

KENYA
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PROTECTED AREAS PLANNING FRAMEWORK

The Planning Manual

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PAPF Planning Unit



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Chapter 1. Introduction

1.1 Why are PAPF plans needed?

Management plans have the potential to play a crucial role in ensuring the coherent and co-ordinated development and management of protected areas (PAs), and in mitigating the impacts of the intensifying array of pressures that are currently impacting on PAs. However, although there is a long history of PA planning in Kenya, many of the management plans previously developed have not been used effectively, and have often ended up as reference materials rather than as a **practical day-to-day guide and framework for PA management**. Recognising this problem, in early 2006 KWS initiated the development of the **Protected Areas Planning Framework (PAPF)** as a way of ensuring that all new management plans provide practical and effective guidance and support for PA management, that new management plans are developed according to a common process and have a similar and easily understood structure, and that PA plans are actually implemented, rather than gathering dust on shelves. This uniformity in both process and structure aims to not only improve a plan's usability and ease of implementation (especially as KWS staff are transferred internally between different PAs), but, by removing the need to revisit issues regarding plan process, structure and content each time a new plan is developed, to also enhance the efficiency of new planning initiatives.

To ensure that the management plans produced are both realistic and appropriate, and to build wider stakeholder understanding and support for implementation, the PAPF planning process incorporates a high level of **stakeholder participation**. This is realised through a variety of mechanisms designed to enable stakeholders to meaningfully contribute their ideas and opinions throughout the plan's development. The structure of the management plans themselves has also been designed to maximise ease of implementation by PA managers as well as by KWS Headquarters, which is achieved through a rigorous application of the **Logical Framework Approach** in the plan's management programmes, and the development of **3-year Activity Plans** to provide the bridge between the 10-year components of the plan and the annual work planning and budgeting carried out by the PA managers responsible for plan implementation. The following sections provide an overview of the main functions of a PAPF management plan, the key features of the structure of a typical PAPF management plan, and the principal mechanisms for stakeholder and management participation in a plan's development.

1.2 What are the main functions of a PAPF plan?

Prior to the PAPF, management plans developed for Kenya's PAs were designed to fulfil a variety of often divergent functions, and as a result, the plans developed have varied greatly in the issues they address and the information they provide. However, PAPF-based plans are primarily designed to be a **practical management tool** supporting PA managers in carrying out their duties. PAPF plans achieve this aim by providing strategic guidance on the **goals** towards which management is working, and a series of **prescriptions and management actions** that need to be implemented in order to achieve these aims. The following points summarise the key functions of a PAPF management plan:

- ▶ **Vision:** The plan sets out a common understanding between stakeholders and managers on the PA's purpose and its exceptional resources, towards which all management action in the PA is focused
- ▶ **What:** The plan establishes clear management objectives that are agreed by both stakeholders and managers and that, if achieved, will ensure the PA purpose will be fulfilled
- ▶ **How:** The plan provides a rationale and clear, unambiguous guidance on the implementation of the specific management actions that managers will need to implement over the 10-year timeframe of the plan in order to achieve the management objectives
- ▶ **When and Who:** The plan provides a series of detailed 3-year activity plans designed to turn the management plan into practical, timebound and realistic activities on the ground. The activity plans break down the implementation of each action into a series of discrete activities, and set out the timeframe for the implementation of each activity and who is responsible for its completion
- ▶ **Where:** The plan includes a zonation scheme to enable different types and intensities of use in different parts of the area, and to help reconcile the sometimes competing conservation and development objectives
- ▶ **Rules:** The plan sets out clear and unambiguous prescriptions on what can and cannot occur in different parts of the area (i.e. the different zones) in order to achieve the area's management objectives and fulfil the area purpose
- ▶ **Results:** The plan provides a framework for monitoring both the impacts (positive and negative) resulting from plan implementation, and includes 'milestones' for measuring plan implementation itself

In contrast to many previous management plans, a PAPF plan is **NOT** designed to:

- ▶ Provide a comprehensive reference source for the area, with detailed background information on the area's history, biodiversity, ecology, geology, soil types, etc.
- ▶ Set out a detailed inventory of issues or problems impacting on the area that are not directly addressed through the plan's management objectives and actions
- ▶ Provide detailed descriptions of the area's management, administration, and national or KWS policies, unless they are relevant to the plan's management objectives and actions
- ▶ Make provisions for routine or recurrent management actions or activities, unless the plan sets out significant changes to the current way such actions are undertaken in the area

1.3 How are PAPF plans structured?

The structure of PAPF management plans has been developed to be as simple as possible, and to both improve a plan's usability and ease of implementation by KWS field staff and management, and enhance understanding and support for plan implementation by a wide cross-section of external stakeholders. The PAPF plan structure can best be understood by examining an existing PAPF-produced plan, such as the Meru Conservation Area management plan. In addition, the PAPF plan structure is constantly referred to in the various chapters of this manual, and the full structure will gradually emerge as you work through the planning process step by step. However, as a summary and brief introduction, the main elements of a typical PAPF plan are laid out in Table 1 overpage.

Table 1: The structure of a typical PAPF plan

PAPF Plan Section	Description
1. Plan Foundations	This section sets out the basis on which the management plan has been developed. The three principal components of this section are: an area description , which briefly describes the geographical scope and legal status of the protected area or PA complex; a PA purpose statement that establishes the overall goal towards which all management in the area is working; and a description of the exceptional resource values , i.e. the area's resources that provide outstanding benefits to local, national and international stakeholders, or that are especially important for maintaining the area's unique qualities.
2. The Zonation Scheme	A typical zonation scheme contains a section on visitor use zones , which sets out the areas (i.e. the zones) of the PA(s) where different types of visitor use and tourism developments are permitted. The visitor use zonation scheme provides a description of the area each zone covers, and the major physical and geographical features it contains. In addition, for each of the visitor use zones the plan also sets out specific prescriptions on: the types of visitor activity allowed; the size and type of tourism accommodation facilities permitted; and the number of beds that can be developed (ideally based on rationally defined Limits of Acceptable Use, see Box 12 in Chapter 7). If appropriate, a zonation scheme may also include a section on management zones , which describe the zones that the area has been divided into in order to decentralise and improve the efficiency of the area's administration and management.
3. The Management Programmes	<p>A typical PAPF management plan has five management programmes, which make up the bulk of the completed management plan. In order to facilitate plan implementation, each management programme, or in some cases specific objectives they contain, is designed to align with PA management section(s), and/or KWS HQ departments. Allocating responsibility for implementing individual management programmes (or objectives) to specific sections also enhances implementation by helping to build a sense of ownership and accountability for a plan's success in the section concerned. In addition, structuring a plan into management programmes also facilitates the application of the Logical Framework Approach to planning (see section 5.1.1 for details).</p> <p>The five management programmes that make up a typical PAPF management plan are:</p> <ul style="list-style-type: none"> ▶ Ecological Management Programme ▶ Tourism Management Programme ▶ Community Partnership and Education Programme ▶ Security Programme ▶ Protected Area Operations Programme <p>▶ Purpose and Strategy Each management programme includes a programme purpose statement, which sets out the overall goal to which management is working towards under this programme, and a strategy describing the overall management approaches pursued through the programme.</p> <p>▶ Management Objectives and Actions Each programme also contains management objectives that set out the goals that MCA management aims to achieve, and a set of specific management actions to achieve these objectives.</p> <p>▶ 3-Year Activity Plan The activity plans break down the individual management actions into a series of tangible management activities, sets out the timeframe for their implementation, allocates responsibility for their completion, and the "milestones" that management aims to achieve. These activity plans are designed to provide the basis for annual operational planning by PA managers, and as such provide the vital link between the management plan's 10-year outlook, and day-to-day management activities.</p>
4. Plan Monitoring	This section describes the anticipated positive, and where appropriate negative, effects and impacts resulting from the implementation of the

