall follow-up actions, opportunities or recommendations.

Worksheet 3: **Engagement of Stakeholders**						
Identify major stakeholders with an interest/connection with the site	**Issues to assess**	**Name of stakeholder group**	**Name of stakeholder group**	**Name of stakeholder group**	**Name of stakeholder group**	**Comments/ Explanation**
List the main issues affecting either the stakeholder group or the site.	*Main issues associated with this stakeholder.*					
How, and to what extent are stakeholder groups dependent on the site value(s) for economic or other benefits?	*Dependency of stakeholders on site.*					
What is the nature and extent of any negative physical impacts on site value(s)? For example, do stakeholders still extract resources from the site such as timber? Note whether these are legal or illegal.	*List negative impacts of stakeholders on site.*					
What are the negative impacts of the World Heritage site on the stakeholders? For example, were communities displaced when the site was declared? Are they excluded from traditional hunting grounds?	*List negative impacts of site management on stakeholders.*					
What is the nature and extent of any positive impacts of the stakeholder group on site value(s)? For example, do local tourism guides alert rangers to problems? Does surrounding land use provide connectivity for the site?	*List positive impacts of stakeholders on site.*					
What are any direct benefits of the site to the stakeholder group? For example, does the site provide employment opportunities for local people? Does a forested area provide catchment protection and improved water quality for local people? Do tourism ventures benefit from the site values?	*List positive impacts of site management on stakeholders.*					
What is the stakeholder group's receptivity to participating in management of site value(s)? Under what terms or conditions?	*Willingness/ capacity of stakeholders to engage with site management.*					
What is site management's relationship with the stakeholder group? What is the capacity (including resources) for engagement?	*Willingness/ capacity of site management to engage with stakeholders.*					
What is the stakeholder group's relative political or cultural leverage or influence on site value(s)?	*Political/social influence.*					
How and to what degree is the stakeholder group organized, relating to efficient and effective engagement in management? Are there any specific community institutions that facilitate engagement?	*Organization of stakeholders.*					

Understanding Stakeholders

	Identify major stakeholders with an interest/connection with the site	Issues to assess	Name of stakeholder group	Name of stakeholder group	Name of stakeholder group	Name of stakeholder group	Comments/ Explanation
Assessment of stakeholder engagement	Describe the nature and extent to which the stakeholder group contributes to decision-making in relation to site value(s). Are there formal or informal management agreements in place?	*What opportunities do stakeholders have to contribute to management?*					
	Describe the actual engagement of the stakeholder group in the management of the specific value(s). Are stakeholders consulted regularly regarding value management? Where possible, provide details of the nature and extent of engagement.	*What is the level of stakeholder engagement?*					
Summary	Based on the information above, provide a brief description of the overall picture of stakeholder engagement.	*Describe the overall adequacy of stakeholder engagement.*					
Rating	Very good: more than 75% of aspects of the relationship are positive Good: 51 to 74% of the aspects of the relationship are positive Fair: 26 to 50% of aspects of the relationship are positive Poor: 25% or less of the aspects of the relationship are positive.	*Rate the overall adequacy of stakeholder engagement, as either: Very good, Good, Fair or Poor.*					

Comments/explanation	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Tool 4: Review of National Context

This tool helps develop an understanding of how national and international policies, legislation and government actions affect the World Heritage site.

To put the management and management effectiveness of a site into context, it is important to know whether the national and local government is supportive of the site, and the degree to which legislation is helping to maintain World Heritage values. This includes an understanding of both whether policies are adequate, if they are being followed through in practice, and a review of the relationship with the agencies involved in supporting site management.

These are often difficult questions for site managers to answer as they may have political connotations (site managers may encounter difficulties if they are perceived as critical of their employers), but it is nevertheless important to attempt to record this information.

Completing Worksheet 4

This part of the assessment involves reviewing the context within which the site is managed, including the legal and political context, and the extent of government and agency support for site management, as follows:

1. A series of policy areas are recommended in the worksheet and other relevant issues can be added depending on the circumstances (column 1).

2. The assessment is made by reviewing the strengths (column 2) and weaknesses (column 3) of each policy area. The questions in the table below provide examples of the issues which could be considered in this assessment, but individual sites will often want to add or subtract from this list. Although the answers will be qualitative, they provide valuable background information about the conditions in which managers operate.

Examples of the kinds of questions to be addressed in Worksheet 4

Policy areas	Questions to guide the assessment
World Heritage site and associated legislation	• How adequate is the legislation, i.e. does it provide a strong enough framework to preserve the values of the site? • To what extent is the legislation used? • Is the legislation effective, i.e. has enforcement of the legislation helped to preserve World Heritage values?
Conservation within broader government policy	• How high does conservation rank relative to other government policies, e.g. is there a dedicated ministry? • Does other government policy relevant to this site contradict or undermine conservation policy? • Is there a conscious attempt to integrate conservation within other areas of government policy? • Are policies implemented, i.e. has the necessary legislation been enacted?
International conservation conventions and treaties	• What international conservation conventions and treaties relevant to the management of this site has the government signed up to, and how adequately have these been implemented, e.g. CBD (Convention on Biological Diversity), CITES (Convention on International Trade in Endangered Species), Ramsar (Convention on Wetlands), Convention on Desertification, etc? • Are these conventions and treaties reflected in national law?
Government support (national and local) for the World Heritage site	• How willing is the government to fund the World Heritage site? • Does the government have the capacity to match its willingness in terms of money, staff, training, equipment, etc?
Management authority support for the World Heritage site	• What is the relationship between site level staff and the management authority, e.g. what proportion of the authority's budget goes to field operations? How many times a year does authority staff visit the World Heritage site?
Legislation/policy affecting community participation in site management and sharing of benefits	• Is national legislation and/or policy hampering the involvement of local communities in site management? • Does legislation and policy affect the way communities access the site and its resources? • Are there legislative or policy arrangements with regards to benefit sharing?

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Forest policy can often impact World Heritage site values and management. In the Greater St Lucia Wetland Park in South Africa eucalypt plantations are slowly being cleared and active rehabilitation is occurring.

3. The worksheet also provides space to record comments and explanations which help explain the assessment of strengths and weaknesses (column 4).

4. At the end of the worksheet, space is provided to record an analysis of the assessment and conclusions which can be drawn in terms of effective management and any changes since the previous assessment. This is followed by a section to record gaps and challenges, which are particularly important in this assessment as it is difficult for managers of individual sites to exert much influence on national or even local policy and legislation. Finally, space is provided to identify opportunities, recommendations and any follow-up actions which relate to this assessment.

Worksheet 4: **Review of National Policy Context**

Policy areas	Policy name/ description	Strengths	Weaknesses	Comments/ explanation
	Describe the specific legislation/policy/ treaties or conventions for the site	*Record how the policy supports management of the site values/objectives*	*Record how the policy can impede management of the site values/objectives*	
World Heritage site and protected area legislation				
Conservation within broader government policy				
International conservation conventions and treaties				
Government support for the World Heritage site				
Management authority and the World Heritage site				
Legislation/policy affecting community participation in site management and sharing of benefits				
Add additional criteria here				
Add additional criteria here				
Analysis and conclusions				
Comparisons with previous assessments				
Gaps and challenges				
Opportunities, recommendations and follow-up actions				

Tool 5: Assessment of Management Planning

This tool helps to assess the adequacy of planning used to guide the management of the World Heritage site.

Repeated surveys show that protected areas with established, current management plans are likely to be more effective than those lacking plans or with plans that are out of date. It is likely that this situation is the same for World Heritage sites.

At their best, management plans can:

• provide clear direction for the site
• link management objectives to site values
• direct activities and work plans focused on achieving these objectives
• involve stakeholders
• be linked to budgets and available resources
• have measurable and achievable targets.

This assessment tool helps review the process of developing and applying a management plan. It can help highlight parts of the plan that are working well, and where necessary, the parts that may require revision.

There are two worksheets for this tool. Worksheet 5a collects information on the extent and status of planning undertaken for the site, listing all the relevant plans and recording details about them. Worksheet 5b assesses the nature and adequacy of the planning systems and processes that have been employed. Where multiple planning documents are employed (e.g. management plan, fire plan, weed plan etc.), Worksheet 5b should concentrate on the main planning document for the site. This is usually the general management plan, but if none exists, the primary documents used to guide management planning (e.g. annual work plan) should be assessed.

Completing Worksheets 5a and 5b

Worksheet 5a: Management planning information sheet

1. As a first step, it is useful to list the existing and proposed planning documents for the World Heritage site (e.g. management plan, zoning plan, specific plans for fire, tourism etc.) in column 1.

2. Next, the level of approval for these plans is recorded - from draft plans with no formal approval to fully approved legal documents (column 2) – using a standardized rating system listed in the Worksheet (this can be amended as required to match local country systems).

3. The extent to which the plan is up to date is also recorded, including the date of approval or, if still in draft form, the date when the draft was prepared (column 3) and the dates of any recent revisions (column 4).

4. Space is given to record comments on the adequacy and currency of the document, and if it is integrated with other planning documents used by the site (column 5).

5. Sections at the bottom of the table provide room to discuss conclusions drawn from this brief assessment, record gaps, and note changes from the last assessment and next steps.

5b: Adequacy of Primary Planning Document

The second step is to carry out an assessment of the primary decision-making document. This is based on four principles of effective management planning:

• The plan should provide a sound **decision-making framework.** In other words, it should provide a clear vision of the desired future for the area based on the major site values; a set of strategies and actions for achieving this future and clear guidance to assist managers in dealing with opportunities and eventualities that arise during the life of the plan; it should provide a basis for monitoring implementation of the plan and progress towards the desired future and adjustment of planning strategies and actions as required.
• The plan should place the management of the area into the relevant environmental, social and economic **planning context.** Where possible, planning decisions should be integrated into this broader planning framework.
• The **content** of the plan should be formulated within an adequate and current information base and should place management issues within a broader context. The needs and interests of any local and indigenous communities and other stakeholders should be considered when formulating a desired future for the area.
• The plan should provide a **programmed and prioritized set of actions** for its **implementation.**

Worksheet 5b consists of 14 multiple choice questions aimed at gathering this information, under the four headings explained above. The worksheet contains the following sections:

1. Column 1 lists the questions to be used for assessing the extent to which the plan meets these principles.

2. Four possible responses for each question are given (column 2), which equate to a four-point rating system (Very Good, Good, Fair or Poor). These questions and responses may need to be amended to match the standards and expectations of site planning systems, particularly where a plan other than the management plan is being assessed.

3. Once the most suitable response to a particular question has been chosen, the relevant box is ticked (column 3).

4. An explanation of the ranking and any other comments are given (column 4).

5. The last column is for recording the management actions (next steps) that are needed, given the results (rankings) of each question.

6. A final section at the bottom of the table allows for any discussion and analysis of the assessment, identification of any gaps or challenges that remain, any changes since the last assessment, and overall follow-up actions, opportunities or recommendations.

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The development of a new General Management Plan in Serengeti National Park, UR of Tanzania, provided the EoH project with an ideal opportunity to refine assessment tools relating to planning.

Worksheet 5a: Management Planning Information Sheet

Name of plan	Level of approval Level of approval (L, G, A, SA, D)*	Year of preparation, or most recent review	Year speci- fied for next review	Comments/Explanation
	See key below for details of rating system			*Comments should concentrate on the adequacy, currency and integration of the plan with other planning instruments*

L = plan has force of law (i.e. has been approved by parliament or is a legal instrument)
G = plan has been approved by government but is not a legal instrument
A = plan has been approved at Head of Agency level
SA = plan has been approved at a senior level within the agency
D = plan is a draft and has not been formally approved

Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Worksheet 5b: **Adequacy of Primary Planning Document** **Name of document assessed:**				
Question	**Possible responses**	**Rating**	**Comments/ Explanation**	**Opportunities, recommendations and follow-up actions**
Issue being assessed	*Choose one of the four responses, ranked from Very Good to Poor. The questions and responses can be refined to suit individual site needs*	*Tick box*	*Add any comments or explanations as to why the assessment was made*	*Discuss any recommendations or next steps in terms of actions which need to be taken following this assessment*
Decision-making framework				
1. Does the plan establish a clear understanding of the desired outcomes of management in clear terms rather than just specifying actions to be taken?	**Very Good:** Desired outcomes are explicitly articulated			
	Good: Desired outcomes are reasonably articulated			
	Fair: Desired outcomes are not clearly articulated but are implied or can be inferred from plan objectives			
	Poor: Plan focuses more on actions and doesn't indicate the desired outcomes for the site			
2. Does the plan express the desired future for the site in a way that can assist management of new issues and opportunities that arise during the life of the plan?	**Very Good:** Desired future is expressed in a way that provides clear guidance for addressing new issues and opportunities			
	Good: Desired future is expressed in a way that gives some guidance for addressing new issues and opportunities			
	Fair: Desired future is not clearly articulated and provides only limited guidance for addressing new threats and opportunities			
	Poor: Plan focuses more on present issues and doesn't provide guidance for addressing new threats and opportunities			
3. Does the plan provide for a process of monitoring, review and adjustment during the life of the plan?	**Very Good:** Plan provides a clear, explicit and appropriate process for monitoring, review and adjustment			
	Good: Provisions for monitoring, review and adjustment of the plan are present but are incomplete, unclear or inappropriate in some minor respects			
	Fair: Need for monitoring, review and adjustment is recognized but not dealt with in sufficient detail			
	Poor: Plan does not address the need for monitoring, review and adjustment			
Planning context				
4. Does the plan provide an adequate and appropriate policy environment for management of the World Heritage site?	**Very Good:** Policy requirements for the site are identified and adequate and appropriate policies are established with clear linkages to the desired future for the site			
	Good: Policy requirements for the site are identified and policies are largely adequate and appropriate although there are gaps			
	Fair: Policies in the plan are inadequate or incomplete in many respects			
	Poor: Plan either doesn't establish policies for the area or policies are inadequate or inappropriate in major respects			

Question	Possible responses	Rating	Comments/ Explanation	Opportunities, recommendations and follow-up actions
5. Is the plan integrated/linked to other significant national/regional/ sectoral plans that influence management of the World Heritage site?	**Very Good:** Relevant national, regional and sectoral plans that affect the site are identified and specific mechanisms are included to provide for integration or linkage now and in the future			
	Good: Relevant national, regional and sectoral plans that affect the site are identified, their influence on the site is taken into account, but there is little attempt at integration			
	Fair: Some relevant national, regional and sectoral plans are identified but there is no attempt at integration			
	Poor: Other plans affecting the site are not taken into account			
Plan Content				
6. Is the plan based on an adequate and relevant information base?	**Very Good:** The information base for the plan is up to date and adequate in scope and depth, and is matched to the major decisions, policies and issues addressed in the plan			
	Good: The information base is adequate in scope and depth but maybe a little outdated and/or contains irrelevant information (i.e. a broad compilation of data rather than matching information to the decisions, policies and issues addressed in the plan)			
	Fair: The information base is out of date and/or has inadequacies in scope or depth so that some issues, decisions or policies cannot be placed into context			
	Poor: Very little information relevant to plan decisions exists			
7. Have the values for the site been identified in the plan and linked to the management objectives and desired outcomes for the site?	**Very Good:** The site values have been clearly identified and linked to well-defined management objectives and desired outcomes for the site			
	Good: The site values have been reasonably identified and linked to management objectives and desired outcomes for the site			
	Fair: The site values have not been clearly identified or linked to management objectives and desired outcomes for the site			
	Poor: The site values have not been identified			
8. Does the plan address the primary issues facing management of the World Heritage area within the context of the desired future of the site?	**Very Good:** Plan identifies primary issues for the site and deals with them within the context of the desired future for the site (i.e. plan is outcome, rather than issue-driven)			
	Good: Plan identifies primary issues for the site but tends to deal with them in isolation or not within the context of the desired future for the site			
	Fair: Some significant issues for the site are not addressed in the plan or the issues are not adequately addressed			
	Poor: Many significant issues are not addressed or are inadequately dealt with in the plan			
9. Are the objectives and actions specified in the plan represented as adequate and appropriate response to the issues?	**Very Good:** Objectives and actions are adequate and appropriate for all issues			
	Good: Objectives and actions are adequate and appropriate for most issues			
	Fair: Objectives and actions are frequently inadequate or inappropriate			
	Poor: Objectives and actions in the plan do not represent an adequate or appropriate response to the primary issues			

Question	Possible responses	Rating	Comments/ Explanation	Opportunities, recommendations and follow-up actions
10. Were local and indigenous communities living in or around the World Heritage site involved in developing the management plan and setting direction for the management of the World Heritage site?	**Very Good:** Local and indigenous communities living in or around the World Heritage site were meaningfully and fully involved in developing the management plan and setting direction for the World Heritage site			
	Good: Local and indigenous communities living in or around the World Heritage site were partially involved in developing the management plan and setting direction for the World Heritage site			
	Fair: Local and indigenous communities living in or around the World Heritage site were involved only minimally in developing the management plan and setting direction for the World Heritage site			
	Poor: Local and indigenous communities living in or around the World Heritage site were not involved in developing the management plan and setting direction for the World Heritage site			
11. Does the plan take account of the needs and interests of local and indigenous communities living in or around the World Heritage site?	**Very Good:** Plan identifies the needs and interests of local and indigenous communities and has taken these into account in decision-making			
	Good: Plan identifies the needs and interests of local and indigenous communities, but it is not apparent that these have been taken into account in decision-making			
	Fair: There is limited attention given to the needs and interests of local and indigenous communities and little account taken of these in decision-making			
	Poor: No apparent attention has been given to the needs and interests of local and indigenous communities			
12. Does the plan take account of the needs and interests of other stakeholders involved in the World Heritage site?	**Very Good:** Plan identifies the needs and interests of other stakeholders and has taken these into account in decision-making			
	Good: Plan identifies the needs and interests of other stakeholders, but it is not apparent that these have been into account in decision-making			
	Fair: There is limited attention given to the needs and interests of other stakeholders and little account taken of these in decision making			
	Poor: No apparent attention has been given to the needs and interests of other stakeholders			
13. Does the plan provide adequate direction on management actions that should be undertaken in the World Heritage site?	**Very Good:** Management actions specified in the plan can be clearly understood and provide a useful basis for developing operational plans such as work programmes and budgets			
	Good: Management actions specified in the plan can generally be clearly understood and provide an adequate basis for developing operational plans such as work programmes and budgets			
	Fair: Management actions are sometimes unclear or lacking in specificity making it difficult to use the plan as a basis for developing operational plans such as work programmes and budgets			
	Poor: Management actions are unclear or lacking in specificity making it very difficult to use the plan as a basis for developing operational plans such as work programmes and budgets			

Question	Possible responses	Rating	Comments/ Explanation	Opportunities, recommendations and follow-up actions
14. Does the plan identify the priorities amongst strategies and actions in a way that facilitates work programming and allocation of resources?	**Very Good:** Clear priorities are indicated within the plan in a way that supports work programming and allocation of resources			
	Good: Priorities are generally indicated making their use for work programming and resource allocation adequate most of the time			
	Fair: Priorities are not clearly indicated but may be inferred for work programming and resource allocation			
	Poor: There is no indication of priorities in the plan so that the plan cannot be used for work programming and resource allocation			

Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Tool 6: Design Assessment

This tool assesses the design of the World Heritage site to examine how its size, location and boundaries affect its ability to maintain its values.

In many cases, decisions made at the time the site was established will have been influenced by factors such as the suitability and availability of the land or sea area and various social, political and economic constraints. It is important to understand how site design impacts on effective site management even though many of the factors involved may be beyond the control of the manager.

Information from this assessment can be used to:

- identify ways in which management effectiveness can be improved through changes to site design such as overall size or boundary location
- where the site design itself cannot be changed, identify how changes in management could resolve or ameliorate problems created by poor design
- determine whether agreements with neighbours could enhance transboundary management so that biodiversity conservation and community well-being issues can be more effectively addressed.

Completing Worksheet 6

This worksheet can be used to examine three aspects of site design:

- Ecological integrity
- Community well-being
- Management factors (i.e. ease of management of the site).

Qualitative assessment is used to complete sections for each of these aspects. The following guidance notes can help to ensure that all relevant issues are considered. Assessors should bear in mind the site's major values when making judgements during the assessment (see Tool 1a). Each section of the worksheet follows the same format, assessing strengths and weaknesses of each of the aspects (these are discussed in more detail below):

1. The relevant major site values are listed at the top of the worksheet, so as to aid focusing on the relevant aspects of site design.

2. The various design aspects (outlined and explained below) are listed in column 1: sites may wish to add or subtract from these.

3. Strengths of the World Heritage site design with respect to each design aspect are listed (column 2) along with corresponding weaknesses (column 3).

4. Comments and explanations regarding the assessments are added to column 4.

5. In boxes underneath the worksheet matrix, sources of information are recorded along with an analysis and conclusions, comparison with previous assessments, gaps and challenges and opportunities, recommendations and follow-up actions.

Explanation of the various design aspects for the three sections listed in Worksheet 6

A number of different design aspects are listed in Worksheet 6 for ecological integrity, community well-being and management factors. These are outlined below.

Ecological integrity

This assessment is based on four major design elements: inclusion of key habitats, size, external interactions and connectivity.

- *Key habitats:* Species persistence may be affected by the failure to include key resource areas required by the species within the World Heritage site. Examples include part of a species' seasonal range, or refuge areas used during periods of environmental extremes (e.g. droughts and floods).
- *Size:* Larger sites are more likely to retain viable populations of many species because they can sustain essential ecological processes. They also provide buffering from edge effects such as weed invasion or pesticide spray. Smaller sites in areas of extensive natural vegetation, however, are effectively part of a much larger site, as long as the vegetation outside has not been made unsuitable as habitat. Some small World Heritage sites established for particular species (e.g. localized populations of rare plants) can remain effective for those species if surrounding land use is compatible.
- *External interactions:* The extent to which the World Heritage site interacts with or is influenced by external factors is further influenced by three related and interacting features of site design: **boundaries, shape** and **adjacent land management**. The more compact a World Heritage site is, the better its interior is buffered from negative edge effects such as pesticide spray, and weed and feral animal invasion. Sites with long boundaries relative to their areas will be more vulnerable to such outside effects. The influence of shape will be more significant in the case of small sites. Land use immediately adjacent to World Heritage sites can have important effects on some key species and habitats depending on the size, shape and boundary location of the site. For example, cultivation of crops adjacent to a site may lead to killing of native animals that leave the site to feed on crops, or to contamination from artificial nutrients and pesticides. If the site is small or has a high boundary to area ratio, the overall viability of the species/habitats in the site may be threatened by these losses. Continued availability of resources such as water may also be affected by adjacent land use. Diversion of natural water flows may have serious impacts on ecological integrity of the site.

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The boundary of Bwindi Impenetrable National Park, Uganda.

• *Connectivity:* Connectivity refers both to continuous connections or 'corridors' between patches of native vegetation and to the general 'permeability' of the landscape/seascape to allow for movement between patches - if these are not too far apart and the intervening landscape is not too hostile. Connectivity of an area therefore differs for different species, depending on their mobility and behaviour and the nature of the corridors or 'stepping-stones' available. Connectivity determines the extent to which a site is isolated. In the long-term, connectivity will affect the ability of communities of species to adjust to climate change.