PAPF Plan Section	Description
	plan's management programmes. The framework also provides easily measurable and quantifiable indicators for assessing these impacts, and potential sources of the information required to measure them.
5. Annexes	<p>Traditionally management plans have often provided a significant amount of background information on the PA in question, most frequently at the beginning of the plan in a lengthy introduction section. However, in order to keep the management plan tightly focused and easily understood, PAPF plans include this information in annexes, where it does not detract from the principal functions of the plan, but remains accessible to interested readers. The following points summarise annexes included in a typical PAPF plan:</p> <ul style="list-style-type: none"> ▶ The problems and opportunities analysis Developed as part of the planning process but does not form part of the final plan. Included (usually in table form) to ensure that information is not lost, and to enable a "double check" that the key issues in the area were identified and discussed during the planning process. ▶ Summary resource base inventory: Again, the information included is collected during the planning process, and provides the basis for much of the final plan contents. The information is included here to ensure that it is retained, and easily accessible to interested readers. ▶ Planning process events and timing: Normally presented in a table or diagram showing the various planning events and the dates they took place. ▶ Participation in plan development: Normally presented in a table listing the participants in alphabetical order, and showing the planning events they participated in.

1.4 Who's involved?

The PAPF planning process has been designed to ensure a high degree of stakeholder (both internal KWS stakeholders as well as external stakeholders) participation in the development of a PA management plan. This is aimed at encouraging stakeholders to take ownership of the planning process, which helps ensure that the plan is both realistic and appropriate, and that stakeholders also support its implementation. Effective participation is achieved through a multi-layered approach involving a variety of mechanisms designed to ensure that all stakeholders can meaningfully contribute to the plan's development. The four principal mechanisms used to enable this participation are: The Core Planning Team, Stakeholder Workshops, Expert Working Groups, and individual consultations. These stakeholder participation mechanisms are described in more detail in the following sections.

1.4.1 The Core Planning Team

The **Core Planning Team** (CPT) is, as the name suggests, made up of the core people that are responsible for the management of the protected area concerned, and may include KWS field and Headquarters staff as well as managers from PA partner institutions. The CPT is the driving force behind the development of a management plan, and provides oversight and guidance throughout the entire management plan development process. The CPT meets as necessary throughout the planning process, and CPT members also participate in all other planning events.

The CPT is kept small to keep the planning process as efficient as possible, and is normally made up of around 8-10 members. A wider cross section of stakeholders will have the opportunity to contribute to the planning process through other participation mechanisms (see next

sections). If a plan is being developed to cover several PAs (i.e. a conservation area), the CPT will need to be expanded to include all plan owners (e.g. county council or group ranch representatives). Box 1 below gives the typical roles and membership of the CPT:

Box 1. CPT roles and membership	
CPT Terms of Reference	
<ul style="list-style-type: none"> ▶ Oversee and provide guidance to the entire planning process and plan development ▶ Ensure appropriate stakeholder participation throughout the planning process ▶ Ensure that the plan responds to the key management issues, obstacles and opportunities in the area concerned ▶ Ensure that the plan is in line with the PAPF, and is clearly and logically structured ▶ Ensure the plan being developed is in line with the management needs and implementation capacity of KWS, and any other plan owners 	
Typical CPT Membership	
<ul style="list-style-type: none"> ▶ The Senior PA Warden (CPT team leader) ▶ A KWS PAPF Unit Planner ▶ Other PA senior staff (as appropriate) ▶ Other PA partner institutions (e.g. county council wardens as appropriate) ▶ Other key resource people (as appropriate) ▶ A Plan Facilitator 	

1.4.2 Stakeholder Workshops

Stakeholder workshops are the main mechanisms for directly involving a wide cross spectrum of stakeholders in the planning process. The workshops not only enable stakeholders to directly contribute to a plan's development, but also help raise awareness of the planning initiative and generate a wide base of support for the management plan. Two Stakeholder Workshops are held during a plan's development: a **Stakeholder Planning Workshop** near the beginning, and a **Stakeholder Presentation Workshop** near the end of the planning process. Both workshops typically involve around 30-40 stakeholders, including representatives from area management, KWS HQ, local government, local communities, tour operators and investors, and researchers and scientists. The two stakeholder workshops generally cover the following topics:

- ▶ **Stakeholder Planning Workshop:** Enables stakeholders to define the purpose of the PA and the exceptional values that the PA provides, identify the key problems and issues the plan must address to preserve these values and fulfil the PA purpose, and define a shared vision that describes the future desired state of the PA from the stakeholder perspective.
- ▶ **Stakeholder Presentation Workshop:** Provides an opportunity for stakeholders to review, comment on and endorse the entire contents of the draft management plan prior to it being finalised.

1.4.3 Expert Working Groups

Expert Working Groups are designed to enable a small group of technical experts and key stakeholders to make a significant contribution to the development of the management plan. Each group is made up of around 10-15 participants, and the membership of each group is selected based on technical knowledge of the area and the issues concerned, rather than a representative basis (as is the case with the broader Stakeholder Workshops). Typical working group members include CPT members and other key stakeholders and experts (for example, Tourism Working Group meetings are likely to involve tourism industry representatives and investors in the area, and the Ecology Working Group Meetings may involve external researchers and scientists). Each working group is responsible for establishing the relevant management programme's purpose and objectives, and developing the subsidiary management actions necessary for achieving each objective. As appropriate, working groups may also be responsible for developing and/or reviewing the Zonation Scheme, and any Limits of Acceptable Use and management prescriptions the scheme contains.

1.4.4 Individual stakeholder consultations

In addition to the formal opportunities provided through the Stakeholder Workshops and Working Groups, the planning process may also involve additional stakeholder consultations. These consultations should be designed to obtain specific information on particular aspects of the plan - for example the collection of information from tourists on the quality of the tourism product, or to provide an opportunity for stakeholders who could not be involved in any of PAPF's formal participation exercises to contribute their viewpoints and ideas.

1.5 Stages of the PAPF process

The development of a PAPF plan can be broken down into a number of major stages, each of which has specific planning outputs and events associated with it. The structure that has been adopted for the remainder of this manual is aligned with these planning process stages, as shown below:

- Chapter 2: Scoping the plan
- Chapter 3: Gathering planning information
- Chapter 4: Laying the plan foundations
- Chapter 5: Developing the management programmes
- Chapter 6: Developing the Ecological Management Programme
- Chapter 7: Develop the zonation scheme
- Chapter 8: Completing the plan
- Chapter 9: Operationalising the plan

It is, however, important to note that although the stages set out above provide an approximate guide to the order in which they should be completed, they are **not sequential**, and in some cases stages will overlap considerably. Perhaps the most obvious example of this is the development of the management programmes and the zonation scheme, which usually take place alongside each other.

Each of these planning process stages is elaborated throughout the rest of this manual, which includes guidance on the key components that make up each stage along with the specific outputs and events that each stage typically involves. Where appropriate **implementation guides** are also included that set out in more detail suggested steps and tips for specific planning events.

Chapter 2. Scoping the Plan

2.1 Rationale

The first stage in the development of a new management plan sets out the fundamentals of the new planning process, upon which common agreement is necessary for the planning process to proceed in a coherent and logical manner, and which are essential for ensuring that PA managers' expectations are in line with what the process is aiming to achieve. The key steps involved in this stage of a plan's development are:

- ▶ Assessing **previous plans** and the **type of planning process** needed, for example is a new plan needed or would a revision of an existing plan be sufficient?
- ▶ Defining plan **geographic scope** and **ownership**, that is the area that the plan will cover and who the final implementers of the document will be
- ▶ Constituting the **Core Planning Team (CPT)** to lead the planning process
- ▶ Agreeing **planning events** and the **timeframe** on which these events should occur
- ▶ Analysing **problems and opportunities** that the CPT feels are impacting on the area, and that the new plan should aim to address

The process of scoping the plan mainly takes place at a **Plan Launch Meeting** and the subsequent **Plan Scoping Meeting** (the first CPT meeting), and the key output at the end of this stage of the process is the **Plan Scope of Work**.

Outputs



A **Plan Scope of Work**, including:

- ▶ A definition of the plan geographic scope and ownership
- ▶ An overview of planning events needed and timeframe for completion
- ▶ A definition of CPT members and roles
- ▶ A problems and opportunities analysis
- ▶ A review of any previous management plans

Events



- ▶ A Plan Launch Meeting (typically attended by the KWS Director, Deputy Directors and other key KWS HQ staff and the relevant PA wardens)
- ▶ A Plan Scoping Meeting (first CPT meeting)

2.2 Assessing previous plans and the type of planning process needed

The assessment of any plans, or draft plans, which may already exist for the PA is an important first step in the initiation of a new planning process. This assessment not only helps define what type of planning process is most appropriate for the PA in question (i.e. new plan, major revision or minor revision), but also provides the assessor with an overview of the key problems and issues impacting the area, and gives an indication of information already collected and analysed that could be brought forward to inform the new planning process (especially if the existing plan is relatively recent).

If the existing plan has deviated significantly from the PAPF, and/or is quite out of date, a **new planning process** is likely to be needed. This will involve following all the appropriate planning process stages as set out in this manual. On the other hand, if the plan is relatively recent, a **major revision** may be sufficient, which typically involves the Expert Working Group meetings and a final Stakeholder Presentation Workshop, with the rest of the work being completed by the CPT and the Planning Facilitator. While this expedited process reduces stakeholder participation, it does speed up plan production and reduce the costs involved. If the plan is both roughly in line with key aspects of the PAPF and recent, a **minor revision** may be sufficient, which essentially involves a restructuring and reformatting of the existing plan to meet PAPF standards (possibly one or two Expert Working Group Meetings if certain aspects of the plan are particularly weak), followed by a Plan Endorsement Meeting and a Stakeholder Presentation Workshop.

The assessment of any existing or draft plans is normally carried out by the KWS PAPF Unit Planner once the decision to develop a management plan for an area has been taken. Generic criteria to assess an existing plan with regard to the key features of the PAPF planning process and structure are included on the CD-ROM accompanying this manual. Once completed, the assessment can be used to inform discussions and decisions at the **Plan Launch Meeting**, where the type of planning initiative should be agreed. Once finalised, the plan assessment can be included in the draft **Plan Scope of Work**.

2.3 Defining plan geographic scope and ownership

Alongside defining the type of planning process needed, the other major aspect of a new planning initiative that needs to be addressed at the outset of the planning process is the **geographic scope** that the plan will cover and, closely linked to this, who the **owners** and implementers of the plan are. Both of these aspects are crucial to the implementation of the planning process as well as the eventual success of the plan.

There are several geographical scales at which management plans can potentially be targeted, ranging from a single protected area, through multiple protected areas, to entire ecosystems or landscapes. Selecting which of these scales is most appropriate depends on a variety of factors, including the geographical proximity of the concerned protected areas, the existence of critical wildlife corridors or dispersal areas, the possibilities of collaborating with other agencies (such as county councils, the Kenya Forest Service or group ranches) in joint management of a PA complex, and KWS' internal management arrangements in the area concerned.

The appropriate geographical scope of PA plans is an issue that is presently under discussion within KWS, and further guidance and elaboration on this is likely to be included in a later edition of this PAPF manual. From the standpoint of the PAPF approach, the key consideration is that, whichever scale of planning is chosen, it is important that the eventual management plan produced remains realistic and achievable. This is relatively easy to achieve where only a single KWS protected area is involved, since the planning area is most likely to be aligned with the management arrangements for the PA concerned. However, if there are multiple protected areas included in the planning area, then consideration has to be given to the types of management arrangements that KWS has put in place in the area. For example, if the planning area is under the authority of several different KWS management units, then it is likely that it will be necessary to develop separate 3-year activity plans for the different KWS management units at the minimum, or even to develop different management actions for the different KWS management units, or even to develop separate management plans for each constituent PA making up the wider area.

2.3.1 Conservation area plans

A more challenging situation is one where areas outside of KWS' jurisdiction and management responsibility are ideally to be included in the geographical scope of the plan. In this case, if the plan is to remain realistic and achievable, it is necessary that the **owners** of those areas (i.e. the agencies with management authority over those areas) are also involved as partners in the planning process, and that they eventually endorse and approve the plan for joint implementation. If this is not the case, then it is highly likely that the plan will soon become unimplementable, when the management actions and prescriptions that are set out in the plan are not implemented in those parts of the plan area beyond KWS' direct control.

Where KWS is able to establish partnerships with other agencies and put into place management agreements with these agencies, this is termed in the PAPF a **Conservation Area** plan. For example, this is the case in the Meru Conservation Area, where KWS has joined in partnership and established management agreements with the Isiolo and Mwingi County Councils for the management of the entire MCA, comprising two KWS national parks and two county council-managed national reserves. This is perhaps an ideal arrangement, but it does require extensive preparations and negotiations with the agencies concerned, plus the formulation of Memorandums of Understanding with these agencies (see Box 2 below).

2.3.2 Ecosystem or landscape plans

Where KWS wishes to produce a plan that covers a wider geographical scope, for example because of critical dispersal areas and migration corridors vital to the survival of the KWS PA, but where it is not possible to establish partnerships and conclude management agreements with other agencies to develop a conservation area plan as described above, then there are two main options. The first is to develop a plan for the core KWS protected area(s), and ensure that there is a significant component of the core plan addressing issues in the wider ecosystem, usually through aspects of the Ecological Management and Community Partnership programmes. If this approach is considered to be inadequate in the area concerned, then the final option is to develop a plan for the wider ecosystem or landscape in its entirety. However, this option represents a different type of planning process from that detailed in this present manual, and it is not appropriate to use this manual in its current form to develop an ecosystem or landscape plan. This is because of the strong emphasis in the PAPF approach on the requirement for management authority over the area concerned, in order to implement the management actions and prescriptions that underpin the structure of the eventual management plan. A later edition of the PAPF manual is likely to contain specific guidance on the key aspects of an ecosystem or landscape plan, and how to develop this type of plan.

Table 2 overpage provides an overview of the three types of management plans discussed here (protected area; conservation area and ecosystem/landscape), and the main implications the different types of plan have on the planning process and on final plan contents. In addition, Figure 1 overpage shows a simple decision tree designed to help identify which type of management plan is most appropriate under different circumstances.