Community well-being

The assessment of design in relation to community well-being is based on four major elements: key areas, size, external interactions and legal status and tenure.

• *Key areas:* Areas important for local communities in terms of supplying resources may lie within the site, which can result in conflict if access to them is not adequate or legal. The resources may be cultural, religious or economic (e.g. species used for food, medicinal plants, breeding areas of species of cultural or economic importance to the community, sacred natural sites).

• *Size:* The size of the World Heritage site can affect its potential to deliver community benefits through the provision of ecological services such as water supplies, erosion control, climate amelioration and air quality. Where exploitation of resources by local communities is permitted, the size of the World Heritage site will affect the amount that can be sustainably harvested.

• *External interactions:* A World Heritage site can affect communities if, for example, new social institutions and governance arrangements required for its management undermine traditional community institutions, or if an influx of foreign visitors affects social and economic conditions. The design of the site will affect the extent and significance of such interactions.

• *Legal status and tenure:* Provision or denial of legal access to resources traditionally used by local communities is often a major issue. Denial of access can lead to

criminal sanctions if users continue to use the resources and often results in conflict between managers and local people. Lack of clarity in legal status and tenure can affect local communities by creating uncertainties in relation to resource access rights. Lack of understanding of World Heritage site significance and management provisions can also lead to conflict and misunderstanding.

Management factors

This assessment considers issues relating to legal status, access and boundary issues, as these affect the ease of management for the World Heritage site.

The assessment of design in relation to management factors is based on three major elements: legal status and tenure, access points and neighbours.

• *Legal status and tenure:* The legal status of the World Heritage site can affect the extent to which managers are able to control activities within the site.

• *Access points:* Ease of access to the World Heritage site, for example, through roads, affects the ability of managers to control entry. It is more difficult to prevent illegal exploitation of sites with numerous access points than those with a single access point.

• *Neighbours:* The location of boundaries may influence the number and nature of neighbours and the nature of cross-boundary issues. For example, boundaries that are aligned with natural features in the landscape/seascape may reduce the need for cooperative management of factors such as fire and feral/problem animals in and out of the site.

Worksheet 6: Design Assessment

1. Ecological integrity
This relates to the major biodiversity and other natural values (refer to Tool 1a for a list of these major values):

Design aspect	Brief Explanation	Strengths of World Heritage site design in relation to this aspect	Weaknesses of World Heritage site design in relation to this aspect	Comments/ explanation
Key habitats	*Does site contain the key areas needed to conserve species and other natural values?*			
Size	*Is site large enough to conserve species and other natural values?*			
External interactions	*Do external interactions (e.g. adjacent land use) impact on site values?*			
Connectivity	*Can species move easily between the site and other suitable habitat?*			

Sources of information	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

2. Community well-being
This relates to major cultural, economic, educational and other social values and other community/site issues important to the well-being of the community (refer to Tool 1a for a list of these values):

Design aspect	Brief Explanation	Strengths of World Heritage site design in relation to this aspect	Weaknesses of World Heritage site design in relation to this aspect	Comments/ explanation
Key habitats	*Do local communities have access to key areas of cultural, religious or economic importance?*			
Size	*Is the site large enough to deliver ecological services or support sustainable harvesting (if permitted)?*			
External interactions	*Does the management of the site impact on local community functioning?*			
Legal status and tenure	*Are legal status and rights clear? Do conflicts impact on the community?*			

Sources of information	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

3. Management factors This relates to the practicalities of management of the site (e.g. legal status, access for patrols and boundary issues with neighbours):				
Design aspect	**Brief Explanation**	**Strengths of World Heritage site design in relation to this aspect**	**Weaknesses of World Heritage site design in relation to this aspect**	**Comments/ explanation**
Legal status and tenure	*Do problems or uncertainties over legal status or tenure affect capacity to manage?*			
Access points	*Does lack of control over access to the site impact on management effectiveness?*			
Neighbours	*Does the location and nature of boundaries support or impede management?*			

Sources of information	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Tool 7: Assessment of Management Needs and Inputs

This tool helps to evaluate current staffing compared to staff needs and current budget compared to the budget required for effective management.

The input assessment considers the resources that are required for effective management of the site, and measures these against the resources available. Estimation of needs allows identification of shortfalls in staff, funds and equipment in relation to planned management activities. More objective estimations of needs can strengthen proposals for funding from government, donors and other sources of support. Information on the extent and adequacy of resources available for management allows changes in staff and resource availability to be tracked over time.

The following worksheets can be used to assess gaps in resources and identify the places where available resources are most needed. Worksheet 7a examines staff needs (both numbers and training) and Worksheet 7b assesses current budget (and its sources) against funds required. Additional worksheets can be developed to look at other specific infrastructure or resource needs if required.

A more detailed input assessment can be carried out by developing a financial or business plan for the site. This would include management needs, inputs received and expected, and a balance analysis. Ideally, the plan should be prepared for an extended period (for example, five years). Advice on business planning for World Heritage site managers can be found in the *UNESCO/Shell Foundation Business Plan Toolkit*.

Completing Worksheets 7a and 7b

The first step is to undertake a **needs assessment** by gathering information about what resources are required for the management of a site. The management plan (or other primary planning document) should set out the site's objectives (see Worksheet 1a). Generally, managers then use this framework to develop annual work or operational plans that form the basis for day-to-day decision-making on the actions and strategies to be undertaken.

The second step is to compile information on available resources (staff, equipment, infrastructure and funding) and to assess these in relation to the achievement of management objectives.

Assessment of budgetary and staff training needs should be undertaken within the context of a thorough understanding of site management requirements. The information from other assessment tools could be used to guide such a needs assessment. It is important that this assessment takes a broad view. For example, budget allocation

and staff training may be required to address social issues, but these are often ignored in sites where staff is focused on biological conservation.

Worksheet 7a: Assessment of Management Needs and Inputs for Staff

The first worksheet looks specifically at staffing needs, in terms of numbers and expertise. The worksheet has been developed by the Ugandan Wildlife Authority as a contribution to the Enhancing our Heritage project. The steps needed to complete the worksheet are as follows:

1. All staff categories, i.e. full-time and part-time, paid, voluntary and seasonal, should be listed (column 1).

2. Location of staff should be listed, e.g. whether they are based on site or at head office. In some cases different staff members within a single category will be located in separate places; this should be noted (column 2).

3. The results of the needs assessment should be recorded against different staff categories, i.e. how many senior managers, rangers, community liaison officers etc are needed (column 3).

4. Current number of staff members per category is then listed in column 4.

5. The number of trained staff in each category is given in column 5.

6. The type of training required for different categories is then stated (column 6).

7. An estimation of the degree of training is also given (column 7). Ideally standards should be developed against which to assess the level of training, for example:

   • Very Good: more than 75% of staff are trained to an adequate level to carry out the activities required
   • Good: 50% - 75% of staff is trained to an adequate level to carry out the activities required
   • Fair: between 25% and 50% of staff is trained to an adequate level to carry out the activities required
   • Poor: less than 25% of staff is trained to an adequate level to carry out the activities required.

8. Finally, any relevant comments and explanations are given in column 8.

9. In boxes immediately underneath the worksheet, space is available to give any information available about sources, analysis and conclusions, comparison with earlier assessments, gaps and challenges and further opportunities. Management decisions in terms of filling gaps in staffing requirements and/or training should be discussed in this section.

The annual maintenance of walking paths is a major task in the Blue Mountains World Heritage site in Australia.

4. Funding sources are identified and listed by the relevant categories (column 4).

5. Comments are included (column 5), for example, regarding the long-term security of different budget lines, remaining questions and uncertainties etc.

6. In the boxes immediately beneath the worksheet, space is available to give any information available about sources, analysis and conclusions, comparison with earlier assessments, gaps and challenges and further opportunities.

Similar worksheets could be developed for other management needs and inputs, such as equipment.

Worksheet 7b: Assessment of Management Needs and Inputs for Budgets

Worksheet 7b assesses funding needs against actual budgets and can be completed using existing budgeting processes and systems. If a site has a single source of inputs, this assessment is relatively straightforward. However, many sites receive inputs from several sources, for example, government, NGOs, private sector and donors, sometimes on multi-year cycles, making the assessment more complex - particularly if some inputs are in the form of funding and others in-kind. Steps involved in completing the worksheet include:

1. Expenditure categories should be listed. These should be divided up in the same way as the annual budget (column 1).

2. Budget requirements are then outlined, drawing on the needs assessment referred to above (column 2).

3. The actual budget for a particular expenditure category is then given (column 3), stating the period of the budget (i.e. the start and finish date of the budget cycle): in sites with multiple funding sources not all budget cycles will match exactly.

Worksheet 7a: Assessment of Management Needs and Inputs for Staff

Staff category	Location	Required no. of staff	Current no. of staff	No. of trained staff	Type of training required	Level of Training				Comments/ Explanation
						Poor	Fair	Good	Very Good	
List staff positions, including all categories of permanent and tempo-rary staff	*Identify where staff are posted (in some cases there will be more than one location within a particular category)*	*Estimate the ideal number of staff in this category*	*Give current number of staff*	*Identify the proportion of staff who are trained in each category*	*Detail the type of training required*	*- Very Good: more than 75% of staff is trained to an adequate level to carry out the activities required* *- Good: 50% - 75% of staff is trained to an ade-quate level to carry out the activities required* *- Fair: between 25% and 50% staff is trained to an adequate level to carry out the activities required* *- Poor: less than 25% of staff is trained to an ade-quate level to carry out the activities required.*				*Give details of how the assess-ment was made, i.e. how required staffing was calculated*

Sources of information	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Worksheet 7b: Assessment of Management Needs and Inputs for Budgets

Expenditure category	Budget required	Actual budget available	Funding source(s)	Comments/ explanation
These categories should relate to the categories used for the site's annual budget	*Record requirements here (details of how the assessment was carried out should be given in the comments or sources columns)*	*Provide details on budget available and period (i.e. June 2006 to June 2007)*	*Give details on where funding comes from, e.g. government funds, NGO projects, etc.*	*Provide details on how information given in previous columns has been determined*

Sources of information	
Analysis and conclusions	
Comparisons with previous assessments	
Gaps and challenges	
Opportunities, recommendations and follow-up actions	

Tool 8: Assessment of Management Processes

This tool helps managers to identify the best practices and desired standards in relation to management processes, and to rate performance in terms of appropriateness and adequacy against these standards.

The use of the best possible management practices is essential for effective site management, and regular assessment can identify ways in which practices can be improved. The process assessment thus asks:

- Are the best systems and standards of management being followed?
- Are agreed policies and procedures in place and being followed?
- How can management practices be improved?

The starting point is to define the desired standards for each management issue. Worksheet 8a is a multiple-choice questionnaire, with each answer leading to a rating that can be added to produce a total. A set of standards is implicit in the various responses in Worksheet 8a, which can be used without modification. However, sites may wish to refine the standards to better reflect standards that apply at local or regional levels.

The indicator ratings help to gauge the standard of current management practices. If assessments are carried out at intervals, these provide a means to measure improvement in management systems and processes. The rating system is not designed to compare between World Heritage sites, but rather to track progress of individual sites. The rating sheet can help to determine if the best management standards are being followed and to identify areas where management can be improved. The scores are summarized in Worksheet 8b.

The various responses associated with the ratings (from Very Good to Poor) can be amended where required. At the Very Good level, the response should define the way in which management should be conducted if there were no constraints arising from deficiencies in funding, staffing numbers, staff skills, or other aspects of management. Information on best practices (where available) combined with professional experience and knowledge of local circumstances can be used to establish desired standards. In most cases, standards will be descriptive, that is, qualitative rather than quantitative, The assessment against desired standards will, therefore, also be a qualitative process. The development of standards and the assessment of performance against them should ideally be a participatory process, involving not just the World Heritage site manager and staff, but also community representatives, external experts and other stakeholders.

Ensuring equipment is well maintained is a vital life line for remote sites like Aldabra Atoll in the Seychelles.

Completing Worksheets 8a and 8b

Worksheet 8a: Assessment of Management Processe

The assessment should compare management against the desired standards using Worksheet 8a, adapted as necessary.

1. A series of 29 different management areas have been identified and listed in column 1. These management areas have been grouped under four overall management topics (Management structures and systems, Resource management, Management and tourism and Management and communities/neighbours). Suggestions are given and can be added to or changed for individual World Heritage sites.

2. Four possible responses, with associated ratings, are given for each of the management areas: these describe different degrees of achievement in reaching the particular standard (column 2). The suggested ratings range from 'Very Good', where the desired standard (defined in the column headed criteria) has been met, to 'Poor' where there has been complete failure to meet the desired standard. For example, success in reaching a standard for equipment/facility maintenance could be assessed as follows:

- Very good: All equipment/facilities are regularly maintained, i.e. the standard has been met
- Good: Most equipment/facilities are regularly maintained
- Fair: Maintenance is only undertaken when equipment/facilities are in need of repair
- Poor: Little or no maintenance of equipment/facilities is undertaken.

3. Once the most appropriate answer has been selected, the equivalent box is ticked in column 3 to give the rating for a particular management area.

4. For each standard/management area assessed, notes should be made in the comment/explanation column (column 4) regarding the reasons for the ranking. Future actions should be listed in the opportunities, recommendations and follow-up actions column (column 5). It is important to recognize that some aspects of management are beyond the control of managers, who should therefore not be held accountable for related shortcomings.

Worksheet 8b: Assessment of Management Processes: Summary

A summary sheet (Worksheet 8b) provides the opportunity to give an overall view of the effectiveness of management processes.

1. The summary sheet suggests grouping the management issues according to the four overall topics identified in Tool 8a: Management structures and systems; Resource management; Management and tourism and

Management and communities/neighbours (column 1). However, the groupings can be determined on a case-by-case basis according to questions developed for the worksheet.

2. Individual questions are listed in column 2 and the rating is summarized in column 3.

3. The assessment can be summarized by adding the different ratings (Poor, Fair, Good and Very Good) for each group of management activities, thereby giving a picture of where the strengths and weaknesses of management processes lie (for example, the summary might show that resource management is generally quite good, whereas management for tourism is poor).

4. At the end of this section, room is provided to discuss gaps and challenges identified in the assessment, changes since the last assessment, and analysis and conclusions.

Worksheet 8a: **Assessment of Management Processes**

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
Management standards relevant to the site	*Four responses are given which describe best practice in relation to the management standard and which can be rated from Very Good to Poor. Choose the one most appropriate to the situation in the World Heritage site.*	*Add the rating here*	*Add details of why the assessment was made*	*Discuss future actions that may, if necessary, improve performance relating to this management issue*
Management structures and systems				
1. World Heritage values Have values been identified and are these linked to management objectives?	**Very Good:** The World Heritage site has agreed and documented values and the management objectives fully reflect these		*Include details of the type of planning instrument being used (i.e. 10-year management)*	
	Good: The World Heritage site has agreed and documented values, but these are only partially reflected in the management objectives			
	Fair: The World Heritage site has agreed and documented values, but these are not reflected in the management objectives			
	Poor: No values have been agreed for the World Heritage site			
2. Management planning Is a plan and is it being implemented?	**Very Good:** An approved management plan exists and is being fully implemented			
	Good: An approved management plan exists, but it is only being partially implemented because of funding constraints or other problems (please state)			
	Fair: A plan is being prepared or has been prepared but is not being implemented			
	Poor: There is no plan for managing the World Heritage site			

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
3. Planning systems Are the planning systems appropriate, i.e. participation, consultation, review and updating?	**Very Good:** Planning and decision-making processes are excellent			*Consider opportunities for adjacent landholders and stakeholders to influence management planning, and whether details of the schedule, process for periodic review and updating of the management plan exist.*
	Good: There are some planning and decision-making processes in place, but they could be better, either in terms of improved processes or processes being carried out			
	Fair: There are some planning and decision-making processes in place, but these are either inadequate or are not carried out			
	Poor: Planning and decision-making processes are deficient in most aspects			
4. Regular work plans Are there regular work plans or other planning tools?	**Very Good:** Regular work plans exist, actions are monitored against planned targets, and most or all prescribed activities are completed		*Include details of the type of planning instrument being used (i.e. annual work plan, tourism plan)*	
	Good: Regular work plans exist and actions are monitored against planned targets, but many activities are incomplete			
	Fair: Regular work plans exist but activities are not monitored against the plan's targets			
	Poor: No regular work plans exist			
5. Monitoring and evaluation Are management activities monitored against performance?	**Very Good:** A good monitoring and evaluation system exists, is well implemented, and used for adaptive management			
	Good: There is an agreed and implemented monitoring and evaluation system of management activities, but results are not systematically applied to management			
	Fair: There is some *ad hoc* monitoring and evaluation of management activities, but no overall strategy and/or no regular collection of results			
	Poor: There is no monitoring and evaluation of management activities in the World Heritage site			
6. Reporting Are all the reporting requirements of the World Heritage site fulfilled?	**Very Good:** Site managers fully comply with all reporting needs and have all the necessary information for full and informative reporting			
	Good: Site managers fully comply with all reporting needs, but do not have all the necessary information for full and informative reporting			
	Fair: There is some reporting, but all reporting needs are not fulfilled and managers do not have all the necessary information on the site to allow full and informative reporting			
	Poor: There is no reporting on the World Heritage site			
7. Maintenance of equipment Is equipment adequately maintained?	**Very Good:** Equipment and facilities are well-maintained and an equipment maintenance plan is being implemented			
	Good: There is basic maintenance of equipment and facilities. If a maintenance plan exists it is not fully implemented			
	Fair: There is some *ad hoc* maintenance, but a maintenance plan does not exist or is not implemented			
	Poor: There is little or no maintenance of equipment and facilities, and no maintenance plan			

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
8. Major infrastructure Is management infrastructure (e.g. roads, offices, fire towers) adequate for the needs of the site?	**Very Good:** Management infrastructure is excellent and appropriate for managing the site			
	Good: Management infrastructure is adequate and generally appropriate for the site			
	Fair: Management infrastructure is often inadequate and/or inappropriate for the site			
	Poor: Management infrastructure is inadequate and/or inappropriate for the site			
9. Staff equipment and facilities Are the available facilities (e.g. vehicles, GPS, staff accommodation) suitable for the management requirements of the site?	**Very Good:** Staff facilities and equipment at the World Heritage site are good and aid the achievement of the objectives of the site			
	Good: Staff facilities and equipment are not significantly constraining achievement of major objectives			
	Fair: Inadequate staff facilities and equipment constrain achievement of some management objectives			
	Poor: Inadequate staff facilities and equipment mean that achievement of major objectives is constrained			
10. Staff/ management communication Do staff have the opportunity to feed into management decisions?	**Very Good:** Staff directly participate in making decisions relating to management of the site at both site and management authority level			
	Good: Staff directly contribute to some decisions relating to management			
	Fair: Staff have some input into discussions relating to management, but no direct involvement in the resulting decisions			
	Poor: There are no mechanisms for staff to input into decisions relating to the management of the World Heritage site			
11. Personnel management How well are staff managed?	**Very Good:** Provisions to ensure good personnel management are in place		*Include details of the types of personnel management systems that are in place*	*For example, job descriptions, staff appraisals, grievance procedures, promotion plans, insurance*
	Good: Although some provisions for personnel management are in place, these could be improved			
	Fair: There are minimal provisions for good personnel management			
	Poor: There are no provisions to ensure good personnel management			
12. Staff training Are staff adequately trained?	**Very Good:** Staff training and skills are appropriate for the management needs of the site, and for anticipated future needs			
	Good: Staff training and skills are adequate, but could be further improved to fully achieve management objectives			
	Fair: Staff training and skills are low relative to the management needs of the site			
	Poor: Staff lack the skills/training needed for effective site management			
13. Law enforcement Do staff have the capacity to enforce legislation?	**Very Good:** The staff have excellent capacity/resources to enforce legislation and regulations		*Include information, for example, on what happens if people are arrested*	*For example, lack of skills, no patrol budget, staff management problems*
	Good: The staff have acceptable capacity/resources to enforce legislation and regulations, but some deficiencies remain			

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
	Fair: There are major deficiencies in staff capacity/resources to enforce legislation and regulations			
	Poor: The staff have no effective capacity/resources to enforce legislation and regulations			
14. Financial management Does the financial management system meet critical management needs?	**Very Good:** Financial management is excellent and contributes to effective management of the site		*Include details on whether audits are regularly carried out*	*For example, the timely release of funds for the financial year*
	Good: Financial management is adequate but could be improved			
	Fair: Financial management is poor and constrains effectiveness			
	Poor: Financial management is poor and significantly undermines effectiveness of the World Heritage site			
Resource management				
15. Managing resources Are there management mechanisms in place to control inappropriate land uses and activities (e.g. poaching)?	**Very Good:** Mechanisms for controlling inappropriate land use and activities in the World Heritage site exist and are being effectively implemented			
	Good: Mechanisms for controlling inappropriate land use and activities in the World Heritage site exist, but there are some problems in effectively implementing them			
	Fair: Mechanisms for controlling inappropriate land use and activities in the World Heritage site exist, but there are major problems in implementing them effectively			
	Poor: There are no management mechanisms for controlling inappropriate land use and activities in the World Heritage site			
16. Resource inventory Is there enough information to manage the World Heritage site?	**Very Good:** Information on the critical habitats, species and cultural values of the World Heritage site is sufficient to support planning and decision-making and is being updated		*Detail which areas (i.e. critical habitats, species and/or cultural values) have either sufficient or deficient information resources.*	
	Good: Information on the critical habitats, species and cultural values of the World Heritage site is sufficient for some areas of planning/decision making and plans exist (e.g. research and monitoring) to fill data gaps			
	Fair: Some information is available on the critical habitats, species and cultural values of the World Heritage site, but this is insufficient to support planning and decision-making and further data gathering is not being carried out			
	Poor: There is little or no information available on the critical habitats, species and cultural values of the World Heritage site			
17. Research Is there a programme of management-orientated survey and research work?	**Very Good:** There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs			
	Good: There is considerable survey and research work directed towards the needs of World Heritage site management			
	Fair: There is limited survey and research work directed towards the needs of World Heritage site management.			
	Poor: There is no research taking place directed towards the needs of World Heritage site management			

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
18. Ecosystems and species Is the biodiversity of the World Heritage site adequately managed?	**Very Good:** Requirements for management of critical ecosystems and species are being substantially or fully implemented			
	Good: Requirements for management of critical ecosystems and species are only being partially implemented			
	Fair: Requirements for management of critical ecosystems and species are known, but are not being implemented			
	Poor: Requirements for management of critical ecosystems and species have not been assessed and/or active management is not being undertaken			
19. Cultural/ historical resource management Are the site's cultural resources adequately managed?	**Very Good:** Requirements for management of cultural/historical values are being substantially or fully implemented			
	Good: Requirements for management of cultural/historical values are only being partially implemented			
	Fair: Requirements for management of cultural/historical values are known, but are not being implemented			
	Poor: Requirements for management of cultural/historical values have not been assessed and/or active management is not being undertaken			
Management and tourism				
20. Visitor facilities Are visitor facilities (for tourists, pilgrims etc) adequate?	**Very Good:** Visitor facilities and services are excellent for current levels of visitation			
	Good: Visitor facilities and services are adequate for current levels of visitation but could be improved			
	Fair: Visitor facilities and services are inappropriate for current levels of visitation			
	Poor: There are no visitor facilities and services despite an identified need			
21. Commercial tourism Do commercial tour operators contribute to World Heritage site management?	**Very Good:** There is good cooperation between managers and tourism operators to enhance visitor experiences and protect site values			
	Good: There is limited cooperation between managers and tourism operators to enhance visitor experiences and protect site values			
	Fair: There is contact between managers and tourism operators, but this is largely confined to administrative or regulatory matters			
	Poor: There is little or no contact between managers and tourism operators using the World Heritage site			
22. Visitor opportunities Have plans been developed to provide visitors with the most appropriate access and diversity of experience when visiting the World Heritage site?	**Very Good:** Implementation of visitor management policies and programmes is based on research and monitoring into visitor use and requirements and the carrying capacity of the World Heritage site			
	Good: Policies and programmes to enhance visitor opportunities are being implemented, but these are not based on research and monitoring of visitor use and requirements			
	Fair: Consideration has been given to policies and programmes to enhance visitor opportunities, but little or no action has been taken			
	Poor: No consideration has been given to the provision of visitor opportunities to the World Heritage site			

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
23. Education and awareness programme Is there a planned education programme that addresses all audiences (i.e. local communities as well as visitors)?	**Very Good:** There is a planned, implemented and effective education and awareness programme fully linked to the objectives and needs of the World Heritage site			
	Good: There is a planned education and awareness programme, but there are still serious gaps either in the plan or in implementation			
	Fair: There is a limited and *ad hoc* education and awareness programme, but no overall planning			
	Poor: There is no education and awareness programme			
24. Access Is visitor access sufficiently controlled? (For example, through patrols, and permits etc.)	**Very Good:** Visitor management systems are largely or wholly effective in controlling access to the site in accordance with objectives			
	Good: Visitor management systems are moderately effective in controlling access to the site in accordance with objectives			
	Fair: Visitor management systems are only partially effective in controlling access to the site in accordance with objectives			
	Poor: Visitor management systems are ineffective in controlling access to the site in accordance with objectives Management and communities/neighbours			
Management and communities/neighbours				
25. Local communities Do local communities resident in or near the World Heritage site have input to management decisions?	**Very Good:** Local communities directly and meaningfully participate in all relevant management decisions for the site			
	Good: Local communities directly contribute to some relevant management decisions, but their involvement could be improved			
	Fair: Local communities have some input into discussions relating to management, but no direct involvement in decision-making			
	Poor: Local communities have no input into decisions relating to the management of the World Heritage site			
26. Indigenous people Do indigenous and traditional peoples resident in or regularly using the site have input to management decisions?	**Very Good:** Indigenous and traditional peoples directly participate in all relevant management decisions for the site			
	Good: Indigenous and traditional peoples directly contribute to making some relevant management decisions, but their involvement could be improved			
	Fair: Indigenous and traditional peoples have some input into discussions relating to management, but no direct involvement in decision-making			
	Poor: Indigenous and traditional peoples have no input into decisions relating to the management of the site			
27. Local people's welfare Are there programmes developed by the World Heritage managers that consider local people's welfare whilst conserving the sites resources?	**Very Good:** Programmes to enhance local, indigenous and/or traditional peoples' welfare, while conserving World Heritage site resources, are being implemented successfully			
	Good: Programmes to enhance local, indigenous and/or traditional peoples welfare, while conserving World Heritage site resources, are being implemented, but could be improved			

Management area	Possible responses	Rating	Comments/ explanation	Opportunities, recommendations and follow-up actions
	Fair: Programmes exist to enhance local, indigenous and/or traditional peoples welfare, while conserving World Heritage site resources, but are either inadequate or are not being implemented			
	Poor: There are no programmes in place which aim to enhance local, indigenous and/or traditional peoples welfare			
28. State and commercial neighbours Is there cooperation with neighbouring land/sea owners and users?	**Very Good:** There is regular contact between managers and neighbouring official or corporate land/sea users, and substantial cooperation on management			
	Good: There is contact between managers and neighbouring official or corporate land/sea users, but only some cooperation on management			
	Fair: There is contact between managers and neighbouring official or corporate land/sea users, but little or no cooperation on management			
	Poor: There is no contact between managers and neighbouring official or corporate land/sea users			
29. Conflict resolution If conflicts between the World Heritage site and stakeholders arise, are mechanisms in place to help find solutions?	**Very Good:** Conflict resolutions mechanisms exist and are used whenever conflicts arise			
	Good: Conflict resolutions mechanisms exist, but are only partially effective			
	Fair: Conflict resolution mechanisms exist, but are largely ineffective			
	Poor: No conflict resolution mechanisms exist			

Worksheet 8b: **Assessment of Management Processes: Summary**			
Management area	**Question**	**Rating**	**Distribution of rating**
Management structures and systems	1 2 3 4 5 6 7 8 9 10 11 12 13 14		Very Good: Good: Fair: Poor:
Resource management	15 16 17 18 19		Very Good: Good: Fair: Poor:
Management and tourism Management and communities /neighbours	20 21 22 23 24		Very Good: Good: Fair: Poor:
	25 26 27 28 29		Very Good: Good: Fair: Poor:
Comparisons with last assessments			
Gaps and challenges			
Analysis and conclusions			

Tool 9: Assessment of Management Plan Implementation

This tool aims to show progress in implementing the management plan (or other primary planning document).

The assessment of management plan implementation consists of reviewing each action specified in the plan and assigning it to a status category (e.g. from 'Action has not commenced' to 'Action has been completed'). The assessment provides a way of verifying that annual programmes are being developed around the management plan. Ideally, the assessment should be carried out each year as part of the process of developing work programmes.

Completing Worksheet 9

Worksheet 9 provides an outline of the recording system required to complete this assessment. However, an Excel spreadsheet can be used to record the status of each action and these then summarized by plan component as well as for the plan as a whole, using easy to understand graphics (examples are given below). An electronic tool, ParkPlan, has also been developed by the Enhancing our Heritage project specifically to carry out this type of assessment (see box below).

1. The tool assesses implementation both generally, and at the level of individual components of the plan. 'Component' here refers to the main divisions or sections within the management plan (i.e. tourism management programme, administration or financial management). These may be labelled as 'sections', 'management programmes' or similar terminology. The first step in the assessment, therefore, is to record the various components of the plan in column 1.

2. The assessment consists of reviewing each action specified in the plan and assigning to it a status category. This assessment should be carried out each year as part of the process of developing annual works programmes. It provides a way of checking that annual programmes are being developed around the management plan specifications.

3. A set of 6 status codes is suggested below, but these codes can be revised to suit local circumstances:

   • *Status Code 1:* Action has not commenced
   • *Status Code 2:* Work on implementation of action is only reactive and not to a set plan
   • *Status Code 3:* Planning for implementation of action is in progress
   • *Status Code 4:* Some work has commenced in all or some areas (i.e. policy and/or planning stages are complete, staff time and funds have been allocated)

Worksheet 9: **Assessment of Management Plan Implementation**								
	Component A		**Component B**		**Component C**		**Component D**	
Status codes	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**	**Year 1**	**Year 2**
Each action should be assessed against the status codes provided below	*These columns can provide a summary of progress towards completing each action*							
1. Not commenced								
2. Reactive work only								
3. Planning in progress								
4. Planning complete work commenced								
5. Substantial progress								
6. Action completed								
Total								
Analysis and conclusions								
Comparisons with previous assessments								
Gaps and challenges								
Opportunities, recommendations and follow-up actions								

- *Status Code 5:* Action is making substantial progress in all areas (i.e. policy and/or planning stages are complete and implementation is happening in all areas, staff time and funds have been allocated
- *Status Code 6:* Action has been completed or policy is in place and is being adhered to.

4. The worksheet also provides space to record analysis, gaps and conclusions. Once a number of years' data have been accumulated, it is possible to see trends in the rate of implementation of the management plan and to assess if this rate is satisfactory. This can also be recorded in the worksheet. This type of analysis might reveal, for example, that some sections of the plan are progressing more quickly than others, or that implementation of the plan as a whole is proceeding too slowly to allow all actions to be completed within the planned timeframe.

An example worksheet and graphic is included that provides for two years' data to be entered for a plan consisting of three main components and using the 6 status codes suggested above. This worksheet can be amended to reflect the actual names and numbers of component sections in a management plan and the numbers of years of data available.

ParkPlan

Database software has been developed by the Enhancing our Heritage project to facilitate the assessment of outputs as described in Tool 9 above. ParkPlan is designed to track the progress of implementing a site's management plan. It is a generic tool that reflects the structure of any site management plan, providing the plan has a hierarchical structure. That means that the plan outlines specific actions designed to reflect management plan targets and overall objectives. The tool then can be used to provide detail on the achievement of individual actions.

The software tool therefore has three main purposes:
- *To provide detail on the progress of implementing management plan actions*
- *To generate reports on the status of these actions*
- *To facilitate operational planning based on the management plan.*

As results from a number of years are collected, more detailed analysis of implementation progress and trends becomes possible. The flexible searching capabilities of ParkPlan allow the status of different components of the plan to be investigated. The results of this assessment tool can be presented in annual reports or other reporting documents.

For more information on ParkPlan contact:
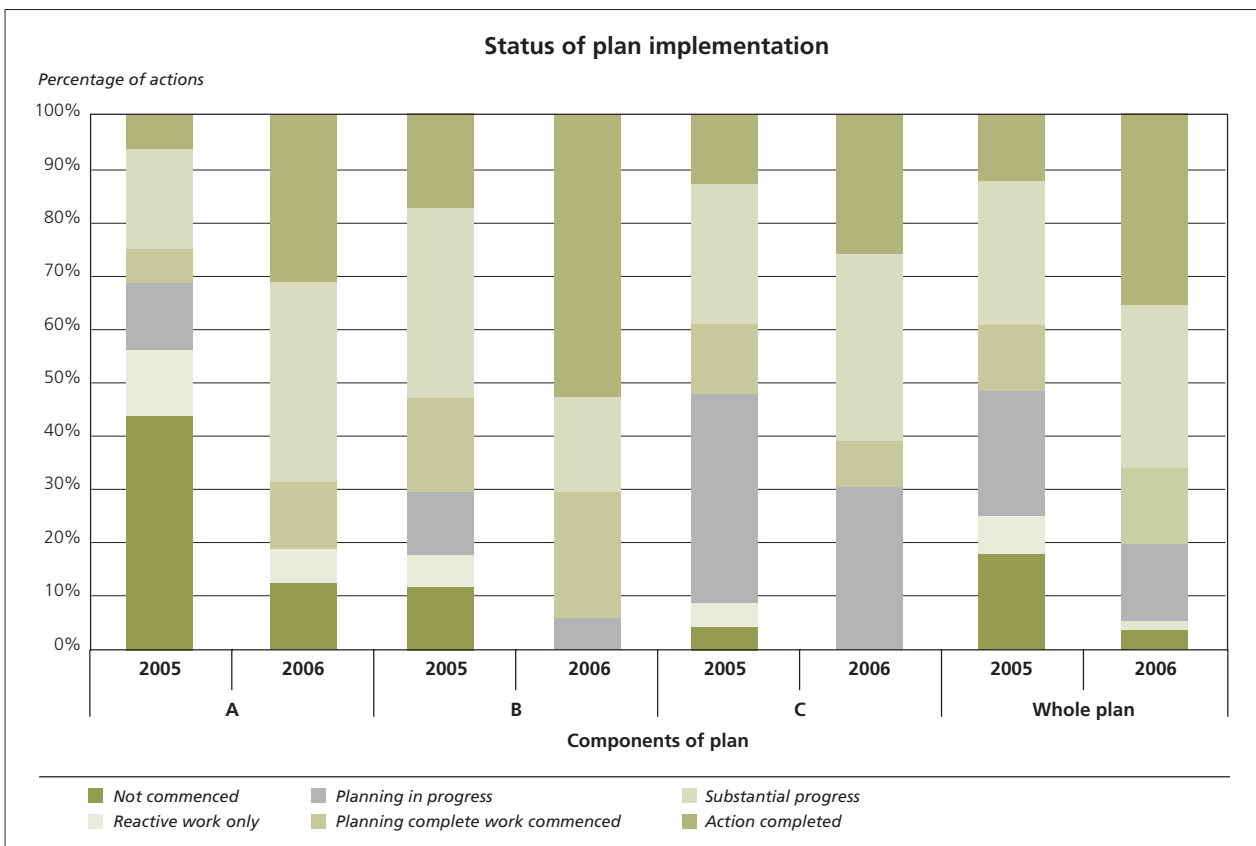*Dr Marc Hockings m.hockings@uq.edu.au*

Figure 3.3: Example of worksheet 8 in table and graph formats.

Tool 10: Work/Site Output Indicators

This tool assesses the achievement of annual work programme targets and other output indicators for the site.

Output indicators are measures of 'productivity' that can supplement information on the achievement of outcomes and implementation of the management plan.

Work output measures are usually expressed in numbers (such as numbers of law enforcement patrols, kilometres of walking track maintained, or number of community meetings conducted) and can be assessed by monitoring against these measures.

Even statistics that are not directly related to work programmes can sometimes provide useful information. For example, visitor numbers are not usually expressed as work output measures, in that a particular number of visitors is desired or is a product of direct management action, but monitoring changes in visitor numbers will give some indication of the demands placed on management. Measures of local use may assist in assessing community costs and benefits arising from the site. Developing a set of work output indicators can, thus, be part of the establishment of an effective management information system for a site.

Just getting access to some sites, such as Rio Platano Biosphere Reserve in Honduras, presents a major challenge to management.

work plan, or the extent to which planned capital works programme has been completed
• actual versus planned expenditure.

Assessment of work undertaken and expenditures made can provide accountability to management authorities, donors and others. Financial information can be added to the worksheet if this available. It is important to integrate this activity into the planning and management cycle, not only in terms of reporting on what has happened, but also to improve future planning and management.

Completing Worksheet 10

Worksheet 10 provides a simple format for measuring progress in achieving outputs. The outputs to be monitored should be decided in advance, for example at a managers' workshop, preferably when the management plan or annual work plan is being developed. Outputs should:

• be activities that are important for achieving the overall site objectives
• reflect the nature and use of the site
• be part of annual reporting requirements.

An example of a work output indicator is given in the box below:

> ### Examples of potential indicators
>
> *The products and services resulting from management of a World Heritage site can be measured using several indicators, including:*
>
> • *Numbers of users: e.g. numbers of visitors, numbers of people using a service, and numbers of inquiries answered.*
> • *Volume of work output: e.g. numbers of meetings held with local communities, number of patrols undertaken, extent of area surveyed in a research programme, and numbers of prosecutions instigated.*
> • *Physical outputs: e.g. length of site boundary delineated and marked, numbers of brochures produced or distributed, and number and value of development projects completed.*

The assessment of outputs from a planned work programme requires that the outputs have been defined, or in some cases that targets (either quantitative or qualitative) have been set. The assessment can be carried out by measuring:

• actual work undertaken versus work planned work, e.g. numbers of patrols undertaken as compared with the

> ### Example of output indicator and assessment
>
> • ***Indicator:*** *Number of law enforcement patrols conducted*
> • ***Work output target:*** *100 patrols per year with coverage of all border areas of World Heritage site at least once per month*
> • ***Performance:*** *95 patrols undertaken, coverage of all border areas achieved each month with exception of remote northern region of World Heritage site where patrols were only undertaken every second month*
> • ***Performance/level in previous year:*** *80 patrols undertaken, with coverage of all border areas completed every third month.*

The worksheet should be filled out as follows:

1. A number of indicators are identified and listed (column 1). These will generally be specific, measurable outputs from agreed work plans (e.g. number of patrols, miles of boundary delineated, etc).

2. An agreed target for each indicator is listed (column 2). Again, these should be available in work programmes or similar (e.g. 25 km of trail renovated during the next year).

3. The actual output is listed next (column 3). To take the previous example, perhaps only 20 km of trail was actually renovated.

4. Where possible, performance is compared to previous years (column 4). This will not be possible for all indicators if the output is new (e.g. if the indicator is measuring outputs from a new tree-planting project), but should be filled in wherever meaningful comparisons occur.

5. Comments and explanations are given in column 5.

6. At the end of the worksheet, room is provided to discuss gaps and challenges identified in the assessment, and changes since the last assessment and analysis and conclusions.

Worksheet 10: Assessing Outputs

Indicator	Work output target	Performance	Performance/level in previous year	Comments/ explanation	Sources of information
List indicators (these are usually expressed in a numeric way and may include user numbers, volume of work output and physical outputs)	Identify a measurable target for each indicator	List actual performance so that this can be compared to the target	List (where they exist) last year's outputs relating to the indicator		
Analysis and conclusions					
Comparisons with previous assessments					
Gaps and challenges					
Opportunities, recommendations and follow-up actions					

Tool 11: Assessing the Outcomes of Management: Conservation of Values and Achievement of Objectives

This tool is designed to help answer the most important question of all: whether the World Heritage site is protecting its values and achieving its objectives.

This is the most challenging assessment, because it makes judgements about long-term trends in conservation of the site. Tools 9 and 10 tell us whether various management actions listed in the management plan, work plan or similar have been completed. But these *outputs*, while being important as a way of seeing how management is performing, still do not give us all the information needed to judge if the site is meeting its long-term aims: the *outcomes* of management. Even a well-managed World Heritage site – one where all outputs are being achieved – can sometimes continue to lose biodiversity or cultural values.

It is therefore important, when assessing the achievement of objectives and maintenance of values, to focus on outcomes rather than just delivery of outputs. We need to be able to distinguish between the two. *Outputs* refer to achieving the day-to-day targets of management (what did we do and what products and services were produced?) while outcomes looks at whether or not the broader values of the site were maintained (what did we achieve?).

For example, an outcome might be to maintain tigers in a World Heritage site while an associated output (what park staff does to try to achieve the outcome) might be to run anti-poaching controls. But running patrols is not the same as saving the tiger, which could be killed by poachers who learn to avoid the patrolling guards (or tigers might be affected by an unrelated hazard such as disease). Achieving outputs therefore does not necessarily equal a successful outcome, which needs to be measured instead by counting the number of tigers that remain. Similarly, a desired outcome for a national park might be to provide high-quality ecotourism experiences for visitors, and a related output might be to conduct daily ranger-guided wildlife-viewing safaris. To measure the outcome, we would need to monitor the quality of experience through, for example, a visitor survey and not just record the number of visitors who used the guide service (if visitors go on a guided walk and do not enjoy themselves this does not contribute to 'high-quality ecotourism experiences').

Monitoring and assessing outcomes is the most demanding and often the most expensive part of management. As such, it needs careful planning to avoid unnecessary costs and time commitments. Assessing outcomes requires a **monitoring programme**. This should be ongoing and once established can provide the information required to undertake an outcomes assessment. Tool 11 therefore includes two worksheets. Worksheet 11a is used to develop a programme for monitoring outcomes or record

current monitoring systems and ensure that these fully relate to the assessment of outcomes. The focus of this worksheet is on measuring ecological integrity, but the principles it describes could also be applied to cultural and other values. This is then used to make the outcomes assessment in Worksheet 11b.

Worksheet 11a: Monitoring management outcomes

Outcome monitoring focuses mainly on whether sites values are being maintained. Tool 1 (Worksheets 1a and 1b) provides a list of values and associated objectives. However, the values identified for sites in World Heritage designation, management plans and similar documents are often stated in general terms with many different aspects, not all of which can easily be measured. In these cases, some approximate quantitative or qualitative measure of achievement is needed to reflect the overall spirit of the value; these are usually called **indicators** and are explained more fully in the box below.

> #### What are indicators?
>
> *An indicator is something that can be measured over time to tell us about the performance of a World Heritage site. As the name implies, an indicator should not just give information about its own status, but also paint a more general picture of the health of the community. For example, a species dependent on several different habitats during its life-cycle is likely to be a good indicator in that if its population is maintained, then this implies that the associated habitats are also still functioning ecologically. Selecting indicators is a skill, and to a certain extent, an art. Indicators, however, only ever tell us part of the story and should be employed in conjunction with a more general qualitative evaluation of the status of the site and its values.*

An assessment of outcomes should draw on existing monitoring data. While some World Heritage sites already collect data on some or all their values, many do not. Development or refinement of a system for monitoring outcomes should however be an aim of all World Heritage sites - but this takes time and resources to build. Tool 11a describes the steps needed to develop or refine such a system. It should be used to provide the indicators and monitoring information needed to complete Worksheet 11b in the most comprehensive way possible. The focus here is on ecological integrity (see box below) because this is both one of the more complex areas for monitoring, and also because all natural World Heritage sites (and all protected areas) should be concerned with maintaining ecological integrity, whatever their more detailed objectives. However it should be noted that similar approaches can be used for other management outcomes.

Why measure ecological integrity?

Ecological integrity is the state of ecosystem development characteristic for its geographic location with a full range of native species and supporting processes – such ecosystems are viable, and thus likely to persist.

Most natural World Heritage sites carry out some biological monitoring. These data can contribute to a more comprehensive monitoring system, but often give an incomplete picture of ecological integrity because, for example, they focus on particular species or ecological conditions, such as rainfall or river flow. Large mammals are often monitored but are sometimes more adaptable to changing conditions than many invertebrates and plants; elephants can live in degraded forests where much biodiversity has been lost so that monitoring them doesn't always tell us about the state of more vulnerable species. Similarly, although regularly collected climate data is undoubtedly useful, routine monitoring has often been carried out with little regard as to how this relates to the condition of specific values or to overall management objectives.

Even sites with a detailed monitoring system may wish to use this methodology to ensure monitoring resources are effectively used, and a true picture of the ecological integrity of a site is developed.

The art to developing a monitoring system is to select a few indicators that capture as much information as possible about the values – such as different aspects of biodiversity and ecosystem functioning – without costing too much time or money to monitor. In the context of biodiversity monitoring, indicators need to give information about biodiversity (e.g. species, genetic richness, population dynamics and trophic structure) and ecosystem functioning (e.g. succession, vegetation age-class distributions, productivity and decomposition). Where time and money is short, priority should be given to those values that are most important for the site.

The figure below suggests a step-by-step process to assess the outcomes of management. Each step is explained in more detail in the following text. Although the steps are listed in sequence, some may take place simultaneously.

Step 1: Use Tool 1 to identify a group of values that need to form the basis of your monitoring plan

↓

Step 2: Develop a set of indicators to reflect the major site values

↓

Step 3: Agree indicator thresholds

↓

Step 4: Identify responses to a breach of the thresholds

↓

Step 5: Compare data needed with existing monitoring processes / data and identify gaps

↓

Step 6: Develop detailed monitoring protocols

↓

Step 7: Develop a data management system

↓

Step 8: Assessment of management outcomes: initially to establish a baseline and then to monitor against this baseline (see Tool 11b)

Note: although the arrows suggest a sequence, several of these stages will usually take place simultaneously.