2.3.3 Plan owners

Closely linked to the geographic scope of the plan is the identification of the plan **owners and implementers**, i.e. the stakeholders with the mandate to manage the area(s) in question. In order to ensure that the plan succeeds, these stakeholders need to formally approve the contents of the completed plan on the plan's "Approval Page", and are directly responsi-

ble for the implementation of the management plan's actions and the enforcement of its prescriptions. It is therefore essential that all plan owners are represented on the Core Planning Team, and that they be closely involved in all stages of the management plan's development.

Figure 1: Decision Tree for deciding on the plan geographical scope

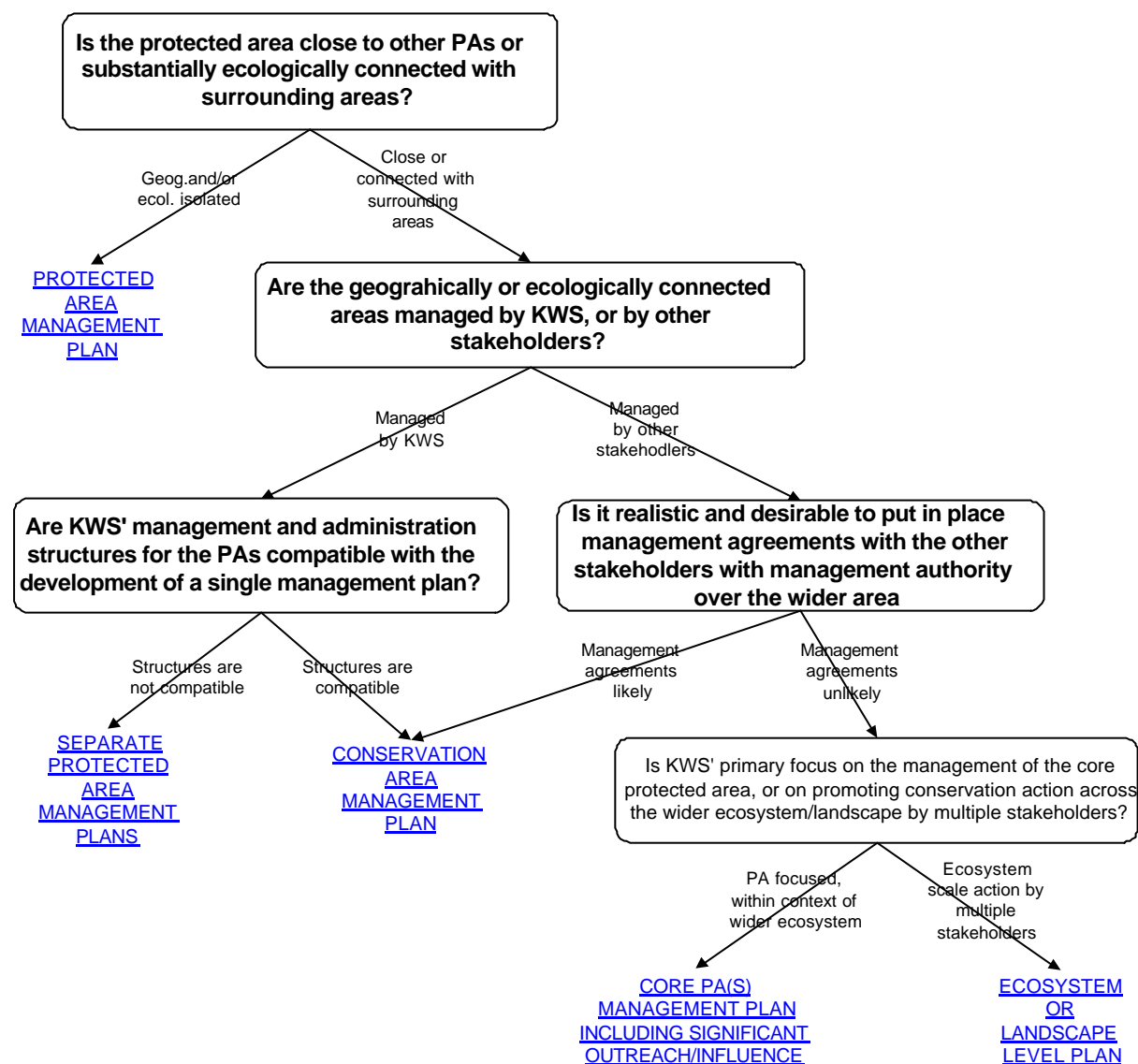


Table 2 overpage includes a summary of the implications that the different types of plan have on plan ownership. As elaborated in the table, where there are multiple plan owners (for example in a conservation area plan) **management agreements** (MoUs) may need to be signed between the plan owners to support plan implementation, and separate 3-year activity plans may be needed to clearly set out which parts of the plan each owner is responsible for implementing. Box 2 following the table provides further explanation of the functions and key features of the management agreements that will be needed to support coordinated management plan implementation by a number of plan owners.

An initial definition of the geographic scope and ownership of the new management plan is normally defined by the KWS PAPF Unit Planner, and then put forward at the **Plan Launch Meeting** for review and endorsement by senior KWS management. Once agreed, the geographic scope for the new planning initiative, along with a definition of the plan owners can then be included in the draft **Plan Scope of Work**.

Table 2: The geographic scope, ownership and implications for plan structure and contents for the different types of management plans

	Geographic Scope	Plan Ownership	Implications for Planning
Protected Area Management Plan	Covers a single protected area, but is likely to include actions implemented by KWS taking place beyond the area's boundary that aim to ensure the conservation of the PAs biodiversity, or fulfil KWS' obligations to PA adjacent communities.	There is a single plan owner (e.g. KWS) that has the mandate to manage the protected area the plan covers.	<ul style="list-style-type: none"> ▶ An "influence zone" may extend beyond the PA, but will only include actions implemented by plan owner ▶ Zonal prescriptions, rules and regulations limited to within the PA itself
Conservation Area Management Plan	Covers two or more protected areas, or a combination of PA(s) and/or other areas where the primary land use is, or is compatible with, biodiversity conservation. The plan also is likely to include actions beyond the conservation area's boundary to enhance the conservation of the area's biodiversity, or fulfil obligations to adjacent communities.	Plan ownership will depend on the number of different institutions or individuals with the mandate to manage the areas included in the plan. For example in the Tsavo Conservation Area plan, made up of three national parks, KWS is the sole plan owner, whereas in the Meru Conservation Area, made up of two national parks and two national reserves, there are three plan owners: KWS, and the two county councils who are responsible for the national reserves the plan covers.	<ul style="list-style-type: none"> ▶ An "influence zone" may extend beyond the core PAs, but will only include actions implemented by plan owner(s) ▶ Zonal prescriptions and regulations remain limited to the PAs ▶ Management agreements are needed to support plan implementation if there are multiple owners (see Box 2 below) ▶ Separate 3-Year Activity Plans (see section 8.4 below) may be needed for each plan owner, or for separate areas managed by the same owner
Ecosystem or Landscape Plan¹	This type of plan is designed to focus and provide coordination for conservation action over an entire ecosystem/landscape. As such, plans may potentially cover a very large area, often defined on an ecological or hydrological basis, which may or may not incorporate one or more PAs.	Plan ownership is likely to rest with the institution(s) spearheading plan development. However, in contrast to PA and CA plans, the scope and ownership of ecosystem plans do not necessarily correspond. This has significant ramifications on the plan's function and contents, and in particular on its ability to specify prescriptions and actions in area's beyond the mandate of the plan's owners.	<ul style="list-style-type: none"> ▶ Disconnects between plan scope and ownership means the plan generally focus on providing <u>guidance</u> on biodiversity priorities in the ecosystem, and <u>strategies</u> to enhance their survival ▶ If the plan covers a PA under the mandate of the plan owners, a clear division is needed between this part of the plan, which will contain actions and prescriptions, and the remainder of the plan

¹ Although the PAPF has not been designed to support this type of planning initiative, some features such as Logical Framework Approach, and participation mechanisms may assist ecosystem or landscape planning efforts

Box 2. Management plan implementation agreements

The implementation of a unified management plan for several adjacent protected areas (that together make up a conservation area) necessitates a high degree of collaboration between the institutions with jurisdiction over the constituent PAs. Successful collaboration ultimately hinges on the explicit commitment of the collaborating institutions to implementing the detailed management objectives, actions and prescriptions that are set out in the management plan, as well as agreement on a variety of fundamental issues that underlie the coordinated management of a protected area complex. These often include, for example, issues such as visitor access between the individual PAs, and the equitable distribution of tourism revenues between the collaborating institutions.

To achieve this successful collaboration, the PAPF advocates putting into place formal **Memorandum(s) of Understanding** (MoU) between the various plan owners to support management plan implementation. These MoUs set out in a transparent and explicit fashion the agreements on the fundamental management issues, and clarify the explicit commitments, roles and responsibilities of the plan owners.

Alongside the introduction and preamble that provides the background and purpose of the MoU, some of the key issues typically addressed in an MoU relating to the implementation of a management plan include:

- ▶ A definition of the roles and responsibilities of each of the plan owners;
- ▶ Agreements on management and visitor access over the entire conservation area;
- ▶ Agreements on distribution of revenues and allocation of expenditure

The duration of an MoU typically coincides with the 10-year lifespan of the management plan, potentially with a review of the MoU after five years to coincide with the mid-term plan review. An example MoU to support the implementation of the Meru Conservation Area Management Plan between KWS and Mwingi County Council is included on the CD-ROM accompanying this document.

2.4 Constituting the Core Planning Team

As described under section 1.4.2 above, the CPT is the driving force behind the development of a management plan, and provides oversight and guidance throughout the entire management plan development process. The previous agreements on the geographical scope and ownership of the plan enable the individual CPT members to be defined, and specific roles allocated. Typical membership normally includes the people that are responsible for the management of the protected area concerned, and may include KWS field and Headquarters staff, as well as managers from PA partner institutions (such as county council wardens or Kenya Forest Service staff if a conservation area plan is being developed).

Proposed membership of the CPT can be put forward by the PAPF Unit Planner for review at the **Plan Launch Meeting**. Once agreed, the first CPT meeting can be held (the Plan Scoping Meeting), which normally takes place in the PA concerned. At this meeting the draft **Plan Scope of Work** is reviewed by CPT members (i.e. the plan geographic scope, ownership and previous plan assessment) and the remaining sections of this document completed. This includes agreeing the planning events needed and the timeframe on which they should occur, and an initial identification of the problems and opportunities impacting on the area. These are discussed in more detail in the following sections.

2.5 Agreeing planning events and timeframe

This is a relatively straightforward exercise and simply involves the CPT members reviewing the proposed planning events (in line with the type of planning process: new, major revision or minor revision) and agreeing the approximate timeframe on which they should occur. An overview of planning process stages is provided above in section 1.5 above. This should be adapted as necessary if only a revision of an existing plan is needed. As a general rule of thumb, the development of a new plan could take between nine months and a year, with plan revisions taking less time. Once agreed, the Planning Facilitator normally incorporates the proposed events and timeframe into the final **Plan Scope of Work**.

2.6 Analysing problems and opportunities

The problems and opportunities analysis provides the opportunity for the area's key stakeholders (i.e. the CPT) to express and rank what they feel are the most significant problems impacting on the area, or are the most important opportunities that the new planning initiative should capitalise on. This exercise complements the similar exercise undertaken later by a broader cross section of stakeholders at the later Stakeholder Planning Workshop (see Page 24 for details), but nevertheless remains an essential mechanism for ensuring that the plan responds to the concerns of the area's most important stakeholders.

The exercise is relatively simple and proceeds in the same way as for the Stakeholder Planning Workshop. This involves CPT members brainstorming their ideas about problems and opportunities, which are then organised according to major "themes" under which similar problems and opportunities are grouped together. Visualisation techniques (see Box 3 below) are especially useful for this exercise as they allow ideas to be easily moved around and regrouped as the process continues. If time permits, a ranking exercise (see Box 6 in Chapter 4) can also be undertaken to identify the most important problems and opportunities. The **Stakeholder Planning Workshop Implementation Guide** provides more detailed guidance on carrying out this exercise. Once completed, the results of this exercise (and the ranking) are incorporated into the final **Plan Scope of Work** by the Planning Facilitator.

Box 3. The Use of Visualisation in PA planning

The **participation** of stakeholders in PA management planning is crucial to ensure that the plan produced is both realistic and appropriate, and that they are committed to its implementation. An efficient means of obtaining participation is the gathering of representative stakeholders at group events, such as the Stakeholder Workshops and Expert Working Groups. However, such events do not automatically guarantee the active engagement of participants, and unless due care is taken, they can become reduced to a sequence of presentations, and dominated by one-way communication from speaker to audience. This can leave little room for interaction, and less opportunity to resolve differences, come to agreement, or reach consensus.

Visualisation involves the use of various techniques to put in front of the group ideas, issues, problems and positions, in order to focus attention, and facilitate a collective and concentrated process of thinking. It helps to structure discussion and argument, reduce repetition and foster a sense of direction in a meeting. Visualisation techniques include any means of putting ideas, issues, problems and proposals, in front of a group of people – e.g. blackboard, whiteboard, flip-chart, overhead projection slides, computer-generated slides. However, many of the available techniques make interaction difficult, especially rapid recording of new ideas, amendments to existing ideas, and rearrangement of ideas to reflect their relationships – as is crucial during many stages of the PA planning process.

One proven effective technique is the use of **cards and pinboards**. Participants express their ideas on 8" by 4" cards in letters large enough to be read by all members of the group. The cards are pinned on pinboards, and then read, discussed, clustered, arranged, moved, removed, replaced, amended . . . all with the awareness and understanding of the whole group, until consensus is achieved, or, where consensus is unattainable, differences are revealed and noted. By this means, all participants in the group event are provided with the opportunity and incentive to contribute to the process, and participation becomes a reality. Less articulate and less self-confident participants find a means of expression, and those who might normally dominate a group are required to let others have their say. Cards and pinboards have the additional advantage of being low-tech, participant-friendly, and don't rely on mastery of computers or an uninterrupted power supply!



Chapter 3. Gathering planning information

3.1 Rationale

The second stage in the planning process aims to ensure that the plan is developed based on relevant, up-to-date and accurate information. This information is used to both inform stakeholder discussions as the planning process continues, and enable the development of key aspects of the plan (e.g. the zonation scheme). Although described here as a discrete stage in the planning process, in practice information gathering continues throughout the planning process as new issues come to light, and more specific information is needed and sourced.

Gathering information that is typically needed to inform a planning process involves two main steps, which normally occur around the same time:

- ▶ Collating and synthesising **existing information**, which can be used to inform and support the planning process and help to ensure the plan is appropriate
- ▶ Establishing a **GIS database**, which provides spatial information and enables the development of maps to illustrate important aspects of the plan and support the development of the zonation scheme.