Figure 3.4: A step-by-step process to assess the outcomes of management.

Completing Worksheet 11a: Monitoring management outcomes

The first seven steps in the figure above are discussed in more detail below with reference to Worksheet 11a, which provides a template for recording the information developed in the monitoring plan and the basis for the assessment of outcomes in Tool 11b.

Step 1: *Use Tool 1 to identify a group of values that need to form the basis of your monitoring plan*
Tool 1 helps World Heritage sites to identify major site values (Worksheet 1a) which in turn provide a focus for management through a series of management objectives (Worksheet 1b).
The need to maintain or improve the integrity of values provides the basis for developing and monitoring a series of indicators.

Step 2: *Develop a set of **indicators to reflect the major site values***
Indicators should be selected for each major value, drawing on existing objectives. They may be either quantitative or qualitative, and should ideally have or at least consider the following attributes:

- have a clear, predictable and verifiable relationship to the integrity of the value being assessed
- be sensitive to changes in the particular outcome being measured
- reflect long-term changes rather than short-term or localized fluctuations
- reflect changes that will have direct implications for management (including biophysical, social, cultural, economic and political changes)
- reflect changes at spatial and temporal scales of relevance to management
- be cost-effective in terms of data collection, analysis and interpretation
- be simple to measure and interpret
- be easily understood by non-specialists
- be able to be collected, analysed and reported on in a timely fashion
- assess impacts of known pressures and detect new pressures.

The table below provides some **examples of indicators** that might be useful for sites in terms of measuring ecological values.

What the indicator measures	Questions to be answered	Possible indicators
Size	• Is the World Heritage site large and intact enough to provide long-term security to all species? • Are species populations or habitat areas sufficiently large to maintain themselves?	• Populations of range dependent species such as top carnivores/herbivores • Populations of species that cannot survive outside the World Heritage site
Ecosystem functioning	• Is the whole ecosystem functioning sustainably? • Are food webs working?	• Specific microhabitats (e.g. dead wood, presence/absence of coral bleaching, savannah mosaic) • Specific food sources (e.g. krill population, invertebrates, fruit trees)
Renewal	• Are long-lived species renewing their populations? • Are natural disturbance patterns being followed?	• Presence of young in populations of long-lived species (e.g. of trees and corals) • Presence of natural disturbance factors and a full age-range (e.g. natural fire regimes, old trees, natural flooding patterns on rivers)
Uniqueness	• Are rare/endemic species being conserved? • Are species of special cultural value being conserved?	• Populations of rare and endemic species • Populations of species likely to be of particular concern to those visiting the World Heritage site
Diversity	• Is overall diversity being maintained?	• Occasional repeat sampling of particular plant or invertebrate groups • Population of migratory species
Threats	• Is the World Heritage site being degraded?	• Measurement of specific, identified ecological threats over time

The initial list of indicators will often be too long in terms of the budget and capacity available for monitoring and so a smaller subset will need to be selected. This process will take time, could well involve workshops to discuss the various options, and should, if at all feasible, include expert input to ensure that the best possible suite of indicators is chosen.

Worksheet 11a should be completed for each indicator (i.e. a separate worksheet for each indicator). The name of the indicator, how it relates to a **site's management values and objectives,** and the **justification for selection** should be recorded at the top of the worksheet.

Step 3: *Agree indicator **thresholds***
Crucially, indicators should be able to measure change effectively. Conservation efforts should aim at maintaining the site's values within acceptable ranges of variation in order to preserve a healthy status over the long-term. An acceptable range of variation is determined by the thresholds which, if exceeded, suggest that there is likely to be a long-term problem. Once these *thresholds* are exceeded you would expect to observe the ecological system beginning to degrade or change, recovery is unlikely if the adverse factors continue to operate and thus management interventions will be needed. For example, if fire is important to the ecological integrity of savannah, and under natural conditions it usually returns every 8–12 years, if fires occur either significantly more or less frequently then the savannah will degrade. For each *indicator* therefore *thresholds* should be defined detailing the levels above and below which urgent management intervention will be needed.

In many situations, these thresholds will be difficult to identify and in some cases may be little more than educated guesses: it may therefore be necessary to introduce a 'confidence level rating' to each threshold. Thus, where thresholds are science-based decisions backed by long-term monitoring and assessment, a *high* level of confidence can be given. Other thresholds may have only a *medium* level of confidence if based on sound judgement and long-term experience, but not be backed by research, monitoring or assessment. Thresholds with a *low* level of confidence are likely to correlate with areas which are lacking in research, monitoring and assessment and where thresholds are little more than 'educated guesses'.

Wherever possible, future research plans should include projects which will help increase confidence levels of thresholds.

The indicator thresholds should be recorded in column 1 of Worksheet 11a and their confidence levels in column 2.

Step 4: *Identify **responses** to a potential breach of the thresholds*
It is also important to identify the management interventions that will be needed if a threshold is likely to be exceeded. These can be included in the monitoring plan to help prompt quick reactions if monitoring identifies serious problems. So for example if control of a particular invasive species is an indicator and measurements show that the invasive species is spreading fast, there should ideally be a back-up plan to reduce levels (e.g. employment of workers or volunteers to manually remove the species).

Management responses can be recorded in the column 3 of Worksheet 11a.

Step 5: *Compare data needed with existing monitoring processes/data and identify gaps*
There are many ways to go about collecting information for indicators, including direct measurement by park staff; partnerships with external scientists, local communities and volunteers; or through investments in collection of baseline data, such as by Rapid Ecological Assessments. Ultimately, these various methods and monitoring priorities must be integrated within a site-based monitoring plan.

Current monitoring activities and any additional activities needed to measure new indicators can be entered in the column 4 of Worksheet 11a.

It is often possible to measure more than one indicator through a single monitoring activity (for example, monitoring coral reef health involves laying line transects and data on several indicators [e.g. corals and fish] that can be collected along the same transect). Therefore, once worksheets have been filled in for individual indicators, they should be looked at together to see how a coherent monitoring plan can be developed that involves the least cost and effort. The overall monitoring plan should be reviewed and approved by key stakeholders.

Step 6: *Develop a detailed monitoring protocols*
The plan laid out in the worksheet provides a general outline for the monitoring programme. More detailed **monitoring protocols** then need to be developed to ensure quality and credibility, so that monitoring is carried out consistently, data are suitable for comparative analysis, and any changes detected are real and not due to differences in sampling, for instance, if staff change. Monitoring protocols should be reviewed and tested, and provision for review and revision built into the protocol. Further sources of information on developing monitoring protocols are included in the box below, but ideally protocols should include:

Background information
- *Objectives:* Why monitoring is being carried out. This should be linked to the indicator(s) monitored and the thresholds used
- *Bibliography:* a list of relevant material (e.g. journal articles and reports) and information on previous activities (including constraints on monitoring activities).

Protocol design

- *Method:* Method or methods used (e.g. sampling, interviews, observation, line transect techniques, traps or strip census methodology)
- *Procedures:* Standardized procedures for collecting data, including area of monitoring, staffing requirements (e.g. numbers, required training, time allocated), equipment requirements (e.g. vehicles, binoculars, GIS, traps) and safety procedures
- *Frequency of data collection:* i.e. monthly, quarterly, annually, etc.
- *Data collection:* Indicators to be measured (e.g. species, numbers of sightings, fire frequency, average earnings of local communities)
- *Data analysis:* advice regarding analysis and comparison (e.g. use of graphs, analysis software, comparisons, etc.)
- *Data management:* Records should include the monitoring results (datasets) and the history of monitoring development and revision (see step 7).

Protocol adaptation

- *Review:* As with all management activities undertaken in a World Heritage site, monitoring activities should be reviewed regularly to ensure that not only are the right things being monitored, but that this monitoring is being carried out in the most effective way (and that resources are not being wasted on monitoring unnecessary things).
- *Revision:* Although protocols aim to ensure standardization of monitoring (for the reasons discussed above), they should also be adapted and revised if the review process indicates this need. Revision may need to take place due to changes in technology, gaps in data need, budget changes, and changing conditions on the ground including new pressures, etc.

> ***Additional information on monitoring protocols***
> *Guidelines for long-term monitoring protocols, printed in the Wildlife Society Bulletin 2003, 31(4), pp. 1000-1003. See: science.nature.nps.gov/im/monitor/protocols/ProtocolGuidelines.pdf*
> *Environment Canada's Ecological Monitoring and Assessment Network protocols on Biodiversity Monitoring; Ecosystem Monitoring and Community-based Monitoring. See: www.eman-rese.ca/eman/*
> *US National Parks Service Inventory and Monitoring Program. See:*
> *science.nature.nps.gov/im/monitor/index.htm*

Resources available for monitoring may well act as a reality-check for the process of indicator choice and monitoring needs, as most sites will have only limited budgets available for monitoring. However, developing a thorough monitoring plan can be used to highlight gaps in monitoring (e.g. new monitoring activities that are required, but for which there is no funding) and as a basis for fundraising or reallocating available budgets.

A summary of the monitoring protocols, reviewing frequency of monitoring, timing, person responsible and cost/funding, can be recorded in the last four columns of Worksheet 11a

Step 7: *Develop a data management system*
A concisely written monitoring plan, as outlined in Tool 11a, will provide a good basis for managing site monitoring, and should be an invaluable resource when site staff change. Such a plan needs to be complemented by an effective data management system for recording monitoring results. Data must be carefully stored in a form that can be readily accessed for analysis and interpretation. It is therefore essential to develop a good data management system - preferably electronic although a carefully maintained manual filing system can be effective. Monitoring programmes often fail to be useful because the data are not stored or are kept in a form that makes later use difficult.

Monitoring results recorded by park wardens at Bwindi Impenetrable National Park, Uganda.

Worksheet 11a: **Monitoring management outcomes**

Indicator: ....

Major Site Values/Objectives assessed by the indicator: ....

Justification for selection: ....

Indicator thresholds	Confidence level of threshold	Management responses	Monitoring activity/methods	Frequency	Timing	Person responsible	Cost and funding source
Level beyond which urgent management action will be needed (usually an upper and lower limit)	*The likely accuracy of the threshold (high, medium or low)*	*Review here the management responses if the indicators threshold is exceeded*	*Summarize how information will be collected (survey, use of monitoring equip-ment etc) and whether monitoring is already taking place (current) or new (needs to be developed)*	*Identify the proportion of staff who are trained in each category*	*When?*	*By whom?*	*List the likely cost and whether money is currently available*
			Current:				
			New:				
			Current:				
			New:				

Worksheet 11b: Assessing Management Outcomes

Once you have developed or recorded your monitoring plan using the template suggested in Tool 11a, Tool 11b can be used to assess the effectiveness of a site in achieving its management objectives and conserving the major values of the site.

Completing Worksheet 11b: Assessing Outcomes of Management

1. A separate worksheet is completed for each value (as recorded in Worksheet 1a).

2. List each indicator which is being assessed for that value in column 1 (these can be copied from Worksheet 11a).

3. The thresholds which have been developed in Tool 11a are then listed in column 2.

4. The next step is to analyse the status and trends of all the indicators and assess performance in relation to the agreed thresholds. In many cases, status will be meas-ured numerically (e.g. number of migrating birds recorded, area of intact grassland remaining, number of jobs created for local people by the World Heritage site), although in some cases a more qualitative measure will

be needed (e.g. perceptions of stakeholders relating to pride in the site, or visitor opinions). For trends, indicate whether the status of the indicator is stable, improving or declining over time. Detail will depend on the sophis-tication of the monitoring system: sometimes hard data will be available, while in other cases indicators can be judged by experts or by agreement amongst stakehold-ers. A narrative summary of the analysis should be added to column 3 of Worksheet 11b.

5. Column 4 summarizes the status and trend of the indi-cators in a graphic which provides an easily understood summary of the health of an indicator (formats for these graphics are suggested in the figure below). The rating system suggests two types of information: the tinted boxes summarize the status of the indicator, and then arrows summarize the trend (i.e. whether the condition is getting better or worse). Three levels of assessment of status are suggested: (1) 'significant concern' if the indi-cator suggests that serious problems are developing; (2) 'caution' when there may be developing reasons for concern, and (3) 'good' when all appears to be fine. Three levels of assessment of trend are also proposed: here arrows are used to record whether the condition of a particular indicator is (1) improving, (2) unchanged or (3) deteriorating.
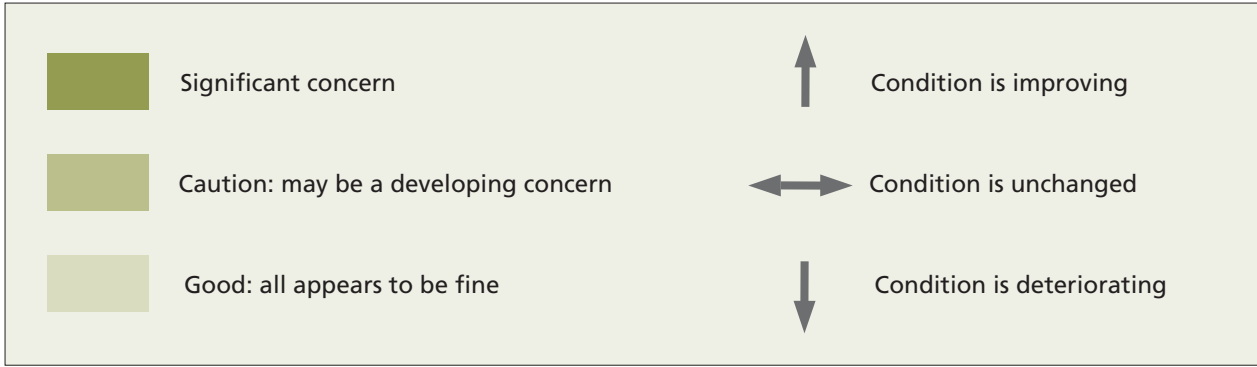
Figure 3.5: Graphics for summarizing the outcome assessment.

Decisions about the status and trends should be based on quantitative or, at least, well-argued qualitative data wherever possible. Judgements should ideally be made collectively by a group of stakeholders.

6. A comparison can then be made with any previous assessments. This can be recorded in column 5 of Worksheet 11b, either as a narrative or by using the graphics suggest in the figure above. Details (i.e. date of any previous assessment) should also be noted here.

7. For each indicator, any recommendations and follow-up actions arising from the assessment can be listed in column 6. Achievement of these actions can then be followed up before the next assessment is conducted.

Worksheet 11b: **Assessment of Outcomes of Management**

Major Site Value(s): ....

Indicator	Threshold	Status of indicator in relation to threshold	Rating	Comparison with last assessment	Management interventions: urgency and details of actions
These should have been recorded in Worksheet 11a	*These should have been developed in Worksheet 11a*	*Using the monitoring data gathered for each indicator, assess the status and trend of the indicator in this text field.* *Is the status of significant concern, developing concern or fine?* *Is the condition improving, unchanged or deteriorating?*	*Summarize the status and trend of the indicator using the graphics*	*How does this compare with any previous assessments?*	*Identify any specific actions needed in response to information collected in the monitoring and assessment of objectives*

Tool 12: Review of Management Effectiveness Assessment Results

This tool summarizes the results of the assessment and helps to prioritize management actions in response to the assessment's findings.

A relatively thorough assessment of management effectiveness using the tools included in this toolkit, or equivalent systems, should reveal a considerable body of information on the management of a World Heritage site. But the assessment of management is only the first step: assessments are only worth the time and energy if they lead to changes in management and so all assessment should be concluded by the development of a strategy to implement the results.

As we noted in Table 2.1, assessment of management effectiveness will often be linked to specific management requirements or ongoing projects, such as revisions of the management plan, development of annual work plans and budgets, or to aid various reporting requirements. But as well as informing specific management processes such as these, the assessment may also indicate where additional activities are needed, for example: developing new monitoring requirements, revising staff working practices, or developing better budgeting processes. In some cases, these activities can be implemented immediately; in others funding will need to be sought.

Completing Worksheet 12

For each of the tools detailed in this toolkit, space is provided to record opportunities, recommendations and follow-up actions that have been identified in the assessment. Worksheet 12 summarizes these to provide a concise list of follow-up actions that the assessment process has identified.

1. The worksheet divides the various tools into the six elements of WCPA management effectiveness framework which form the organizing structure for this whole toolkit. These are listed in column 1.

2. Next, all the tools are listed (column 2). Worksheet 12 should be adapted to reflect the tools used in the specific site assessment. In other words, if sites have used a mixture of the tools in this toolkit, existing monitoring and adaptations, then Worksheet 12 will have to be adapted to reflect this.

3. For the summary of Tool 11, we have provided space to record the overall trends in the status of key values. Where more than one indicator is used to assess the status of a value, it will be necessary to reach a conclusion on general status and trend summarized across the indicators used.

4. Finally, by each tool the worksheet provides space for follow-up actions recorded in the assessments (column 3). This tool can then be used to prioritize activities and assess the implementation of actions over the coming years.

Worksheet 12: Review of Management Effectiveness Assessment Results

Element	Tool		Follow-up Actions
Elements of the WCPA framework	*List the tools used (adapt as necessary to the particular assessment)*		*Summarize follow-up actions listed at the end of each worksheet*
Context	Tool 1: Identifying Site Values and Management Objectives		
	Tool 2: Identifying Threats		
	Tool 3: Relationships with Stakeholders/Partners		
	Tool 4: Review of National Context		
Planning	Tool 5: Assessment of Management Planning		
	Tool 6: Design Assessment		
Inputs	Tool 7: Assessment of Management Needs and Inputs		
Processes	Tool 8: Assessment of Management Processes		
Outputs	Tool 9: Assessment of Management Plan Implementation		
	Tool 10: Work/Site Output Indicators		
Outcomes	Tool 11b: Assessing Outcomes of Management		
	List each value that has been assessed	*Summarize the trend of each value based on the indicators*	

4

Case Studies

Rickshaw pullers waiting for clients at Keoladeo National Park, India.

© Nigel Dudley

Introduction

The toolkit described in this publication was not developed in isolation by researchers, but was developed gradually over time in active cooperation with staff at protected area agencies responsible for nine natural World Heritage sites in Africa, southern Asia and Latin America, as well as other World Heritage and protected area specialists from a range of disciplines (i.e. conservation planning experts, social scientists etc). This structure offered the project staff and consultants the opportunity to work with protected area managers, rangers and academics in a number of different countries over a period of seven years, as assessment systems were developed and applied. It allowed the project to get immediate feedback on whether the tools being suggested worked or not: on many occasions park staff sat down with project staff and talked through and modified approaches. As a result this toolkit has gone through three previous drafts as approaches were improved over time.

Being able to review several monitoring and assessment cycles helped build-up experience on the practicalities of institutionalizing assessments. It also highlighted differences between natural World Heritage sites, where the vast range of habitat types, values, pressures and resources means that very different approaches are needed.

The following case studies summarize how assessment has been applied in three of the test sites, with examples from southern Asia (Keoladeo National Park in Rajasthan, India); Latin America (Sangay National Park in Ecuador) and Africa (Bwindi Impenetrable Forest National Park in Uganda). They each concentrate on differing elements of the assessment process and of the Enhancing our Heritage project process as a whole. Each case study starts with a brief summary of the World Heritage site; the main body of the text then reviews the park management, highlights some of the specific activities in the Enhancing our Heritage project which the site focused on, and then reviews implementation, results and future actions. A number of 'stories from the field' provide a little local colour to the case studies, and give tips for carrying out the assessments from the perspective of sites that took part an active part in developing the *Enhancing our Heritage Toolkit.*

The case studies have drawn extensively on reports developed by people involved in the project at the various sites. These inputs are gratefully acknowledged.

Keoladeo National Park, India

Park profile

Keoladeo National Park (KNP) is located in the Bharatpur district of the state of Rajasthan. It is a wetland of international importance, famous as both a wintering ground for Palaearctic migratory waterfowl, and for its large congregation of non-migratory resident breeding birds. It has been the only wintering ground for the central population of the endangered Siberian Crane *(Grus leucogeranus)*, which may now be extirpated.

Keoladeo covers an area of 29 km^2 and is situated on the extreme western edge of the Gangetic basin, once the confluence of the Gambhir and Banganga Rivers. Paleobotanical studies have traced 26,000 years of the area's history, from a large open water lake through four dry phases, to finally becoming a marshland. At the end of the nineteenth century, the park's area was developed through the modification of a natural wetland depression into a duck shooting reserve. This reserve was intensively managed to support large numbers of migratory waterfowl. Keoladeo was declared a national park in the 1980s and a World Heritage site in 1985 (then criteria iv, now criteria x).

KNP's unique mosaic of habitats, including wetlands, woodlands, scrub forests and grasslands, support a wide diversity of plant and animal species. Its flora includes 375 species of flowering plants of which 90 are wetland species. The fauna includes more than 350 species of birds, 27 mammals, 13 reptiles, 7 amphibians and 43 fish. The wetlands support the largest heronry and congregation of cranes in the region. The park lies on the Central Asian Flyway of the Asia Pacific Global Migratory Flyway, and is a staging and wintering ground for a huge number of migratory waterfowl breeding in the Palaearctic region. The grasslands are an important roosting site for Marsh Harrier *(Circus aeruginosus)*, and in the winter, the globally threatened Greater Spotted Eagle *(Aquila clanga)* and Imperial Eagle *(Aquila heliaca)* can be found in the park.

The city of Bharatpur lies on the park's periphery. About twenty-one villages and hamlets are located around the park with a population of some 14,500 people. The economy of these villages is primarily pastoral, dependent on milk sales and agriculture. The name 'Keoladeo' comes from the temple of Lord Siva, who is also known as keval ek dev or 'the only Lord'; the temple is situated in the park and is of religious significance to local communities who regularly visit the site. Keoladeo is also part of the 'Golden Triangle' *(Delhi-Agra-Jaipur)*, and as such, is very popular with both domestic and foreign tourists. This results in important tourism revenue generation for both local communities and the State Government.

Park management

Keoladeo National Park (KNP) is an artificially created wetland site; the area is totally enclosed by a wall immediately outside of which lie agricultural fields and human settlements with no buffer zone. Keoladeo has a long history of intensive management after originally being developed as a shooting reserve in the nineteenth century. The unique ecosystem that developed has been intensively managed to provide a habitat for both migratory waterfowl and resident land and water birds.

The area was first protected under the 1925 *Bharatpur Forest Act.* In 1956, the local Maharaja handed over management of the reserve to the Government of Rajasthan, although the Maharajas retained their hunting rights until 1972. In 1967, the area was declared a protected forest under the provisions of the *Rajasthan Forest Act (1953)* and in 1981, its conservation status as a wildlife sanctuary was raised to that of a national park under the *Wildlife (Protection) Act (1972)*. It was declared a World Heritage site in 1985.

Keoladeo's 'man-made' ecosystem requires sustained and intensive management in order to maintain its ecological characteristics. Management practices maintain different water levels over the park to provide habitats for a wide diversity of waterfowl. Other key activities include control of invasive alien species, such as water hyacinth *(Eicchornia crassipes)* and efforts to control the prolific growth of *Prosopis juliflora.*

KNP's management objectives are:
• To maintain the ecological seral stages of the ecosystem for avifaunal diversity in particular, and other biodiversity in general.
• To provide an enriching wilderness experience and visitor satisfaction through conservation education and wildlife interpretation programmes.
• To provide site-specific, eco-friendly packages of measures to reduce dependence of local communities on protected area resources and to provide alternate livelihood options.

Enhancing our Heritage Process

The Enhancing our Heritage (EoH) process in South Asia was coordinated by staff from the Wildlife Institute of India (WII). An initial management effectiveness evaluation was carried out in Keoladeo in 2002-03, facilitated by WII with the close cooperation of site managers (WII, 2003). WII also produced a short video giving a park profile and details on management effectiveness evaluations for all the South Asia parks. This was a useful training tool and means of sharing the experiences of the Asian sites with other EoH pilot sites around the world. A second management effectiveness evaluation in KNP was conducted through a series of stakeholder consultations organized between February and October 2007 (WII, 2007).

Stories from the field: Holding stakeholder workshops to complete the assessment

During the second assessment workshop, the WII team developed some best practice guidance on holding stakeholder workshops as part of the evaluation process:
• *Considerable time is required before the workshop to ensure the presence of all stakeholders. In the final assessment workshops in Bharatpur, for example, no women from the local community were initially present. Additional effort and time may be required to get some stakeholders involved in these assessments. In many social/cultural scenarios it might be better to have separate meetings with the women as in some communities women do not speak in front of the men of their own community.*
• *In some cases, it will be important not to include all stakeholders within the same workshop. Where there has been a history of conflict (as in Keoladeo between the local community and forest department), the assessment process could become dominated by relationship tensions.*
• *In the Indian context, and probably in many others, it is important that local communities are provided with a meal when taking part in the assessment workshop/stakeholder consultations. This is an important gesture of goodwill, as communities often forego a workday to be present at these meetings.*
• *Stakeholder groups require time for ice-breaking, trust building, etc to understand what is being done and why. They also need to trust fully that their viewpoints are reflected in the final assessment report. In many cases, this will require a translation of the toolkit and the completed assessment into the relevant local language.*
• *Facilitators need to be fully familiar with the assessment process and the* Enhancing our Heritage Toolkit *(or adaptation of the toolkit) being used. A number of facilitators are required to carry out the exercises with different stakeholders.*
• *Baseline data has to be in place, in other words, results from previous assessments, monitoring and research reports, budget information, details of annual work plans, etc.*
• *Time needs to be allocated for all the team members/facilitators to compile all the information gathered during the assessment. This is best done shortly after the event itself, while still fresh in everyone's mind.*

Implementation

One of the main gaps identified in the first assessment related to the need for:
• More research and baseline information on issues relating to water quantity and quality
• Additional monitoring of indicators of ecological health
• Further development of livelihood options for the local

communities who can no longer freely use the resources in KNP.

Through the EoH project, a number of research, monitoring and outreach initiatives have taken place, including monitoring of bird species - in particular raptors, water quality monitoring in and around the protected area, and detailed documentation and monitoring of birds in the satellite wetlands around Keoladeo. A monitoring and evaluation system is recommended as part of the management plan and will be incorporated into the revised plan in 2008. A variety of methods were used in the development of the research and monitoring work carried out between 2004 and 2006, from discussions with the local community to bird counts. The work was coordinated by WII and carried out by experts from a variety of fields.

Pumping ground water into the wetland areas of Keoladeo National Park, India.

Water quantity and quality

Hydrology and water scarcity in KNP

The major threat to the Keoladeo wetlands is lack of water due to the construction of dams that restrict water flow from the associated river systems. These changes affect not only biodiversity values, but also decrease groundwater recharge by lowering the water table which surrounding villages depend on for their pumped water supply. A study from 2003 to 2006, partly funded by the EoH project, reviewed the growing water crisis, its effects on catchment health and the hydrological functions of the park, with the aim of calculating the actual water requirements of KNP from both a management and ecosystem health viewpoint.

Semi-arid monsoonal depression wetlands such as Keoladeo are dependent on watershed conditions and rainfall for water. For centuries the region's water has been regulated from two rivers, the Gambhir and Banganga, through a system of dykes and canals built for the dual purpose of flood control and irrigation. Together, these rivers were the principal sources of water to KNP, but both have been increasingly dammed upstream from the park. The Banganga has long since dried up, putting pressure on the Gambhir to supply water to Bharatpur. In recent years, the park has faced severe water shortages, even during periods of adequate rainfall, as water has not been released into the park from the dams. An analysis of water distribution carried out during the study, part-funded by EoH, clearly indicates that if water is received in the Ajan Dam on the Gambhir, then a good percentage is released to KNP (see Figure 4.1). However, as 100% of the river
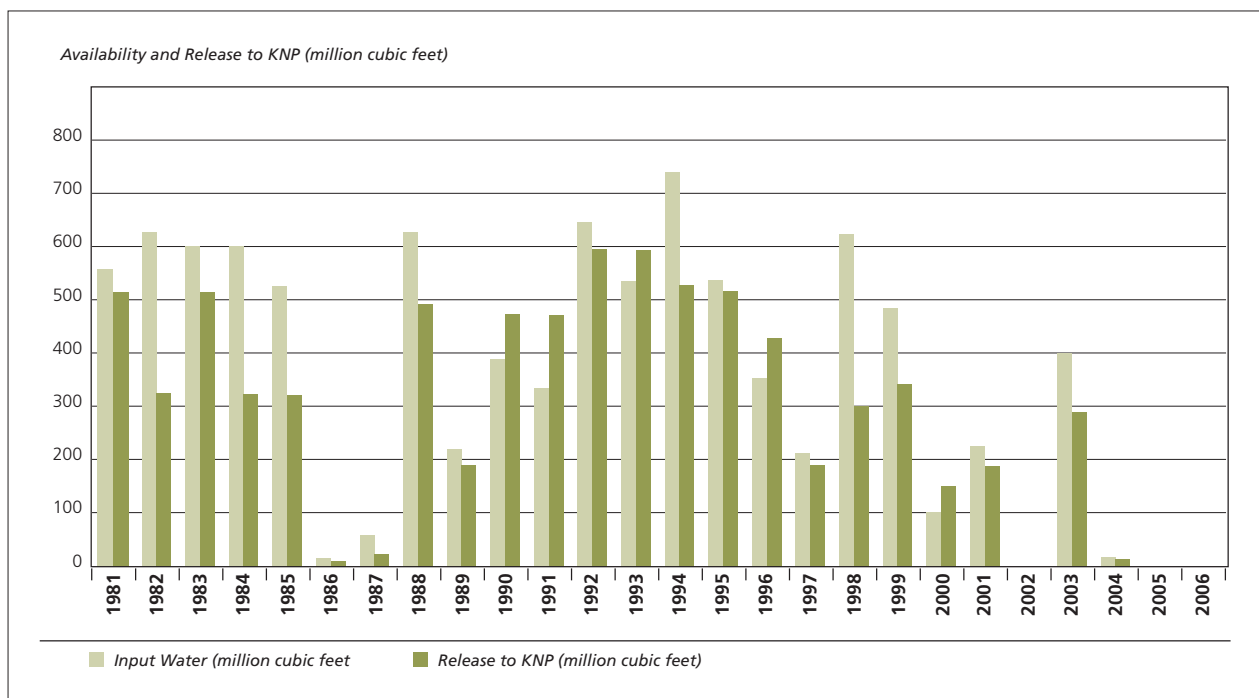
Availability and Release to KNP (million cubic feet)

Input Water (million cubic feet
Release to KNP (million cubic feet)

Figure 4.1: Water input and release to KNP from 1981 to 2006.

flows of the Panchan, Kakund and Jaggar rivers (all tributaries of the Gambhir River), have been dammed, the primary sources of water for the Ajan Dam and, thus KNP, is the release of water from these dams upstream. In 1991, the Panchana Dam was constructed at the headwaters of the Gambhir to mitigate flooding and meet local agricultural needs. The problem of limited water release is due to the increasing water demands of farmers from the thirty-five villages in the Panchana Dam area, whilst those in the 388 villages downstream of the dam have all suffered adverse impacts due to the lack of water flow in the Gambhir River. As a result, the water scarcity at KNP has become critical and is reflected in the diminishing numbers of migratory waterfowl, failure of the heronry and increased growth of *Prosopis juliflora* in the wetland area.

The study concluded that an optimum quantity of about 18 million cubic metres (MCM) of water is considered necessary for conserving the ecological characteristics of Keoladeo. Of this, 15 MCM has to be augmented while 3 MCM is contributed by rainfall. Given the problems with the 'traditional' supply of water to the park, suggested options for increasing the water supply to KNP include:

- The Chiksana Canal Floodwater Utilization Proposal: The proposal seeks to utilize the rainwater runoff of the Ajan Dam, which is usually lost through this canal. It can provide about 0.36 MCM water daily during the monsoon months.
- Emergency Groundwater Utilization Plan: The proposal is to drill eleven deep borewells in the park and construct a large deep water body to store water from the Ajan Dam.
- Goverdhan Drain Proposal: The Government has agreed in principle to this project, which would provide 15.57 MCM of water to Keoladeo, and would be sufficient to meet the needs of the park.

Studying water quality

Water quality is as important for the conservation of a wetland site as water quantity. Therefore another study carried out under the auspices of the EoH project on water quality (Singh, 2005) aimed to:

- develop baseline data for future water quality monitoring
- provide information on significance of components monitored and provide recommendations on fluctuations or drastic digression in quality which would trigger management interventions
- establish monitoring protocols for future monitoring
- feed into effective adaptive management of KNP.

Recommendations and monitoring protocols for physico-chemical analysis were developed and baseline results – which found significant fluctuations in salinity, total dissolved solids and chlorides – indicated the need for management interventions, particularly during the breeding season.

A landscape approach to conservation

Even if the various scenarios to maintain water quantity in KNP discussed above are successful, wetland ecosystems cannot function in isolation. A study was initiated with EoH funding in 2005 to survey satellite wetlands around KNP that are of high value to both migratory and resident water birds. KNP is fully protected because of its role as a large staging, moulting and roosting ground, as well as providing foraging sites for many water bird species. However, because it is only 29 km^2 in area, waterfowl have to meet their food requirements largely from aquatic habitats scattered around the region.

Many of these wetlands have high conservation values for several migratory and resident water bird species. During the study, a total of 76 water bird species were recorded from the KNP, whereas 94 species were observed in 34 satellite wetlands.

The study indicates that the entire ecosystem consisting of the national park and its surrounding satellite wetlands should be protected, if the long-term survival of the area's water birds is to be accomplished. For example, during 2006, when drought prevailed in the area, increased numbers and species of water birds were observed in many of these satellite wetlands. However a range of threats affect these satellite wetlands including commercial fish farming, reclamation, draining water for irrigation, water-hyacinth infestation, pesticide run-off, factory effluents and bird trapping. It is recommended that these threats be mitigated through a participatory conservation approach.

Biodiversity monitoring

Although some ecological monitoring was already taking place at KNP, the EoH project helped to fill monitoring gaps revealed by the initial assessment. A study funded by EoH devised a programme for ecological monitoring of the park and its environs which is now being implemented (Verma, 2005). The objectives of this monitoring programme are to:

- Monitor population trends of the raptor community - the top avian predators - as an indicator of ecosystem health
- Monitor composition and population trends in 'heronry'
- Survey satellite wetlands around KNP for avifaunal diversity and evaluate the role of satellite wetlands for migratory and resident birds, especially waterfowls.

The monitoring report developed by the EoH project provides baseline data and suggestions for future monitoring protocols.

Livelihoods and local people

Following the provisions of the Wildlife (Protection) Act of 1972, grazing of livestock inside KNP was banned in 1982 when the area was given national park status. Violence erupted in opposition to the ban and seven villagers lost their lives. Villagers living around the park were denied access through the park and gates along the boundary wall were closed. This resulted in the alienation of people from both the park and its management.

Building relations with local people and increasing livelihood options has thus been a major focus of management over recent years. The EoH project specifically included stakeholder groups in the assessment process and carried out a research project looking at benefit-sharing between the park and local people (Bhatt, 2005).

Stories from the field: An innovative resource-sharing project
Bhatt's (2005) study illustrated the benefit of programmes aimed at improving local livelihoods. Indian legislation does not allow for resource use from protected areas. However, many local people believe that use of the park's resources is their traditional right. In Keoladeo, the area now protected from resource use was previously the private property of the Maharaja and was open to villagers as grazing grounds for a nominal payment. However, a recent innovative and participatory project aimed at controlling an invasive species has allowed the local community access to obtain certain benefits from the park again.

Prosopis juliflora is an evergreen shrub native to the South American region. It is fast growing, nitrogen-fixing and tolerant to arid conditions. Ever since it was introduced into the park, this shrub has threatened the fragile ecosystem of the KNP by reducing its wetland characteristics.

Eco-development Committees (EDCs) in fifteen villages around KNP have been helping park managers control the shrub. Each family was allotted a 10x100 m plot and was asked to remove the P. juliflora trees including new seedlings and saplings by root. The villagers were

permitted to remove the material for their own use free of cost. By the end of June 2007, a total of 1,378 people belonging to 338 families working under 14 EDCs had come forward to help park management and obtain resources from the park.

KNP is a popular tourist destination, both nationally and internationally. The site thus provides livelihoods for a large number of guides and rickshaw pullers, hoteliers and tour operators. The park can receive up to 4,000 visitors a day

during public holidays, but tourist numbers can fluctuate greatly depending on the time of year and condition of the wetland. As KNP is a highly-visited park, an effective system for tourism management and park interpretation has to be in place. From time to time, the protected area management gives training in bird identification and KNP values to guides and rickshaw pullers, enabling them to earn more money. However, the protected area invariably lacks funding support to carry out regular and varied training. As part of the EoH project, a training needs assessment was carried out and local guides and rickshaw pullers were given training in communication skills enhancement, flora and fauna identification, and tourism management. Training needs for forest department staff were also identified, and courses were subsequently offered training in communication skills, life-skill education and tourism management.

Results and impacts

The need for adequate water to sustain the wetland ecology of Keoladeo is clearly the most urgent issue facing the management of the park. Without water the essential values of the park are lost: the wetland habitat and associated biodiversity decline, the area's ecology changes as invasive species and scrub predominate, groundwater available to the local community declines, and tourist numbers and the related economic benefits to the local community of tourism are reduced.

Although the EoH project could not address the long-term issues for KNP due to the water source issues upstream, the study undertaken to determine optimum water levels, review water release issues, and highlight possible responses to the water crises has provided important baseline information. Similarly the project has helped provide baseline data on water quality and on developing a landscape approach to the conservation of wetlands in the KNP area.

The future

The KNP 'water crisis' has underlined the need for integrated management planning in a regional context. The processes of monitoring of satellite wetlands and management intervention initiated under the project need to be sustained, and the conservation needs of satellite wetlands should be addressed in the management of KNP.

Stories from the field: Linking ecological research with community needs
The recent years of drought in Rajasthan exacted a heavy toll on local people who were hired as tourist guides and rickshaw pullers in KNP. Reduced water in the park resulted in limited birdlife and consequently a decline in tourist numbers. Many village wetlands with water have now become a refuge for birds. Research into satellite wetlands recommended that if villagers were interested, they could develop these wetlands into

tourist spots, and also benefit from tourism revenues. The possibility of developing home stays, which could provide tourists with a village experience, and also earn revenue for local communities, was discussed and local community members were enthusiastic about these enterprises. Innovative ideas like these need to be developed to ensure that a bad year does not ruin the situations of people economically dependent on tourism revenue.

References and sources

Bhatt, S. 2005. *Opportunities and Limitations for Benefit Sharing in Select World Heritage Sites,* India, EoH Project, WII, India.

Singh, R. 2005. *Water Quality Assessment in and around Keoladeo National Park, Bharatpur, Rajasthan;* Technical Report 9, EoH Project, WII, India.

Verma, A. 2005. *Ecological monitoring in Keoladeo National Park and its environs for enhancing management effectiveness,* Technical Report 10, EoH Project, WII, India.

WII. 2003. *Initial Management Effectiveness Evaluation Report: Keoladeo National Park, Bharatpur,* EoH Project, WII, India.

WII. 2007. *Final Management Effectiveness Evaluation Report: Keoladeo National Park, Bharatpur,* EoH Project, WII, India.

Sangay National Park, Ecuador

Park profile

Sangay was declared a National Park in 1979 under the framework of the first National Protected Areas System Conservation Strategy of Ecuador. Its half a million hectares in the Eastern Cordillera region of the Andes protects a spectrum of ecosystems from tropical forests on the foothills at 900 m, through cloud forests and paramos, to permanent snow-covered volcanoes at over 5,000 m. This diversity of ecosystems contributed to the area being inscribed as a World Heritage site in 1983.

The park is home to some 140 amphibians, reptiles and mammal species, and 343 bird species. Its isolation provides protection to endangered species such as the spectacled bear (*Tremarctos ornatus*), mountain tapir (*Tapirus pinchaque*) and Andean condor (*Vultur gryphus*). The Sangay ecosystem is also of great importance for its hydrological functions and soil carbon sequestration potential.

Sangay is an important source of natural resources for its neighbouring communities. There are few settlements inside the park, particularly in the south, but there are some 130 indigenous communities (Quichuas-Puruháes in the northwest and central areas, Quichuas-Cañaris in the south and southwest, and Shuar in the south and southeast), and Mestizo peasants living in the buffer zones. This ethnic diversity is reflected in the range of traditional knowledge such as stories, legends, myths and traditional practices associated with the park. The buffer zone populations mainly practice a subsistence economy based upon access to and utilization of local natural resources.

Park management

Sangay National Park (SNP) is managed by the government of Ecuador under the Ministry of Environment and regulated by the Forestry and Conservation of Natural Areas and Wildlife Law (1981) and the Environmental Management Law (1999). Park management is divided into three administrative regions: the Andean region high zone based in Riobamba, the Amazon region low zone based in Macas, and the south zone based in Azogues.

The concept of management effectiveness is not new to the managers of SNP: four assessments have taken place over the last decade:

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Sangay National Park, Venezuela.

- The first was undertaken as part of a process leading to the preparation of the 1998 management plan
- An assessment was undertaken in the 1990s using De Faria's (1992) methodology
- In 1999, the Environment Ministry of Ecuador, with the support of a GEF Project, assessed the management of the national protected areas system and established a baseline for future reference using a modification of the De Faria methodology
- In 2002, Fundación Natura assessed the management effectiveness of the park as part of the WWF-DGIS Tropical Forest Portfolio, using a methodology adapted from the WWF-CATIE methodology (Cifuentes, et. al. 2000, which itself was developed from the De Faria methodology).

While three of these studies applied essentially the same methodology, the criteria and variables chosen were different, making comparison of the results difficult. The sources of information also varied considerably. In the second and third evaluations, all information came from park administration and staff. For the 2002 evaluation, other stakeholders participated, including community leaders, park administration, Biodiversity and Protected Areas Directorate, Forestry Districts, as well as staff working with NGOs in the area. The main deficiency in all of these assessments was that no provisions were made to implement their recommendations. The final (2002) assessment thus calls for the use of a standard methodology to allow comparison with other World Heritage sites. This would facilitate improved conservation status monitoring, evaluation and reporting to the *Convention for the Protection of Natural and Cultural World Heritage*.

Enhancing our Heritage process

The EoH project in Sangay was coordinated by the Ministry of the Environment, Fundación Natura and EcoCiencia, working with a broad range of international, public and private sector organizations. Implementation began with two workshops organized by the IUCN offices for Central America (IUCN-ORMA) and South America (IUCN-SUR). The first introduced the project, trained key SNP stakeholders in the WCPA Management Effectiveness

Assessment Framework, and reviewed results obtained from the previous assessments. The workshop was attended by twenty-five people representing different institutions (government, NGOs, communities and indigenous groups, among others). The workshop defined the project implementation process and identified areas of the EoH toolkit where there was sufficient information to make an assessment, and those elements with little or no information. The participants also agreed on a list of work principles for the project:

- Commitment to the conservation of SNP and its areas of influence
- The implementation process will be transparent and be trusted
- The process will promote social equity
- The process will be permanent and participatory
- During the process there will be inter-institutional coordination, synergy and consensus
- There will be reciprocity and respect in the use of the information.

Two groups were nominated to direct implementation of the project:

- A consultation committee, with representatives from all the institutions directly related to SNP was responsible for approving the project work plan, defining and implementing policies, supervising the operational committee, and reviewing progress reports.
- A local team, comprising representatives from Fundación Natura and EcoCiencia, was responsible for implementing the assessment work.

Stories from the field: Learning to work together

The main weakness identified during the first project workshop was the lack of experience among the represented institutions in cooperating as a team. All involved were committed to the park and concerned about the future of SNP, but had never attempted to work together towards a common goal. During the workshop, emphasis was placed upon this issue and team-building was encouraged in all sessions. By the end of the workshop, although these barriers had not been completely overcome, significant progress was made and the group had even agreed on a joint slogan for the project: Together for the Sangay National Park.

The local team was tasked with developing a draft assessment before the second workshop, which aimed to concentrate on providing technical assistance in completing the initial EoH assessment. The participants worked in small groups to review progress, identify further information needs and the location and availability of data, and to discuss information gaps. The initial assessment was prepared in August 2002 (Bajaña et al, 2002); however, this

report relied largely on data from the earlier 2002 assessment using the WWF/CATIE methodology and textual commentary on the other components of the EoH assessment system where the assessment team had identified gaps in information. These gaps (see box below for examples) in the availability and quality of the information regarding SNP management formed the basis for developing monitoring and assessment processes throughout the rest of the EoH project. A revised initial assessment was prepared in 2005 using all the tools in the EoH Toolkit, addressing many of the gaps identified in the first draft.