A **Field Reconnaissance Visit** often takes place at the early stages of information gathering (sometimes in conjunction with the Plan Scoping Meeting). This enables participants to gain a first-hand understanding of some of the key issues and opportunities impacting on the PA, and to begin discussing possible solutions.

The key outputs from this stage of the planning process, both of which should ideally be well on the way to completion before the next stage of the planning process begins, are the **Resource Base Information Report** and a **GIS database**.

Outputs



- ▶ A **Resource Base Information Report**, which contains a summary of relevant, up-to-date and accurate information likely to be needed for the planning process.
- ▶ A **GIS database** that provides the necessary spatial information to enable the development and illustration of key aspects of the plan

Events



- ▶ Field Reconnaissance Visit

3.2 Collating and synthesising existing information

There is often a large amount of **existing information** that could be potentially very useful for informing planning processes, but in many cases it is dispersed across different PA departments or sections, and in some cases between KWS HQ and the field. It is also often in a format not immediately suitable for planning purposes. Unless this information is collected and consolidated at an early stage in the planning process, key information can easily be missed, and the logical basis of the plan's development undermined. An important early stage in the planning process therefore is to initiate a process of identifying, sourcing, collating and finally synthesising this information, so that planning is based on the most up-to-date and accurate information available. This information collection process usually begins early in the planning following the identification of management problems and opportunities by the CPT, but is likely to continue throughout the entire planning process.

To enhance the efficiency and cost effectiveness of the information gathering process, it is important to focus on the information that is critical to plan development, rather than on providing detailed background information on the PA's history, geology, soil types, or other non-essential information. One way to help ensure that the information collection remains tightly focused is to use the problems and opportunities analysis completed by the Core Planning Team (see section 2.6) as a framework for identifying information requirements.

Although the specific information collected will be contingent on the particular issues identified as impacting on the PA, typical information collected at this early stage in the planning process often includes, but is not restricted to:

- ▶ **Information on the occurrence and status of natural resources in the PA**, including:
 - Important wildlife population numbers and trends
 - Species-specific monitoring or census reports
 - Information on previous studies and/or research of relevance
 - Details on any issues/threats affecting specific PA species or habitats
- ▶ **Information and statistics on trends in tourism use**, including:
 - An inventory of tourism facilities in the area, including type, bed capacity, GPS location, occupancy rates (and details of any planned or tendered tourism facilities and infrastructure)
 - Current visitor activities permitted in the PA, and any rules/regulations that apply to these
 - Information on visitor numbers to the area, ideally for last 3-5 years and including point of entry and, if possible, length of stay
- ▶ **Information on the communities living adjacent to the protected area**, including:
 - A summary of past or ongoing community and education activities
 - Details of any past or ongoing benefit sharing mechanisms with communities around the PA
 - Any human wildlife conflict incidences, and steps taken to mitigate this, and/or details of any compensation/consolation schemes
 - Details of any reoccurring cultural or natural resource access issues
- ▶ **Information on PA operations infrastructure and resources**, including:
 - Information on staff numbers and positions, staff training and/or any existing staff needs assessments
 - Details of PA infrastructure such as headquarters, sub-headquarters, ranger posts and residential accommodation
 - Any PA specific byelaws and other rules/regulations (e.g. relating to tourism, research, or facilities development)
 - Poaching/security incident and arrest reports

- Any other existing operational plans (e.g. fire management, road development, annual work plans, staff needs etc.)
- Revenue and expenditure figures (recurrent and capital/development) and sources of income for recent years

This information is normally consolidated into the **Resource Base Information Report**. This is intended to be a concise document providing relevant, up-to-date and accurate information needed for the PA planning process, and is often the main information resource used by the CPT and Planning Facilitator throughout the planning process. Although these documents can contain a lot of information, putting species lists, relevant research publications, and other lengthy background documents of potential importance in appendices should help to keep the document readable.

The length of time needed to develop the report will depend on the PA concerned, the information available, and how easy this information is to obtain, but is likely to involve several days of data collection and consultations in the PA concerned, additional days collecting information and consulting key individuals at KWS HQ, and further time required to synthesise the information into a concise document. Information collection in the field is probably coordinated by the CPT Leader and field-based members of the CPT, with the Planning Facilitator following up with KWS HQ.

The information gathering stage of the planning process is also often a good time to undertake any additional individual **stakeholder consultations** that may be necessary (see section 1.4.5). These consultations should be designed to obtain specific information on particular aspects of the plan, or to provide an opportunity for stakeholders who could not be involved in any of PAF's formal participation exercises to contribute their viewpoints and ideas. These can often be incorporated with any additional fieldwork that may be needed to meet the initial information requirements.

3.3 Establishing a GIS database

Alongside the Resource Base Information Report, the other major information requirement for the planning process is a **GIS database** for the area concerned. This is required not only to illustrate key aspects of the plan, including the plan's geographic scope and threats, such as changing land uses around the PA, but also for enabling the development of key plan components, most notably the PA zonation scheme. A GIS database provides the Planning Facilitator with the information and the flexibility to refine and consolidate stakeholders' inputs into the planning process as it continues, and can also provide a powerful tool for illustrating key issues that the plan must address.

A typical GIS database is normally developed by the KWS HQ GIS Department as an Arc-view project for the PA concerned. A project should ideally include a series of "layers" (shape files) that provide information on:

- ▶ The PA boundaries
- ▶ Major vegetation types, land uses, and rivers
- ▶ Tourism accommodation facilities, including types and location
- ▶ Roads (ideally classified into all weather, seasonal and track)
- ▶ Key infrastructure, including entrance gates, airstrips, bridges, PA HQs and ranger outposts
- ▶ Other information as available and appropriate; for example: existing or potential tourist attractions, wildlife distribution and numbers; and livestock grazing or settlements in/around the PA

The availability of this information should be reviewed at an early stage in the planning process with the KWS HQ GIS Department. This will enable the timely identification of any essential information that may be missing, and hopefully leave time for it to be collected before the planning process advances too far. In addition to the information from the GIS Department, freely available data on vegetation types can be found on the Internet from Africover (see <http://www.africover.org>), and georeferenced satellite images are also now available (see <http://asterweb.jpl.nasa.gov/TerraLook.asp>).

Chapter 4. Laying the plan foundations

4.1 Rationale

This stage of the planning process focuses on laying a firm foundation for the plan based on the development of a common understanding amongst stakeholders of what the plan should be aiming to achieve. The steps involved are:

- ▶ Identifying the protected area's **exceptional resource values**, which builds understanding of the PA features that are especially important for maintaining the unique character of the area and that most need to be preserved
- ▶ Defining a **PA Purpose Statement**, which clarifies the reasons the PA exists, why it is important, and the overall goals that area managers are working towards achieving
- ▶ Identifying the **problems** that are impacting on the PA purpose and exceptional resource values, as well as the **opportunities** that can be capitalised on
- ▶ Establishing a **shared vision for the PA**, based on the foregoing steps and which describes the future desired state of the PA as seen by the stakeholders. This vision is critical to the later development of management objectives and actions that form the main pillars of the plan.

The process of developing these plan foundations mainly takes place at the **Stakeholder Planning Workshop**, and the key output at the end of this stage of the process is the **Plan Foundation Report**.

Outputs



A Plan Foundation Report containing:

- ▶ A description of the area's most important Exceptional Resource Values
- ▶ A PA Purpose Statement
- ▶ An analysis of problems and opportunities impacting the area
- ▶ A series of stakeholder-generated vision statements for the future desired state of the PA

Events



- ▶ The Stakeholder Planning Workshop (see Page 24)

4.2 Identifying the PA's Exceptional Resource Values

The PA's Exceptional Resource Values (ERVs) may be defined as *"the PA's resources and features that provide outstanding benefits to local national and international stakeholders, and that are especially important for maintaining the unique character of the area"*. A typical management plan sets out the top 15-20 ERVs that have been prioritised by stakeholders, sorted into different categories as follows:

- ▶ **Biodiversity Values**, such as rare, endemic, threatened or endangered plants, animals or habitats
- ▶ **Scenic Values**, including any features that particularly characterise the area, such as rivers, mountains or lakes
- ▶ **Social Values**, for example economic benefits, dry season water sources or catchment protection
- ▶ **Cultural Values**, notably archaeological and sacred/religious sites of importance for local communities

Table 3 below shows a typical set of ERVs and their categories for the Meru Conservation Area management plan. The ERV section of the management plan generally includes a **brief description of each ERV**, including their importance to the area, and frequently these descriptions are also accompanied by **photographs of the main ERV's**.

The process of identifying ERV's is a relatively simple one and involves brainstorming by stakeholders at the **Stakeholder Planning Workshop** followed by a ranking and sorting exercise. Further details of the key steps involved in identifying ERVs, along with suggestions for improving their identification and utility, can be found in the **Stakeholder Planning Workshop Implementation Guide** on Page 24.

Table 3: Selected stakeholder identified ERVs for the Meru Conservation Area

<i>Category</i>	<i>Exceptional Resource Value</i>
Biodiversity	▶ Black rhino
	▶ Grevy's zebra
	▶ Elephant
	▶ Mosaic of vegetation types
Scenic	▶ Undisturbed wilderness
	▶ Tana River and Adamson's Falls
Social	▶ Community consultative committees and forum
	▶ Water catchments
	▶ Ngaya Forest
Cultural	▶ Ethnic and cultural diversity
	▶ Adamson's grave and camp

4.3 Defining the PA Purpose Statement

The PA Purpose Statement is often an overlooked component of the eventual management plan, yet its development is a crucial aspect of the planning process. Defined at a relatively early stage in the planning process, it establishes a common stakeholder understanding for why the protected area has been established and is important, and what main functions the stakeholders expect it to serve. As such, it represents a cornerstone of both the planning process and the eventual plan, upon which all further plan components are based.

The Purpose Statement is developed at the Stakeholder Planning Workshop following the identification of the PA's ERVs. The statement generally consists of a short and concise sentence that describes what stakeholders perceive as the primary function of the PA, termed the **primary purpose statement**. Because of the multiple roles that PAs usually play in to-

day's society, this primary statement is often accompanied by a series of **supplementary purpose statements** that either expand on or complement the primary statement.

Box 4 below gives a series of typical PA purpose statement for various East African protected areas. One of the key challenges in developing a good PA purpose statement is to keep the statement specific to the area concerned. Ideally, it should be possible to recognise the PA concerned by reading the purpose statement – if the statement could potentially apply to any number of protected areas, it is probably too general.

Box 4. Example PA Purpose Statements for selected areas

- ✓ To protect and conserve the endemic and threatened northern wildlife species and habitats within the unique wilderness landscape of the MCA for the benefit of present and future generations (*Meru Conservation Area, Kenya*)
- ✓ To protect a sizeable Albertine Rift ecosystem and its globally-significant biodiversity, especially the chimpanzees and other primates, the endemic fish, and the mosaic of vegetation and habitat types (*Mahale Mountains National Park, Tanzania*)
- ✓ To protect and conserve the biodiversity, aesthetic, cultural and economic values of Lake Mburo National Park ecosystem and its unique wildlife, in particular Uganda's only surviving impala population (*Lake Mburo National Park, Uganda*)

The PA purpose statement is usually developed by stakeholders at the Stakeholder Planning Workshop. One way to do this is to break the workshop up into different groups, perhaps according to the type of stakeholder (e.g. tourism, local government, community) and have each group come up with their own set of purpose statements. These can then be presented back in plenary, and after some discussion, the facilitators can merge the different statements into a combined statement for stakeholder approval. The key steps involved in defining a PA purpose statement can be found in the **Stakeholder Planning Workshop Implementation Guide** on Page 24, along with suggestions for making the statement as useful and relevant as possible.

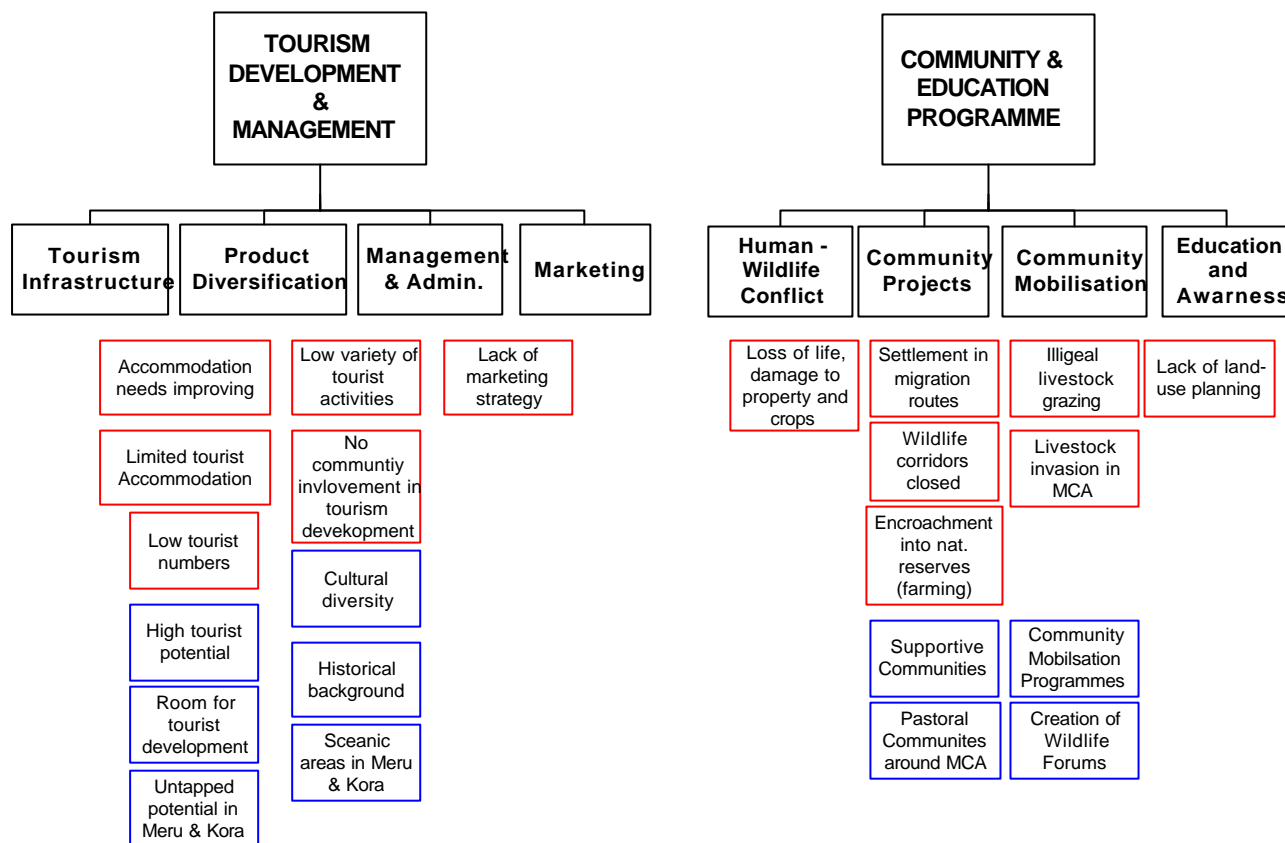
4.4 Identifying problems and opportunities

Once a general consensus has been reached on the PA's Exceptional Resource Values and Purpose Statement, the next stage in developing the plan foundations is the stakeholder identification of problems, and related unexploited opportunities, that are considered to be impacting on the maintenance of the ERV's or the achievement of the PA Purpose. This participatory identification of problems and opportunities helps to ensure that the plan responds to the stakeholders' specific concerns about and interests in the PA, and, when combined with the similar exercise undertaken earlier by the CPT (see section 2.6), provides a framework for the development of the five management programmes.