Gaps identified in the initial assessment

Context:
- *Biological inventories are incomplete.*
- *Management objectives have not been identified.*
- *No systematized information on the site's ethnic and cultural diversity exists.*
- *Only minimal information is available on the archaeology of SNP.*
- *Only a few studies have been carried out on the environmental services that the site provides.*
- *No systematized information exists on the financial support provided by the government and national and international NGOs to the protected area.*

Planning:
- *The management plan does not identify priority activities and tasks and is not updated.*
- *No direct links exist between the management plan, the annual operational plans, and the monthly plans from the Environment Ministry.*
- *No information is available on the criteria or the methodology used for the management zoning in the park, which limits its application and usefulness.*
- *Information on the land tenure within the park is incomplete and a strategy for land-tenure conflicts resolution does not exist.*

Inputs:
- *No information is available regarding the inputs required for adequate park management.*
- *No budget for site management exists.*
- *Financial information is dispersed and is not available for park administrators.*

Process:
- *Mechanisms have not been defined for implementing recommendations from the management assessment carried out in 2002.*
- *A strategy for establishing alliances with strategic partners needs to be designed.*

Outputs:
- *The management plan does not include tools (indicators, milestones, etc.) that allow monitoring of activities.*

- *Information on the accomplishment of activities in the annual operational plans are not systematized, and no record exists of activities accomplished in previous years preventing comparison and analysis of past performance.*

Outcomes:
- *Management objectives and monitoring and assessment mechanisms for their conservation status have not been identified.*
- *Information gathered by the socio-economic monitoring programme for the SNP consists of baseline information; however, it does not identify tools for monitoring key elements or indicators for assessing park management.*

Implementation

The EoH assessment process brought the many stakeholders involved in management of the park together in a new way. Various NGOs, government agencies and community organizations that had not previously worked together cooperated in undertaking the assessment. This new approach carried on through to completion of the management plan and other activities for the park. The partners developed joint work programmes across five governmental agencies and NGOs, with funding coming from various internal and project sources in addition to EoH. The changes to park management over the seven-year period of the EoH project are, thus, not the result of one project's activities, but rather the result of a series of joint initiatives developed under this cooperative approach. These joint initiatives should help sustain the general goal of the project agreed at the first EoH workshop: to promote an efficient and adaptive management approach for *SNP as a World Heritage site by incorporating monitoring and evaluation tools that allow improvements to the park's management.*

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Workshop to discuss management effectiveness in Sangay National Park, Ecuador.

Results

The second assessment, completed in August 2007 (Ministry of the Environment, 2007), was a substantially different document from the first draft of the initial assessment carried out in 2002. It reflected the many projects initiated in SNP following the identification of the gaps in management information, planning and assessment identified in the first assessment.

The format of the second assessment uses a series of tools adapted mainly from the EoH Toolkit, but also from various allied methodologies, in particular elements of The Nature Conservancy's Conservation Action Planning (CAP) methodology. Together, these are applied to form a comprehensive baseline for future monitoring and assessment of SNP. The assessment reflects the major progress made at the site over the last few years in developing more effective management, monitoring and assessment systems.

Major elements of the assessment include:
- *Site values linked to management objectives:* In 2003, as part of the EoH Project, a study to develop management objectives for the park was carried out based on TNC CAP methodology (the inspiration behind EoH Tool 1) (Ministry of the Environment, 2004). The objectives developed considered both the conservation and sustainable use of the natural resources based on biological and ecological factors. The analysis also included the socioeconomic and cultural values of the protected area. The process was developed with a range of stakeholders including park rangers, managers, municipalities, community representatives and support organizations such as Fundación Natura, EcoCiencia, the National Environmental Fund and the Escuela Superior Politécnica de Chimborazo (ESPOCH). Table 4.1 below lists the eight values identified in the process. The second assessment document shows how these values are represented within the twelve specific objectives of the park and how they relate to the criteria for which the park was originally nominated as a World Heritage site.

The development of values and objectives for the park has been a major output of the EoH project in Sangay. These provide the foundation for the assessment of management effectiveness and are crucial to the ongoing review of the management plan.

- *Threats:* the second assessment also includes a comprehensive assessment of the threats facing the newly-defined park values. The three major threats to Sangay are cattle herding, agriculture and uncontrolled tourism, and the two most threatened values are the Tungurahua volcano and sacred/prohibited sites.
- *Inputs:* Although identified as a major challenge in the initial assessment, the second assessment includes an evaluation of both staff needs and budget/funding sources. The assessment records fairly good levels of staff training overall, but there are far less contracted park guards than required and their level of training is insufficient. The assessment also records budget shortfalls – particularly in the southern zone of the park, which receives less external funding.
- *Processes:* The aim of the process assessment is for protected areas to develop basic management performance standards. In Sangay, the development of standards was a participatory process including the involvement of staff from the park, regional offices, protected area and wildlife offices of the Environment Ministry, plus representatives from communities associated with the management of the area, as well as other outside experts that have worked with the park. The overall rating indicates that park management is 'good' (on a scale of poor, regular, good and very good).
- *Outputs:* An assessment of the level of implementation of the administrative plan was carried out using the categories suggested for monitoring implementation of the management plan in the EoH Toolkit. The assessment was carried out in the three management zones of the park. Overall the results showed progress on 70% of the actions in the management plan.
- *Outcomes:* As suggested in the EoH toolkit, the assessment of outcomes in the second assessment of SNP includes two sections: firstly, biodiversity health is

Table 4.1: **Main values of SNP**	
Biodiversity	Andean bear and tapir
Other natural	Threatened native forests ('Guarumal', 'Colepato', 'Llusín' and those near the Guamote-Macas road)
	Sangay Volcano
	Tungurahua Volcano
Cultural	Camino del Inca (Capaq Ñan – 'Inca Trail')
	Sacred or prohibited natural sites
Financial	Lake systems with visitation potential (Osogoche, Sardinayacu, Atillo, Culebrillas, and Altar)
	Microwatersheds that generate identified environmental services

assessed using an adaptation of the TNC CAP methodology, and secondly, additional information is provided on the assessment of specific management objectives following research and monitoring projects. The results of a variety of projects undertaken with the help of EoH, as well as other projects implemented by the Fundación Natura and the Ministry of the Environment, were used to evaluate the achievement of the management objectives of SNP. Projects included a land-use and vegetative cover analysis of the western zone around the Guamote Macas Highway (Fundación Natura, 2004) and a baseline study to obtain hydrological and biological information on the microwatersheds of the Osogoche in order to develop a simple monitoring method for local communities to apply. The biodiversity health assessment was based on information from monitoring programmes developed in 2006 to collect information on key species of fauna and flora, especially the threatened spectacled bear and tapir, and on tourist activities, primarily in the high zone where visitation is greatest (i.e. the volcanoes of Sangay and Altar).

Impacts

As well as developing management, monitoring and assessment initiatives in Sangay, work on management effectiveness resulted in a range of additional benefits for the park, particularly relating to its World Heritage status.

World Heritage Reporting

The lack of basic information on SNP identified in the initial assessment highlighted the problems faced in reporting the status of the site to the World Heritage Centre. It was noted in the Second EoH Assessment Report that the UNESCO Periodic Report for Sangay was completed with little baseline information and that future reporting will thus be greatly assisted by the development of this report. The report on management effectiveness also provided IUCN with data on the status of the park during Reactive Monitoring (see box).

Stories from the field: Providing accurate baseline data for World Heritage reporting

At the time of its inscription as a World Heritage site in 1983, the Sangay National Park (SNP) was experiencing minimum human intervention, and no significant threats to its conservation had been identified. However, in 1992 Sangay was added to the list of World Heritage in Danger, mainly due to concern over impacts from the construction of the Guamote-Macas Road which crosses a corner of the World Heritage site.

The development of detailed EoH assessment reports aided the implementation of recommendations made by the UNESCO and IUCN missions to SNP. The revised

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initial assessment prepared in 2005 was a key input to the joint UNESCO-IUCN mission reviewing the status of the site on the List of World Heritage in Danger. One of the members of this mission who had conducted a number of such reviews for World Heritage in Danger sites indicated that the EoH report provided a clear and comprehensive picture of park management strengths and weaknesses, and was well-regarded by mission members. This review mission later led to the removal of Sangay National Park from the List of World Heritage in Danger at the World Heritage Committee meeting in 2005.

Management planning

The initial assessment highlighted the need to significantly revise the management plan to take account of a broader suite of values, management objectives and threats. Various planning documents have been developed in order to update the park management plan. First, it was necessary to identify the management objectives that serve as focal points for activities in the plan. Once these were identified, the planning process began to create the park's administrative plan which was then completed by a financial plan. It is still necessary to develop a new park planning tool as the current administrative plan only covers the period 2005–07. Inputs from the second management effectiveness evaluation will be used to guide the development of the new plan in 2008. The management planning process developed in Sangay through the EoH project has been adopted by other protected areas in Ecuador as a model for planning.

Impacts beyond the park

The development of a management effectiveness evaluation framework for SNP has led the Ministry of Environment and other actors to indicate their intention to expand this analysis to all protected areas in the country. Advances in this park and others will help Ecuador meet its obligations agreed at the Convention on Biological Diversity's 7th Conference of Parties as well as the recommendations resulting from the World Parks Congress in Durban with respect to national efforts to evaluate protected area management effectiveness.

References and sources

Bajaña, F., Rivas, J., Sánchez, D. and Suárez, L. 2002. *Initial Evaluation Report of Sangay National Park as a World Heritage Site.* Ministry of the Environment, Fundación Natura, EcoCiencia and IUCN-South America. Quito, Ecuador.

Cifuentes, M, Izurieta, A. and de Faria, H. 2000. *Measuring protected area management effectiveness,* WWF, GTZ and IUCN, Tacuarembo, Costa Rica.

Courrau, J. 2002. *Internal EoH report: EoH Sangay Progress Review Report,* EoH project, University of Queensland, Australia.

de Faria, H. 1993. *Elaboración de un Procedimiento para medir la efectividad de manejo de áreas silvestres protegidas y su aplicación en dos áreas protegidas de Costa Rica.* Tesis Magister Scientiae. CATIE, Turrialba, Costa Rica, 91p.

Fundación Natura. 2004. *Uso del suelo y cobertura vegetal 1:10000 de la vertiente oriental de la carretera Guamote Macas, en zona comprendida entre la laguna Negra y la población de Nueve de Octubre, Provincia de Morona Santiago.* Estudio realizado por Segarra, P., Espíndola, F., Almeida, A., Arias, A., Ministerio del Ambiente, Fundación Natura, Corporación EcoPar, Quito, Ecuador.

Ministry of the Environment .2004. *Objetos focales de manejo del Parque Nacional Sangay. Proyecto Mejorando Nuestra Herencia:* Ministerio del Ambiente, Fundación Natura, EcoCiencia y UICN-Sur. Preparado por: Bajaña, F. And Rivas, J. (Fundación Natura). Quito, Ecuador.

Ministry of the Environment .2007. *Second Report: Assessment on Management Effectiveness of Sangay National Park as A World Heritage Site.* Improving our Heritage Project: Ministry of the Environment, Natura Foundation, EcoCiencia, and IUCN-South. Quito, Ecuador.

Rivas, J. 2002. Internal EoH report: Experience of undertaking management effectiveness monitoring and reporting in Sangay National Park (Ecuador) and the role of the EoH project, experience to date; Proyecto Sangay, Fundacion Natura, Quito, Ecuador.

Bwindi Impenetrable National Park, Uganda

Park profile

Bwindi Impenetrable National Park (BINP) covers 33,092 ha in southwest Uganda within the Albertine Rift ecological zone. The park is rugged and mountainous; more than half the park rises over 2000 m. The park's rare afromontane vegetation provides one of the richest habitats in East Africa for birds, butterflies (over 300 species), trees and mammals; the latter includes chimpanzees and half the world's remaining mountain gorilla (*Gorilla beringei beringei*) population. Sectors of the forest have been protected since the 1930s. The National Park was gazetted in 1991 and inscribed on the World Heritage list in 1994 as a site of outstanding universal value for biological diversity and conservation of threatened species (criterion x) and as an area of exceptional natural beauty (criterion vii). BINP is not a pristine system and much of the forest has been disturbed by logging and other activities. Over 100,000 people live in the areas immediately surrounding the park at a density of over 300 people/km². The edges of the park are generally marked by abrupt boundaries and change into farmland. The steepness of the landscape makes cleared and disturbed areas very prone to erosion.

BINP is managed by the Uganda Wildlife Authority (UWA) with the prime purpose of conserving the montane forests and their associated wildlife populations, particularly the gorillas. All other functions, including tourism – which focuses almost entirely on gorilla watching – are secondary. Tourism, however, provides a major source of income for BINP and UWA, and 20% of the park's revenue from entrance fees is paid to the district's local governments within which the park occurs as a contribution towards meeting the basic social and economic needs of the local people. The park is the site of one of the first conservation trust funds in Africa, established to both support park management and local community development. The Mgahinga and Bwindi Impenetrable Forest Conservation Trust (MBIFCT) was established in the mid-1990s with a grant of US$4 million, which had grown to US$7 million by 1996. Local communities have a significant say in how the income from the MBIFCT is distributed and many community projects such as schools and health centres have been supported.

Park management

Bwindi Impenetrable National Park (BINP) is managed by the Uganda Wildlife Authority (UWA) primarily: 'To safeguard the biodiversity and integrity of the physical and ecological processes of BINP in perpetuity for health,

Bwindi Impenetrable National Park, Uganda.

welfare, enjoyment and inspiration of the present and future generation'.

Park management is based around key activities which include:
- *Research and monitoring programmes:* aimed at ensuring gorilla and other animal welfare, ecosystem health (e.g. control of fires), resource use by communities and mitigating impacts of crop-raiding by wildlife.
- *Community and development programmes:* through achieving the long-term conservation goal of the park by addressing community support and participation in the management of the park and its resources through four separate programmes. Programmes include crop raiding control, revenue sharing (20% of the park's revenue from entrance fees is directed towards meeting the basic social and economic needs of the local people), conservation education, and a multiple-use programme (20% of the park area has been reserved for sustainable resource use).
- *Tourism development programme:* aimed at developing and implementing controlled gorilla tourism and diversifying tourism activities to reduce dependence on gorillas and increase revenue. Activities include a network of tourist trails for eco-tourism in the park's tourism zones, plus other infrastructure to address staff and visitor needs; and improving publicity and marketing of tourism attractions in BINP. Gorilla-tracking currently accounts for 99% of BINP revenues.
- *Protection and resource management:* through achieving protection through law enforcement.

UWA's major partners in BINP are the local community and district authorities, the Rwanda and Congo governments (the park borders the Congo and is close to Rwanda, and both countries have gorilla populations), and NGOs including the Mgahinga and Bwindi Impenetrable Forest Conservation Trust (MBIFCT), CARE, and the Institute of Tropical Forest Conservation (ITFC).

Enhancing our Heritage process

Following a field visit and attendance at a five-day workshop, in July 2001, introducing the EoH project to representatives from all the project sites in Africa, UWA

identified a site implementation team comprising: John Makombo, at that time Chief Warden of BINP, Alastair McNeilage, Director of ITFC and Ghad Mugiri, then BINP Warden responsible for Research and Monitoring and later BINP Chief Warden, with additional assistance from the UWA Monitoring and Research Coordinator and the Planning and Environment Impact Assessment Coordinator. It was agreed that the major site partner would be ITFC, but that other important partners involved in implementation would include CARE, MBIFCT, IGCP, the Community Protected Area Institution (CPI) representing neighbouring communities, Community Tourism representatives, institutions of higher learning and conservationists.

In August 2001, a workshop was held in Bwindi with all relevant park staff to introduce the project and the tools in the EoH Toolkit. A second workshop was held in September 2001, attended mainly by NGOs working in and around Bwindi (i.e. ITFC, CARE and members of the International Gorilla Conservation Project), to draft an assessment.

An Initial Assessment Report on Management Effectiveness in BINP was published in August 2002 (Uganda Wildlife Authority, 2002) following a stakeholder workshop to discuss the draft assessment. Prior to this workshop, all park staff underwent a three-month refresher course, between September 2001 and July 2002, on basic natural resource conservation principles and ethics including monitoring and evaluation. In the same period, the UWA Management information System (MIST) developed for purposes of monitoring management effectiveness, among others, was installed in Bwindi and staff trained in its use and maintenance.

Following discussions of the report with Moses Mapesa (then Director of Field Operations for UWA and currently UWA Director) in January 2003, a second assessment was carried in May 2003 (Uganda Wildlife Authority, 2003). This second assessment emphasized the involvement of local partners in the process and a workshop was convened with local communities, ensuring input into the assessment itself and clarity on how the results of the evaluation would be used by UWA.

The Initial Assessment documented the effort put into restructuring the management of BINP in recent years, that is, a well-trained upper level of management, monitoring through the MIST system, and good community relations. The assessment did, however, reveal some areas which needed improvement to facilitate the better management of BINP; including the need to address inadequate information on the biological resources and dynamics of the park, inadequate levels of staffing and infrastructure, and low levels of staff training at less senior levels. The report concluded that *'with or without UNESCO/the EoH project we need to evaluate ourselves'* and provided some recommended actions for the coming years.
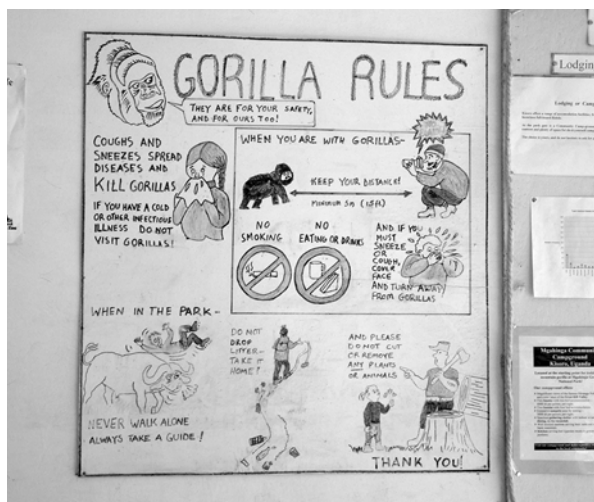
Gorilla tourism is the major funding source for Bwindi Impenetrable National Park, Uganda.

In the subsequent period, UWA staff initiated development of an evaluation tool for assessing the adequacy of staff numbers, staff training and park infrastructure and equipment, which has been integrated within the EoH toolkit. The structure of the EoH management effectiveness evaluation system and the results of assessments have been used to help structure discussion at UWA annual meetings of Chief Wardens.

The final assessment workshop took place in 2007, with a new Chief Warden, Asa Kule, in charge of the park, but with the involvement of the previous Chief Warden, Ghad Mugiri. The involvement of staff with previous experience in the assessments in Bwindi emphasized the need for continued training and capacity-building amongst staff to equip them with the knowledge and skills needed to conduct an evaluation. It cannot be assumed that a toolkit alone will be sufficient to enable new staff to apply the methodology.

Implementation

A key component of the EoH project was to support enhanced management of the sites based on needs identified through the management effectiveness assessment process. An assessment with no follow-up action is of limited use to site managers and their willingness to spend time and resources on the assessment process will quickly diminish. The examples below illustrate how an assessment can be used to identify specific actions that will lead to improvements in management.

Gorilla-based tourism provides a major source of income for Bwindi, UWA and the local population. However, the park management and Bwindi-based ITFC recognise the need for knowledge and assessment of a far wider range of species and interactions. The EoH project has thus provided funds to help update vegetation maps, assess endemic species – especially lesser known plants and animals, research the sustainability of local non-timber forest

product harvesting and assess systems that monitor such harvesting, and evaluate methods for minimizing crop-raiding by wild animals, including the research and testing of new methods and deterrents.

One of the issues highlighted in the initial assessment was that information on use of non-timber forest products (NTFP) was scant and required further research. In response, eight community consultation meetings were convened by UWA and ITFC staff, resulting in recommendations for revision of the monitoring programme, and the updating of community memorandums of understanding (MoUs) on resource use in the park. Four groups of indigenous people (the Batwa) were involved in this review. This was a major step as the Batwa had not previously taken part in the programme, and discussions revealed that the resources they sought access to differed from other community groups, including wild yams, wild honey and medicinal plants. The meetings confirmed that demand for forest resources remains high and continued monitoring is important. ITFC is thus developing monitoring programmes for three plant species *(Ocotea usambarensis, Rytigynia kigeziensis and Loeseneriella apocynoides)* that are used for medicine and craft materials. Monitoring (permanent plots monitored on an annual basis) of these three plants is now ongoing with the establishment of sustainable harvest levels. (Bitariho et al., 2006). New plant resources *(Dioscorea minutiflora, Dioscorea astericus and Prunus africana)* are also now being monitored and harvestable quotas/quantities developed. Eleven draft MoUs have been completed which incorporate the needs of the indigenous people.

Another equally important issue relating directly to the management of the park and the relationship between the park and local communities highlighted in the first assessments was the need to deal more effectively with crop-raiding by animals, including elephants and gorillas, from the park. The EoH project helped finance field trials on deterrents and study tours to review practices elsewhere in Africa. Activities were carried out in collaboration with ITFC and CARE to identify potential new problem-animal control strategies, both in the context of the management of the new Nkuringo buffer zone, and other possible sites around Bwindi. In 2002–03, ITFC carried out initial site visits in Nkuringo regarding the development of a monitoring system for crop-raiding levels, to establish a baseline and allow the effectiveness of new interventions to be assessed over time. Live fences as a deterrent to problem animals moved from being tested as a pilot project to implementation by UWA. Some 33 km of the Mauritius thorn fence were established in Kanungu area, and further planting was planned. Dealing with crop-raiding by elephants and gorillas, however, remained a challenge. So in phase 3 of the project, EoH funded a study tour to Kenya, where a red pepper solution has been used as an effective deterrent. Following the study tour, four trial plots of red chilli were established in the southern part of the park (Rushaga) to deter crop-raiding. By 2007, the chilli had matured and was proving effective in controlling elephants. Roll-out of

the red chilli has now started and will be ongoing beyond the project life; plans are also underway to use the same strategy in Ruhija for control of elephants. The establishment of *Artemisia* as a way of controlling problem gorillas is reported to be successful in Nkuringo with over twenty farmers having planted the crop. Continued establishment of Mauritius hedge is being undertaken in Nkuringo to control gorilla movements.

At the review of the first stage of the EoH project at the World Parks Congress in Durban (attended by representatives of all sites involved in the project) a consistent request made by all sites was for greater linkages between regional World Heritage sites. The EoH project thus funded two study tours in East Africa with staff from BINP and UWA visiting Serengeti in 2006, and Serengeti staff visiting Bwindi in 2007. The focus of the 2006 trip was for UWA to review in particular the Serengeti Visitor Centre, given the plans to develop a visitor centre at Bwindi. The trip resulted in several important recommendations for the planning of the visitor centre (see box).

> ### Recommendations/lessons learnt from study tour in relation to BNIP visitor centre
>
> • A monitoring and evaluation plan for the Bwindi visitor centre needs establishing from the onset.
> • Visitor centre facilities should be planned to take care of future visitor projection based on peak seasons.
> • Design of the visitor centre design needs to take into account the needs of the disabled, e.g. adequate toilet facilities and wheelchair access.
> • Electronic gorilla and elephant sounds could be installed at the visitor centre.
> • A maintenance plan for the visitor centre should be in place from the onset.
> • The planning and implementation process for the visitor centre requires a participatory approach.
> • Interpretive materials should be developed taking into account the major nationalities that visit BINP. Also, relevant park staff should be trained in working with different languages.
> • Accommodation and other facilities within Nkwenda and Buhoma should be reviewed and maintain the same good standards as the planned visitor centre.
> • All tourism activities within the park should be packaged under one payment fee to avoid the inconvenience of multiple charges.

In 1996, the Government of Uganda developed a new wildlife policy, which emphasizes the need for business-oriented management of wildlife resources and estates. UWA has since formulated a corporate strategic plan. All ten national parks now have management plans, as do five of the twelve wildlife reserves. Since 2001, annual operational plans have been prepared and implemented for all

protected areas. However, at present no business plans have been finalized due to a lack of institutional capacity for this type of planning. UWA hired a consultant to undertake business planning at a corporate level, but there was no process in place to develop business plans for individual national parks or specific projects, and no process to build capacity in business planning across the organization. As part of the UNESCO/Shell Business Skill Plan project (see Appendix 1), agreement was reached to assist UWA managers in completing a three-year business plan for the Bwindi-Mgahinga Conservation Area (BMCA). Following the first training visit, a draft covering Company Analysis, Market Analysis, Marketing Plan and Risk Analysis sections had been prepared by UWA, but final feedback from Shell had yet to be incorporated.

Vegetation mapping: following certain difficulties, 0.5 m resolution aerial photographs were obtained for the whole park; these which are now being digitized on the basis of structural classification, and stratified by altitude, providing baseline data. The intent is to use satellite imagery in the future to measure vegetation changes against this baseline. ITFC carried out an initial analysis of the photographs to prepare digital orthophotos to facilitate preparation of the vegetation map. A habitat classification system has also been developed, along with detailed methods for ground-truthing fieldwork.

Results and impacts

The final assessment report for the site includes a comparison with the initial assessment report as well as identifying remaining gaps and challenges. This provides an opportunity to assess both how site condition and site management have changed over the intervening period, and also where the EoH process has been able to make a contribution. Key points are summarized below in relation to some of the EoH assessment tools.

• Identifying site values and management objectives
Tool 1 provides a mechanism for capturing and updating information as it becomes available. For Bwindi, information is still lacking on certain species' population sizes, although the EoH project has contributed to continuing work on rapid ecological assessment and survey. Additional information is also required on the value of the forest as a carbon sink, for water catchment, and as a source of non-timber forest products. This process of updating knowledge is enhanced by the involvement of researchers such as ITFC in the management effectiveness assessment process. Linking management objectives to identified site values helps ensure conservation strategies are focused on effectively contributing to maintaining these values.

• Identifying threats
More threats were identified in the final assessment in 2007 than in the initial 2002 assessment, but this is attributed to enhanced involvement of stakeholders, leading to recognition of threats that were not previously apparent to

managers, as well as improvement in the EoH toolkit assessment tool, providing better guidance for identification of existing and potential threats. The assessment recognized that certain threats, such as crop-raiding and poaching are difficult to eradicate, but that analysis of threats can help in developing strategies to reduce their impact and spread.

• Relationships with stakeholders

UWA has placed a lot of emphasis on working with communities and improving relationships with stakeholders, and the results of this work are reflected in the final assessment. Improvements in working relations with local governments and communities were highlighted, as well as an increase in the number of stakeholders involved in the site. The utility of the assessment tool in developing a clear understanding of the interests and issues of stakeholder groups was noted.

• Planning and site design assessments

The improved information that came from enhanced contribution of stakeholders through a more participatory assessment process was noted in relation to both the planning and design assessments.

• Inputs assessment

The final assessment notes that shortfalls in staff capacity, training, equipment and infrastructure needs remain a problem at the site. Staff capacity and training gaps are exacerbated by staff transfers and resignations, highlighting the need for continued training. BINP is relatively well funded (85% of estimated needs), deriving a large part of its revenue from gorilla tourism. Indeed the park supports management of many other sites in Uganda that do not have the same capacity to raise funds through tourism.

• Outputs assessment

BINP is progressing well with the implementation of both its general management plan and annual work programmes. More than 85% of the actions in the management plan have been completed or are showing substantial progress. The MIST monitoring and information system provides detailed information that can be used to assess many aspects of the management programme such as patrol coverage, detection of illegal activities, as well as natural resource information.

• Outcomes assessment

Outcome monitoring reveals a generally positive picture of conservation outcomes at the site. Gorilla populations increased from 320 in 2002 to 340 in 2006. During the project, BINP were able to more specifically define targets for indicators, although some work remains to be done as outlined above. Ten of the thirteen indicators were assessed as being in good condition with nine showing a positive trend. Concern was expressed about the condition of two indicators where the trend in condition is declining. Information was lacking on one indicator.

Stories from the field: A manager's perspective

Moses Mapesa, Director, Uganda Wildlife Authority, gave the following evaluation of the overall EoH process. He noted that the overall process provided an opportunity for in-house evaluation and evaluation by partners (outsiders) at a relatively low monetary cost. The process of assessment specifically highlighted the following:

* *In-house staff has tremendous potential to take on various roles at relatively low costs. They are able to comprehend the system of assessment and undertake it once given a few tips.*

* *The process provides an opportunity to review management values, objectives, approaches and targets, and allows for a re-focusing of efforts on critical areas.*

* *The process can also be used for more positive evaluations of individual staff efforts. Many times, staff are scared of evaluations, and will even tell lies for fear of job security. But when they undertake the evaluation themselves this leads to more honest responses, particularly when they know that it will not result in victimization.*

* *The partners, especially community members and leaders who have often been very critical of management (and sometimes antagonistic) were very supportive and objective during the assessment. This was because the process provided them with an opportunity to gain information on management and interventions, including constraints and challenges and they are now able to give their assessment from an informed standpoint.*

* *Fortunately for Bwindi, the partners had already been involved in the planning process. The evaluation therefore provided a participatory feedback mechanism, moreover with field visits as opposed to written reports, which some officers lack the time to study.*

* *Compared to an external evaluation by a team of experts, this process is affordable and practical. In any case, external evaluation reports are sometimes rejected or explained away by management, while good recommendations are not taken on board. On the other hand, external evaluations still rely on the same people (staff and partners) who compile a report to their own credit, which can cause staff to feel cheated.*

* *The process brings together all stakeholders involved in the management of the site and allows for a second opportunity following joint annual operations planning to review who has done what, ensure complementarity and avoid duplication.*

References and sources

Bitariho, R., McNeilage, A., Babaasa, D. and Barigyira, R. 2006. Plant harvest impacts and sustainability in Bwindi Impenetrable National Park, S.W. Uganda. *African Journal of Ecology,* 44 (1): 14–21.

Uganda Wildlife Authority. 2002. *Initial Assessment Report for Management Effectiveness at Bwindi Impenetrable National Park.* Uganda Wildlife Authority unpublished report available at http://whc.unesco.org/en/eoh.

Uganda Wildlife Authority. 2007. *Enhancing our Heritage Final Assessment: Bwindi Impenetrable National Park.* Uganda Wildlife Authority unpublished report available at http://whc.unesco.org/en/eoh.

Applying the *Enhancing our Heritage Toolkit* to Cultural World Heritage Sites

Ensuring the artistic and architectural integrity of very old structures is a constant challenge for many cultural World Heritage sites such as in Fatehpur Sikri, India.

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Applying the *Enhancing our Heritage Toolkit* to Cultural World Heritage Sites
Carolina Castellanos

Current conditions at cultural sites

Cultural heritage is vast and varied and reflects how societies have adapted to different natural settings through time. Diversity is also reflected in characteristic landscapes and expressed in the intangible heritage resulting from syncretism in beliefs, rituals, languages, music and dance that give life to material referents.

This diversity in styles, materials, architecture, cultural expressions and so on, entails significant challenges both in understanding and addressing deterioration, but also in terms of theoretical approaches for the conservation of their distinct values. What is defined as heritage today has evolved in meaning, depth and extent. In recent decades there has been a desire to move away from a 'monumental' and static view towards a more comprehensive and diversified perception of the wealth of human cultures, embodied in such themes as twentieth-century architecture, modes of occupation of land and space, industrial technology, subsistence strategies, water management, routes for people and goods, and traditional settlements and their environments.

Consequently, conserving and managing cultural heritage is a challenging task. Generally speaking, heritage professionals are faced with issues that can be categorized, perhaps in simplistic terms, in two broad areas: those related to the impact of natural processes on the material fabric, including climate change, and those related to the social context, including aspects such as management capabilities, resources, governance, participatory approaches and integration of social and economic values, amongst others. Some of these can be considered worldwide trends, but these are also reflective of local situations that are closely related and interdependent. In terms of natural factors, there are diverse interacting environmental conditions, which vary in each heritage site and its setting, which generate physical and chemical mechanisms that lead to the decay of materials.

The crowds at Kiyomizu-dera, part of the Ancient Kyoto World Heritage Site in Japan.

© Sue Stolton

To date, there are still significant gaps in knowledge regarding deterioration phenomena, particularly on the impacts of climate change. And there remain important deficiencies in implementing comprehensive plans at heritage places: interventions tend to be reactive and lacking systematic documentation and analysis, and there is limited monitoring, so data is difficult to assess without comparative tools. Most conservation assessments continue to be too general and do not allow for a strategic, sustained, long-term action plan that comprehensively responds and adapts to the complexity of factors that interact at heritage sites.

Besides these factors, other significant issues that affect the rate and extent of decay evidenced at cultural sites include land tenure issues, uncontrolled urban and rural expansion, lack of social appropriation of heritage, lack of recognition of derived benefits of heritage conservation, and looting and vandalism, amongst others. Funding is also a problem.

Although most countries have adequate policies and legislation that provide a framework for heritage decisions, means are still inadequate to effectively implement them. Inter-institutional collaboration, cooperation and communication are limited among agencies that have mandates impacting cultural sites.

All these issues have hindered the formulation of a comprehensive approach toward the conservation of World Heritage sites, which reconciles the needs and expectations of diverse interest groups and fosters a participatory approach to the conservation and protection of sites. Given the political situation and the limited resources in most regions of the world, it is necessary to 'sensitize' decision-makers to the need for conservation and management policies that would lend support to mid-level managers to make changes in policies and practices.

Brief overview of Enhancing our Heritage key aims and approaches

Monitoring and evaluation are increasingly viewed as critical components for the management of heritage places. The assessment of management effectiveness has three major applications: adaptive management – to improve performance within protected areas; accountability – to assist reporting by site and system managers; and improved project planning – to review approaches and apply lessons learned.

The Enhancing our Heritage (EoH) project, sought to improve the management of natural World Heritage sites through the development of better monitoring and reporting systems, and through using the application of the results of these assessments to enhance site management.

Table 5.1: **Summary of critical factors affecting heritage conservation and management**	
Natural processes	• Climate change • Environmental conditions: temperature, humidity, winds, etc.
Management context	• Inadequate capacity and skills • Limited professional and technical exchange • Deficient methodologies, criteria and guidelines • Inappropriate conservation interventions/or use of incompatible materials • Inadequate buffer zone management • Negligence and abandonment of heritage sites • Partial interdisciplinary and participatory methodologies and approach • Absence of planning, monitoring and evaluation • Insufficient risk preparedness • Inadequate values and significance assessment.
Social context	• Land tenure • Illegal use of heritage sites • Uncontrolled urban and rural expansion • Social degradation and poverty, limited social appropriation of heritage • Inadequate attention to indigenous rights • Looting • Vandalism • Uncontrolled tourism.
Governance	• Outdated legislation and ineffective implementation of policies and legislation • Inadequate institutional arrangements; centralization and rigid structures for decision-making • Discontinuity in entities and lack of institutional memory • Insufficient cooperation and communication amongst government agencies; overlap in responsibilities and mandates • Limited synergies and strategic alliances amongst heritage entities • Insufficient territorial and systems planning; heritage not integrated in other levels of planning • Partial awareness regarding benefits of heritage conservation and role in poverty alleviation, quality of life and social equity.

Based upon the six elements outlined in IUCN's World Commission on Protected Areas (WCPA) Framework for Assessing Management Effectiveness (context, planning, inputs, processes, outputs and outcomes) the project developed an assessment toolkit (see previous chapters) suitable for World Heritage sites, after testing in nine pilot sites across three continents.

Monitoring management effectiveness for cultural sites and the benefits of the EoH approach

As mentioned above, conditions at cultural heritage places are deteriorating in many sites across the world; planning is minimal and operational and consistent management systems are not in place. There is a pressing need for innovative solutions in a field plagued by a number of problems, including frequent changes in management structures, funding constraints and the lack of a comprehensive approach toward the management and conservation of sites. These include the promotion of participatory processes and the creation of non-governmental organizations that support heritage endeavours which can constitute viable alternatives for the long-term conservation of sites. Communities and other organized social groups frequently express their interest in sites; these need to be taken into account to foster an active involvement in diverse conservation tasks. Also, the benefits of heritage

need to be explored, in order not only to deter current practices that impact sites, but also to have a positive impact on the recognition of site values and enhance human development.

However, without a precise assessment method, it is difficult to illustrate the success of different actions. If cultural sites are considered as part of a system, achievements need to be illustrated or evaluated at various levels (municipal, state, national, regional, global), particularly in regard to benefits provided through effective and appropriate conservation and management practices. There are many new instruments and methodologies available, and while these instruments are not readily applicable to World Heritage, they deserve to be considered and should prove helpful to evaluating the existing sites and to developing a coherent approach to cultural heritage management.

The EoH approach could be highly beneficial for cultural sites, in that it is based upon a flexible framework where different tools can be applied according to the specific component to be assessed. It allows the monitoring and evaluation of different criteria, but it also enables the identification of interdependent factors - an important consideration given the complex issues related to the conservation and management of heritage sites. Another important consideration is that values and significance are the driving forces behind decision-making in cultural

heritage conservation and management. But these values are not static; they are relative to time, space and the different social groups that participate in ascribing them. The variety of tools that can be utilized within the framework enables us to gauge whether significance is effectively being conserved and promoted.

Management decisions and interventions will affect how heritage is perceived, understood and interpreted, and also how it will be transmitted to future generations. Constant changes in social conditions and their impact on cultural processes and communities influence and determine the role of heritage conservation in the social agenda. The feasibility and success of heritage conservation in the future will rest largely on considering approaches that invest in natural, human and social capitals - approaches which understand the relationship between values and society, the implications and challenges of employing a value-driven process, and the decisions that impact cultural systems, on the stronger examination of why conserve heritage and for whom, but, most importantly, on the ability to anticipate and manage change.

Can the EoH methodology be applied to cultural heritage sites?

The current trend is to develop one approach to World Heritage sites rather than developing separate cultural and natural site systems. However, the idea of adapting lessons learnt and methodological approaches from the natural heritage field to cultural heritage is not unique.

The EoH approach can be adapted to cultural heritage by understanding how the six elements of the assessment framework are similar to approaches already used in the culture field. The following figure tries to identify similarities between cultural heritage planning and the IUCN WCPA Management Effectiveness Framework.

Evidently, the elements and specific criteria for assessment would be different, as well as the indicators, but the overall framework is already familiar to cultural heritage management. Notwithstanding, there would be some challenges as the match between components might be more precise for cultural sites managed as a single entity, but would be more complex in sites with multiple management authorities. It is worth noting that conservation

- Value assessment
- Conditions assessment: physical fabric and context
- Identification of stakeholders

- Was significance preserved and promoted?
- Is changed being managed?

Participatory, value driven conservation management planning process

Context: status and threats
Where are we now?

Outcome
What did we achieve?

Planning
Where do we want to be and how will we get there?

Evaluation

Output
What did we do and what products or services were produced?

Inputs
What do we need?

Management process
How do we go about it?

- Conservation of heritage places
- Visitation well managed and informed
- Contribution to human development
- Enhancement of the quality of life, etc

Collaborative structures amongst different levels of implementation
Financial strategies

- Implementation of management plan
- Operating a management system

Figure 5.1: Similarities between cultural heritage planning and the WCPA Framework.

management planning for cultural sites is still not supported by many policy- and decision-makers responsible for heritage, who still maintain limited concepts of what 'managing' a site is about, resulting in lack of standard policies or institutional mandates for participatory planning. Many existing cultural management plans have never been implemented because of deficient planning approaches, lack of broad consultancy or inadequate strategies for accomplishing objectives, including financing, training and human development. The fact remains that many cultural heritage sites are 'managed' on a daily basis without a plan (as an effective tool for decision-making and subsequent analysis). However, the EoH toolkit could be easily adapted to suit a multilayered management system, by providing a diverse set of tools to be used by management authorities across different responsibility levels. The EoH approach can help sites understand the need for a holistic and participatory system, particularly when issues related to the efficacy and adequacy of current practices are clearly pinpointed.

Similarly, there are challenges regarding what to actually assess in cultural sites. Conservation of heritage sites is a value-driven process, but these values are not only imbedded in the physical fabric of a place, but also in cultural systems and intangible characteristics that do not lend themselves to easy evaluation.

Another important issue is that cultural heritage management does not currently operate under a consistent and standardized approach or framework, and theory and research work is still needed to develop models and frameworks that can easily be tailored to a variety of conditions. The WCPA Framework and the tools developed by the EoH project could be an important starting point. By implementing these under a variety of conditions, lessons can be learned and the critical and comparative analysis of results can lead to the identification of best practices.

Perhaps the biggest challenge in utilizing the approach consists in the lack of precise indicators for monitoring and evaluation in the culture field. Considerable research needs to be carried out in this arena as, to date, most sites have no systematic condition recording, and have yet to undertake comprehensive analyses of the complex interactions between factors so as to develop holistic approaches to conservation with strategic, sustained, long-term responses. Existing practices are not standardized and technical skills are insufficient at most sites, although some efforts have been made to develop regional glossaries in specific fields (e.g. earthen architecture) and to promote professional exchanges to enhance site practices. In cultural sites, to date, there is little agreement on standard indicators, and monitoring is rarely undertaken on a methodical regular basis. In most cases, monitoring is only considered for environmental conditions or as an administrative procedure. The absence of clearly-defined indicators and monitoring systems hinders systematic or objective conservation assessments, the evaluation of impacts on values or any changes in authenticity

and integrity. Similarly, there is limited monitoring or systematic condition recording carried out at most sites, so precise rates and levels of deterioration are difficult to assess without comparative tools. However, establishing indicators can present a paradox, as these can easily become mere checklists that do not take into account the complexity of interrelated factors and the complex nature of cultural systems.

Therefore attitudes need to change towards planning and monitoring, since both are now considered as means unto themselves - an 'end product' as opposed to tools to implement management systems and to evaluate their efficacy and adequacy.

Implementation of management plans and the subsequent assessment are critical to continue building on existing knowledge to advance methodologies and criteria, not only for planning, but also for actual implementation, in which management of heritage sites considers and balances conservation with use and distribution of benefits. The sustainability of plans and their implementation entails the ability to anticipate and manage not only change, but also the large social participation and involvement in heritage endeavours.

Link between the EoH approach and other World Heritage processes

Current reporting needs for World Heritage properties are mainly related to periodic reporting, reactive monitoring and state of conservation reports. This becomes a burdensome task when site managers, who have no management systems in place or monitoring and evaluation results, are asked to provide information about outputs and outcomes. For more effective practices, EoH could make available a series of readily adaptable tools for cultural sites. However, none of these will be of any use until the values and significance of World Heritage cultural sites have been precisely defined, including the qualities, features and associational elements that are to be evaluated and monitored. Without this statement of Outstanding Universal Value, it is difficult to establish the integrity of the sites and the degree to which conditions have affected their significance, and consequently define value-driven policies for interventions for the conservation of relationships between the sites and their setting, and for the promotion of social values ascribed by communities and local populations.

Consequently, values and physical attributes are an essential tool to gauge change. These should drive management decisions and provide precise means for monitoring them. Although indicators could be more consistent across different areas of the management cycles, each cultural site will have specific features to be monitored against.

The EoH approach could provide the basis on which to engage in replicable test cases for consistent evaluation of

the results of implementation and revisions of a proposed framework. Tools can easily be tailored to fit the size of the site, the specific typologies or even a multilayered management system.

Monitoring is essential to all World Heritage processes, but it should not be considered as a bureaucratic, once-in-a-lifetime task to comply with a requirement. Cultural site managers and decision-makers need to embrace it as a critical tool to provide information and enhance the conservation and management of heritage sites. It is also a tool that helps facilitate compliance with reporting processes and avoids them becoming burdensome, time- and resource-consuming activities. It should also be conceived as the tool that allows management to change, to promote a proactive rather than reactive attitude towards heritage conservation and management, and which can effectively garner support for potential donors by showing a coherent and credible approach.

Although there will never be a single standard method, EoH is a flexible framework, easily adaptable and responsive to diverse typologies of cultural sites, management contexts, etc. Consequently, the feasibility of implementing an extended project to cultural heritage monitoring should be explored.

Project to Process: the Future

Serengeti National Park, UR of Tanzania.

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Now what?

If you have read the whole toolkit through in sequence you will by now have made your way through what probably seems a bewildering array of tools, diagrams, case studies and advice. If you are a World Heritage site manager, or indeed someone working for any other kind of protected area, we hope that some or all of the tools might be useful for developing your own monitoring system.

These issues are complex and we would recommend that, wherever possible, they are introduced with some specific capacity-building support such as a workshop; all the sites described in the case studies took part in specific training workshops before starting the process of designing a monitoring system. However, for places where there are limited funds or opportunity to do this, a number of other options are available.

There is some self support material available, in addition to this technical document. All the worksheets are available electronically (and we would strongly advise using them in this form if possible); these can be downloaded from the UNESCO web site (http://whc.unesco.org/en/eoh and http://whc.unesco.org/fr/eoh) and are also on a CD available from UNESCO World Heritage Centre, along with other papers and explanatory material, and back-up PowerPoint presentations that can be used for training. Two additional support tools have also been developed as an offshoot of the project (see Appendix 1 for more details):
* *ParkPlan* is a software package developed at the University of Queensland to facilitate easy monitoring of implementation of a World Heritage site management plan. (It is designed to be suitable for any protected area.)
* The **World Heritage Business Planning Guide** has been developed by the Shell Foundation to help sites build up an effective business structure, based on corporate models but adapted specifically to the needs of protected areas.

There is also a growing body of expertise available within World Heritage sites. Several of the sites who took part in the development phase have said that they would be prepared to act as mentors to others wanting to develop similar systems, through site visits, taking part in workshops or through remote advice. Hopefully this 'in house' expertise will continue to grow and will help to disseminate the ideas.

Monitoring and assessment systems inevitably cost some money (although assessments can be carried out for less than US$15,000) so funds will either have to be allocated from existing budgets or special applications made to governments or donor bodies. In many situations at least some proportion of the work of recording may be possible from volunteers.

Where next?

Good monitoring systems require training, resources and capacity, but these three alone will not guarantee either good assessment or that the assessment will produce anything of value. Many World Heritage monitoring systems are abandoned after a few years, being an easy item to cut whenever budgets are tight or time is short. Yet assessments of the success of World Heritage sites show consistently that an effective monitoring system, coupled with commitment to putting the findings into practice, are important elements of success. During the period of project development we have come to recognize a number of important enabling factors that can help to ensure an assessment system is worth setting up. Some of these seem self-evident; we list them here because many are often not followed in practice.

* **Commitment at senior levels is important:** assessment can be seen as a threatening process in that it often results in a mixture of good and bad news and further work for the site in terms of addressing identified problems or threats. It sometimes seems like the only result is to draw hostile attention to any shortcomings; some protected area assessments have for instance been used by journalists to attack the whole concept of protected areas. Senior management needs to be enthusiastic about the positive benefits that assessment can bring, be committed to the whole process, prepared to handle any political problems and to engage with and support implementation of the results.

* **Capacity and engagement of staff at the site:** similarly, site managers, staff and rangers also need to be enthusiastic. Unless external evaluators are used (which itself brings costs and some problems) then the accuracy and hence the point of the assessment relies to a large extent on the commitment of site staff. Imposing an assessment without winning the support of local managers is likely to prove problematic.

* **Include agency staff and external stakeholders:** all the assessments discussed in this toolkit can involve external stakeholders in their review, including in particular local communities. Again, this needs commitment: local people will often highlight what they think is wrong about a site and assessments can bring hostility to the surface. At the same time, to a large extent the long-term future of natural World Heritage sites or other protected areas depends on building up a supportive environment; seeking and listening to local and other stakeholders is essential to this.

* **A long time period is needed for institutionalization:** developing a monitoring system is not just a case of running a couple of workshops and handing over a manual and some CDs. Good assessment systems need to develop from being seen as an additional, often external, project to being a standard part of everyday man-

agement. This process usually takes at best several years to achieve.

- **Refer to site values, threats and accepted site management:** as stressed throughout, a good monitoring system is based upon and constantly refers back to a clear set of values, management objectives and criteria, which are all well-understood by staff. If such things are not available – for example, if site values have never been clearly articulated (in theory this should be impossible in the case of a World Heritage site) or if there is no viable management plan, then getting these things right should be a higher priority than setting up a monitoring system, which should wait until it can build on a solid management framework. The set of methodologies described here should not be used as a way of short-cutting essential management efforts.

- **Standards for management:** part of the process of establishing a good framework should be the agreement of management standards against which to measure effectiveness. Some of these will be established on a national or even regional basis, and increasingly staff can draw on published codes of practice and standards for conservation management. In other cases, World Heritage staff will have to set standards of their own for aspects unique to the site or its situation.

- **Assessments should be comprehensive:** many natural World Heritage site managers will be ecologists and conservationists, and their instinct will be to look first and maybe even exclusively at biological values in assessing management effectiveness. While these issues are critically important, in most cases they will not be enough and social, cultural and economic issues should also be considered. Today, shifting societal values have placed greater emphasis on the social role of all World Heritage sites and all protected areas, many of which are now expected to play a positive role in poverty alleviation programmes for example. Long-term conservation values are also in many instances connected to cultural or social values, which can either support or hinder conservation. This makes assessment slightly more difficult, if only because it requires a wider range of expertise, but also makes the results more widely applicable.

- **Flexibility of responses is important:** we are not insisting on orthodoxy here; the tools and approaches are proposals and suggestions rather than fixed and unmoveable methodologies. We encourage site staff to think carefully about what information or monitoring systems are available already and to incorporate them rather than reinventing or repeating work, which will simply waste time and money (and frustrate the people involved in existing monitoring systems if their work is seen to be undervalued).

- **Promotion and dissemination:** assessments will generate a lot of interest and promotion needs to be handled with care. Anyone who has been involved will expect, and should be entitled, to see a copy of both the final report and any background documentation. Furthermore, depending on the profile of the site, there may be wider interest from local, national or even international media, from politicians and other stakeholders. At least some of these may not be particularly sympathetic to World Heritage values, for example if World Heritage status is stopping development of some particular commercial enterprise. It is therefore worth preparing a promotion plan before releasing the final report, with associated an press release and people ready to speak to journalists etc. If particular problems have been highlighted, it would be a good idea to evolve a strategy on how these might be addressed before setting them before the public. At the same time, promotion should also take place internally and in particular it is important that staff and others involved in what is often a tedious business of collecting data have a chance to see and understand what this has been feeding into.

- **The process needs to include the response and follow-up to assessment and not just the assessment itself:** finally, but most important of all, assessments that simply sit on a shelf in an office are pointless. The assessment only makes sense if it is followed by a set of responses (if these are shown to be necessary) and a fully implemented plan of action for addressing these. Assessments that go on to improve the efficiency and effectiveness of management are far more likely to be supported and repeated in the future.

Things to consider

There are many additional factors that anyone developing an assessment system needs to include; we identify a few issues that have become obvious during our work.

- **A relatively fast-changing staff in many World Heritage sites:** none of the nine sites involved in the testing of the Enhancing our Heritage approach had the same manager at the end of the seven-year period as they did when we began, and most had also changed the people responsible for monitoring and evaluation. Many protected area agencies swap managers every year or so. There are good reasons for this, but it tends to make the development of new systems more difficult because project staff are constantly engaging with new people and repeating training. As systems become institutionalized this becomes less of a problem, because a new manager will come knowing what to expect in terms of monitoring, but this is far from the norm as yet. It makes the provision of detailed monitoring protocols particularly important so that if one staff member leaves there are sufficient detailed instructions to enable someone else to can carry on monitoring in the same way, so that data are comparable. We are glad to see that in some test countries the approaches are being adopted generally for World Heritage sites or even for protected areas, which will make rapid staff turnover less of a problem.

- **Difficulties in engaging with local people:** monitoring staff need to have clear ideas of how to engage with local stakeholders and how to follow up after assessments. It has proved very difficult to get everyone involved in discussion in many places; for instance, in some situations it has proved hard to get women to the meetings (and perhaps separate meetings may be more appropriate). More fundamentally, managers need to know how to respond to issues that local people bring up. A stakeholder workshop (which costs people time and money to attend) that identifies a lot of problems, which are then ignored, will do little good. Conversely, it may not always be possible to address many of the complaints that arise. There is no magic formula for how to address this issue but it does need to be addressed in every case.

- **Adapt the toolkit for your own circumstances:** again we stress, this is not supposed to be a simple recipe book. Experiment!

Appendices

1. Related Tools

Shell Foundation – UNESCO/WHC Business Planning Toolkit

ParkPlan: Management Planning Implementation Database

2. Glossary

Introduction

One of the overall objectives of the Enhancing our Heritage project was, wherever possible, to develop generic tools, training materials and guidance for World Heritage managers, to help them manage more effectively and efficiently. Although the development of the toolkit was the primary objective, the project was flexible enough to develop other partnerships and tools for managers in response to specific needs.

The results of the initial assessments found several common themes in terms of gaps in activities that could impact the effectiveness of management. Two areas in particular were identified where additional guidance materials/tools for managers could be developed in relation to business planning for World Heritage sites and monitoring implementation of management plans.

Shell Foundation – UNESCO/WHC Business Planning Toolkit

Business planning helps World Heritage managers to systematically assess the various management inputs and processes that constitute their agency, so as to take the initiative in identifying and correcting weaknesses, and to make best use of strengths so that management objectives can be met with greater efficiency.

Sources of World Heritage site finance are frequently diverse, often combining government grants with international aid, trust funds and direct income from resource users. But whatever the source, without good business planning skills it is unlikely that access to financial resources or use of available resources will be totally effective. A cursory evaluation of a typical site manager's training background will often reveal a gap in terms of overall business planning capacity. Several of the World Heritage sites taking part in the EoH project identified business and financial planning as a weakness in their initial assessment.

There is already a vast amount of advice available on business planning. But most of this is written for enterprises aimed solely at making money; in contrast, the primary objective of World Heritage sites is to achieve effective in-situ conservation and income generation is instead a means to that end. In these conditions, the concept of business planning become less about generating income and more about overall effective management of financial resources. Rather than showing increased profits and growth margins, the site manager's business is to achieve maximum effectiveness in attaining the site's overall objectives and conserving the major values. World Heritage sites are nonetheless 'big business' in terms of annual turnover and employees and assets/infrastructure, most national agencies having turnovers of millions of dollars a year. Given that much of this is in the form of state funding,

there is a strong political imperative to demonstrate that funds are being used as efficiently as possible.

The need to develop World Heritage/protected area-focused business planning advice was thus seen as an important addition to the overall aim of the EoH project in terms of improving management effectiveness of World Heritage sites. The opportunity to link protected area and World Heritage expertise with big business presented itself through the memorandum of agreement between Shell and UNESCO and the development of the 'Shell Foundation – UNESCO/WHC Business Planning Skills' pilot project.

The objective of the project was to develop a generic business planning toolkit that will assist World Heritage site managers to build capacity in developing three-year business plans. Shell Foundation, with support from Shell International business consultants, developed a draft Business Planning Toolkit specific to the EoH project in 2004/5, which aims to provide:
• Guidance on completing the main elements of a business plan
• Development of capacity to realise the plan (finance and people)
• Implementation of activities needed to achieve the planned goals.

Two pilot training projects were completed with the Seychelles Island Foundation (SIF) and Uganda Wildlife Authority (UWA) in EoH pilot sites (a third field test was carried out in a World Heritage site in the Philippines which was not part of the EoH project) to transfer business planning skills to the management of the Valle de Mai and Aldabra Atoll in the Seychelles and Bwindi Impenetrable Forest National Park in Uganda. Each organization received support in developing a business plan through two in-country training visits and additional mentoring support during the project period. Following field testing, the Business Planning Toolkit was updated to fill identified gaps and improve the clarity of the language and was finalized by a protected area training specialist to ensure maximum applicability to World Heritage site managers.

Items developed for sale to tourists visiting the two World Heritage sites in the Seychelles. The field-testing of the business planning toolkit in the Seychelles focussed on the opportunities presented by mass tourism in the Seychelles.

The toolkit is designed in a modular format so that different World Heritage sites can implement the elements they need most urgently (according to time and cost limitations). The toolkit is thus built in distinct parts following the structure of a standard business plan as shown in the box below.

Business Planning Toolkit

Section 1: Executive Summary

Section 2: Company Analysis
2.1. Company Profile
2.2. Vision & Mission
2.3. Present Situation
2.4. Stakeholder Analysis
2.5. SWOT Analysis
2.6. Goals & Objectives

Section 3: Market Analysis
3.1. Market Definition
3.2. PEST Analysis
3.3. Customer Profile
3.4. Competition
3.5. Strategic options

Section 4: Marketing Plan
4.1. Marketing Strategy
4.2. Product
4.3. Pricing
4.4. Place (Distribution)
4.5. Promotion
4.6. Market Forecasting

Section 5: Operational Plan
5.1. Procurement
5.2. Contractual Agreements
5.3. Fund Raising Activities
5.4. HSE activities
5.5. Preventative Maintenance

Section 6: HR Plan
6.1. Organizational structure
6.2. Staff profile
6.3. Staff Requirements
6.4. Training
6.5. Gap analysis

Section 7: Risk Plan
7.1. Risk Identification
7.2. Risk Evaluation
7.3. Risk Management
7.4. Contingency Planning

Section 8: Financial Plan
8.1. Capital Requirements
8.2. Budget
8.3. Financial Statements
8.5. Evaluation
8.6. Funding

Section 9: Action Plan

Example of section 2.6 (Goals and objectives) of the SIF Business Plan

Examples of goals stated in 2005 Business Plan	Achievements reported in early 2006
Improve financial independence from current ratio of self generating income/total income of 0.6, to 0.8 by 2006	
Develop detail budgets and quarterly tracking for all sites/operations	2005 budget developed and tracked on monthly basis with financial reports provided to Board of Trustees
Reduce 'unnecessary costs', e.g. maintenance and purchasing	Maintenance costs reduced by purchase of some new equipment and introduction of regular maintenance schedules for generators, air-conditioning systems, outboard engines, etc
Use of new technologies to reduce cost	Installation of VSAT (Very Small Aperture Terminal) satellite communication for better more cost effective communications
Improve staff skills	Three staff undergoing computer training; eight staff completed Intermediate First Aid training
Reduce number of job descriptions (more generic roles)	

Example of section 7.3, Risk Management, of the draft business plan developed by UWA for Bwindi Impenetrable Forest	
Risk Description	Competition from Rwanda for gorilla tourism
Link to Business Objectives	Reduced gorilla tourism
Risk Owner (Focal Point)	Chief Warden
Current Risk Responses	
Impact/Likelihood Rationale	Likelihood is high but impact is medium (cost of 600 million Shs).
Actions	• Train tour guides for better service provision and interpretation • Monitor quality of services provided by tour companies and hoteliers in protected area • Improve gorilla surveillance and communication to ensure availability of gorillas for viewing • Redesign gorilla tracking trails to ease tracking activity • Improve transportation for trackers to convenient starting points • Provide before and after tracking leisure activities to tourists • Motivate efficient tour companies • Improve access (roads) to the protected area

The Toolkit is aimed primarily at users with no business knowledge or experience. All business concepts are introduced at a basic level and no previous knowledge of business planning is required. All the templates and frameworks used in the toolkit are designed to be simple to use and easily applicable.

ParkPlan: Management Planning Implementation Database

ParkPlan has been developed to help managers track implementation of their primary management document. It enables the management plan to be presented in an electronic form so that the implementation of management actions can be tracked over time.

The initial idea of developing the *ParkPlan* tool was in response to a request to the EoH project from Serengeti National Park in Tanzania. In 2006, when Serengeti staff began the comprehensive review of their General Management Plan (GMP) they aimed to create a 'living' document and spent time thinking about the structure and usefulness of the plan. This resulted in the creation of a more flexible, ring-bound plan where staff members were able to add observations, schedules and progress throughout the life of the plan. But staff at Serengeti were unsure about how best to monitor the progress of implementation of the plan on a regular basis across all four management of their programmes.

Working together with Serengeti staff, the EoH project team and software developers, devised an electronic tool for tracking the implementation of the GMP. It was acknowledged that the static nature of planning documents was a widespread problem experienced by many protected area managers and it was decided to develop a generic tool that could also be used by other sites. The result was the database package .

The aim of the *ParkPlan* tool is to track progress in implementing the GMP for a protected area. It concentrates on tracking the completion of the specific actions developed to achieve the plan's targets and management objectives. The tool has three main purposes:

1. To provide detail on the progress of implementing management plan actions
2. To generate reports on the status of these actions
3. To facilitate operational planning based on the provisions of the management plan.

ParkPlan is designed to reflect the structure of any management plan. In the case of Serengeti National Park, the GMP is divided into the four park management programme sections – the Ecosystem Management Programme, the Tourism Management Programme, the Community Outreach Programme and the Park Operations Programme. Each programme has a set of management objectives and targets. Specific actions have been developed to meet each objective and its targets.

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Developing ParkPlan at Serengeti National Park, UR of Tanzania.

Therefore, *ParkPlan* focuses on detailing the implementation of the last stage of the tree – the specific actions which when completed should achieve the objectives for each programme. This hierarchal structure is referred to in the *ParkPlan* as the 'Action Tree' (see Figure A.1).

There are various ways of searching the database and then generating reports on the results:
- **Descriptors:** The main way of searching the database is via descriptors. These are key words (and priorities) that can be used for searching the database and grouping actions into management themes. For example, a detailed report on the status of all actions relating to 'Campsites' or 'Natural Resource Management' could be generated. (Descriptors for the Serengeti General Management Plan were developed through a group workshop with Serengeti managers, where each aspect of the management plan was assigned descriptor words, e.g. camping, tourism, poaching etc).
- **Hierarchal level:** Reports can be generated by searching against selected criteria at different levels of the plan (Action Tree). For example, searches can be conducted for the whole GMP, selected programmes or against specific objectives or targets.

- **Status:** This enables the progress on actions to be categorized and reported, ranging for example from 'not commenced' to 'complete'.
- **Priority:** low, medium or high. Prioritizing actions can assist when developing work plans and reporting on the progress of urgent tasks.

As results are collected over time, more detailed analyses of implementation progress and trends become possible. The flexible searching capabilities of a database allow the status of different components of the plan to be assessed and reported. Three main types of reports can be generated:
- **Detailed reports** provide a comprehensive overview of the progress in implementation of certain aspects of the management plan. Information will include the status of actions, priority, costs and responsibilities
- **To Do Reports** detail the timeframes, costs and individual staff member or unit responsible for the any group of actions in the plan.
- **Summary Reports** provide a brief overview of the progress in implementing the management plan.
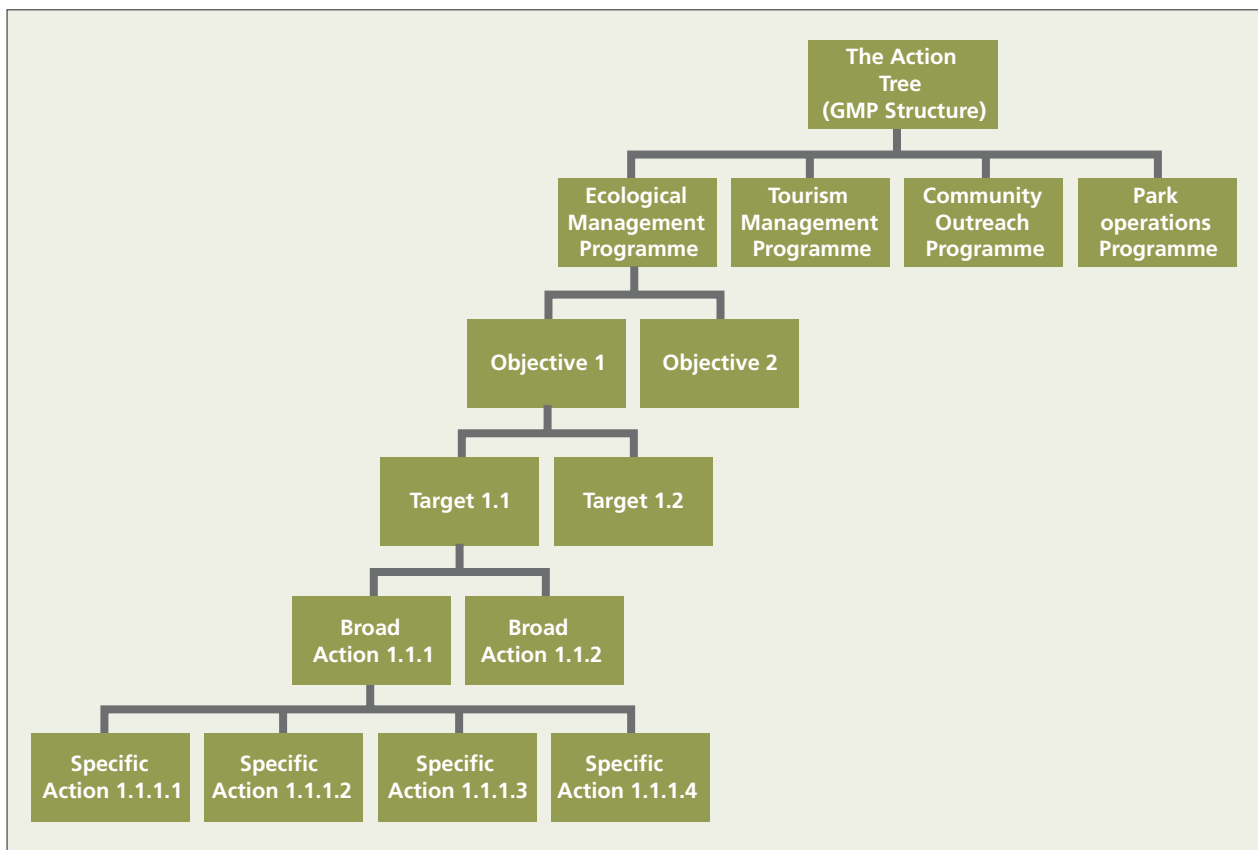
Figure A.1: The ParkPlan 'Action Tree'.

Adaptive management: in this context, incorporating learning into management of natural World Heritage sites, specifically the integration of design, management and monitoring to test assumptions in order to adapt and learn. In practice, this means that management systems (management plans, work plans, day-to-day responsibilities of staff) need to be flexible enough to be changed if an assessment or other experience shows that current approaches could be improved.

Assessment: the measurement or evaluation of an aspect of management.

Ecological integrity: a state of ecosystem development that is characteristic for its geographic location, has a full range of native species and supporting processes and is viable, i.e. is likely to persist.

Evaluation: the judgement of the status/condition or performance of some aspect of management against predetermined criteria (usually a set of standards or objectives); in this case including the objectives for which the World Heritage site was established.

Indicators: measurable entities that are used to assess the status and trend of a range of site values. A given value, objective, or additional information need can have multiple indicators. A good indicator meets the criteria of being measurable, precise, consistent and sensitive.

IUCN-WCPA Management effectiveness evaluation framework: a system for designing protected area management effectiveness evaluations based around six elements - context, planning, inputs, processes, outputs and outcomes. It is not a methodology, but a guide to developing assessment systems.

List of World Heritage in Danger: the List of World Heritage in Danger is designed to inform the international community of conditions which threaten the very characteristics for which a property was inscribed on the World Heritage List, and to encourage corrective action. A decision to include or remove a site from the Danger List is made by the World Heritage Committee.

Management effectiveness evaluation: is the assessment of how well a site is being managed – primarily the extent to which it is protecting values and achieving goals and objectives.

Monitoring: collecting information on indicators repeatedly over time to discover trends in the status of the World Heritage site and the activities and processes of management.

Natural World Heritage site: a natural area that has been recognized by the World Heritage Committee as being of outstanding universal value and thus inscribed on the World Heritage List. There are currently almost 200 natural World Heritage sites plus a few that are designated as 'mixed' sites having both natural and cultural values.

Objectives: specific statements detailing the desired accomplishments or outcomes of a particular set of activities, i.e. management of a World Heritage site. There will typically be multiple objectives.

Outstanding Universal Value: a specific term used by the *World Heritage Convention* to describe cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole. Outstanding Universal Value (OUV) is central to the whole World Heritage approach but often difficult to define or describe.

Periodic reporting: every six years, States Parties are invited to submit to the World Heritage Committee a periodic report on the application of the *World Heritage Convention*, including the state of conservation of the World Heritage properties located on its territories. These are usually summarized in reports from specific regions.

Reactive monitoring: reactive monitoring is the reporting by the World Heritage Centre, other sectors of UNESCO and the Advisory Bodies to the Committee on the state of conservation of specific World Heritage properties that are under threat.

Tool: as used here, an instrument (e.g. questionnaire, scorecard, monitoring methodology etc.) that aids in undertaking an assessment.

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The Enhancing our Heritage project operated in three continents between 2000 and 2007 and has involved many hundreds of people in workshops, conduct of assessments in the pilot sites and in other activities. It is impossible to acknowledge all of those people individually so we start these acknowledgements with a collective Thank-you to all these people – the project depended absolutely on your participation.

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Secondly, we would like to recognize the contribution made by Dr Natarajan Ishwaran from UNESCO who was instrumental in the conception of the project and who guided it through the first few years of implementation. The many other staff who contributed to the management of the project from the UNESCO World Heritage Centre are also thanked, in particular, Marc Patry and Claire Servoz.

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The regional, agency and site partners in the project were the engine house for the project in the field. These people, who made the project happen at the pilot sites and who also contributed to the global learning and development of the project over time are here listed by region and site. Thank you all for your commitment and energy. Of course the work at the sites involved many more people, too numerous to thank here by name but without whose input the project could not have achieved its results – Thank you to all.

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