As with the identification of ERVs, the process of identifying problems and opportunities is relatively straightforward, and involves stakeholders brainstorming their ideas about problems and opportunities, which are then organised according to major "themes" under which similar problems and opportunities are grouped together (See Figure 2 overpage for an example from the MCA management plan). Visualisation techniques (see Box 3 in Chapter 2) are especially useful for this exercise as they enable problems and opportunities to be easily moved around and regrouped by the stakeholders as the process continues, and for duplicate ideas to be easily removed. If time permits, a ranking exercise can also be undertaken

to identify the most important problems and opportunities (see Box 6). Further details of the key steps involved in identifying problems and opportunities can be found in the **Stakeholder Planning Workshop Implementation Guide** on Page 24.

Figure 2: Example problem (red) and opportunity (blue) groupings from the MCA planning process



The problems and opportunities identified by both the CPT and stakeholders at the Stakeholder Workshop need to be subsequently combined and organised into a more structured and in-depth analysis of how problems and opportunities are impacting on the achievement of the stakeholder vision for the future desired state of the protected area. This vision exercise is the next step in the planning process, and is described in the following section.

4.5 Establishing a shared vision for the PA

The final stage in laying the plan foundations is the development of a stakeholder vision for the desired future state of the protected area. Establishing a clear and insightful vision of what stakeholders would like the PA to look like in the future (i.e. at the end of the plan's 10-year timeframe) not only helps build consensus and understanding on what the plan is aiming to achieve, but more importantly, also ensures that the main thrust of the plan is to proactively work towards achieving the agreed vision for the PA, rather than simply reacting to problems.

The future desired state of the PA can best be identified by developing a series of “**vision statements**” corresponding to the major themes that are identified during the problems and opportunities analysis (see previous section). Each vision statement should then be explained in greater detail by an elaboration of the principles and rationale behind the statement's development, as shown in Box 5 overpage.

Box 5. An example vision statement and accompanying problem and opportunity analysis for the Masai Mara National Reserve

Vision: The MMNR is providing a medium density primarily vehicle-based wildlife viewing visitor experience

The MMNR is currently one of the most visited protected areas in Kenya. This is primarily due to the Reserve's relatively easy accessibility and its exceptional natural resources, which most notably include: archetypal African savannah habitat ideal for vehicle-based game viewing; significant populations of all "the Big Five" species; and the annual large mammal migration. The area's recent accolade as one of the "New Seven Wonders of the World" is likely to further enhance the Reserve's popularity. Tourism management in the MMNR should recognise and capitalise on this high demand, thereby optimising the contribution of tourism to the Reserve's (and surrounding areas) conservation and management, and to the livelihoods of adjacent communities. However, in order to firmly establish the MMNR as one of the leading drivers of tourism in Kenya, parallel efforts will also be needed to ensure that the tourism product is carefully managed and maintained within clearly defined acceptable limits, and that the MMNR provides a high quality and distinctive visitor experience.






Direct Issues	Underlying Problems or Opportunities
High number of day visitors entering the MMNR	Relatively low number of beds are located within the reserve
	Ability to influence visitor numbers by adapting fee structures
Increasing/unregulated number of beds in the MMNR	No Limits of Acceptable Use on bed numbers
	Ambiguous nature of special campsites and non-permanent tented camps
Seasonal visitation patterns	Potential financial incentives for low season visitation
	Lack of all weather roads within and providing access to the Reserve

The PA vision statements are best developed as the last output of the Stakeholder Planning Workshop following on from the problems and opportunity analysis. If this is not feasible because of time constraints, they can be developed subsequently by the CPT or plan facilitators. In this case however, the vision statement will need to be circulated to key stakeholders in order to gain their feedback and endorsement, and tabled for discussion for the concerned Expert Working Group meeting (see Expert Working Group Implementation Guide on Page 33).

The visioning exercise is probably the most difficult exercise undertaken at the Stakeholder Planning Workshop, but if successfully accomplished it is a positive note on which to end the workshop. Hopefully, the foregoing exercise on identifying problems and opportunities will have helped develop an overview of the key issues impacting on the area, and provided stakeholders with the basic knowledge needed to inform the development of the vision statements. For this exercise to be successful, it is important that stakeholders take time to reflect and discuss what they feel the PA should look like in ten years time. This is normally done in breakout groups divided according to the type of stakeholder (e.g. tourism, ecology, community, etc.), each of which then develop their own set of vision statements for the themes they have been allocated.

A common difficulty when developing robust vision statements is keeping the statements specific and appropriate to the PA concerned, and avoiding writing vague statements of good intent. As a general rule, if there is very little discussion and debate about a particular vision statement, it may mean that the statement is too general.

Accurately capturing the desired future state of the protected area in a series of simple vision statements is a challenging task, and it is very likely that the outputs produced by the stakeholders at the Stakeholder Planning Workshop will be in a relatively raw form, and will need subsequent polishing and tightening by the Planning Facilitator. Once the statements are refined, the final task is to combine the vision statements with the relevant sections of the problem and opportunity analysis, reorganised into **Direct Issues** and **Underlying Problems or Opportunities**. The reorganisation of the problem and opportunity analysis is normally also done by the Planning Facilitator (and other CPT members) after the Stakeholder Workshop. An example vision statement, and associated problems and opportunities, from the Masai Mara National Reserve Management Plan (currently under development) is shown in Box 5 above.

Implementation Guide: Stakeholder Planning Workshop	
Who's involved? 	<p>▶ Around 30-40 stakeholders including representatives from researchers, conservationists, tourism industry, PA adjacent communities, senior PA staff and wardens, and members of the CPT</p>
Timing 	<p>▶ The meeting normally takes about 2 days</p>
Location 	<p>▶ If logistically feasible and it will not inhibit participation, this meeting is normally held in or near the PA concerned</p>
Key Steps Involved 	Tips for Success 
Exceptional Resource Values	
<p>i) Brainstorm potential ERVs, and group the ERVs into the four categories outlined above</p> <p>ii) Rank the ERVs using the Nominal Group Process (see Box 6 below for an explanation of this process)</p> <p>iii) Amalgamate the ERV lists and ranking, consolidating similar or closely related values²</p> <p>iv) Present final ERV listing, categorisation and ranking</p>	<p>▶ Encouraging stakeholders to keep the ERVs as tangible and as exact as possible during the identification exercise will make writing the brief descriptions much easier, and provide a better overview of the area concerned. For example:</p> <p>✓ Catchments of the Athi, Tana and Ewaso Nyiro Rivers</p> <p>✗ Water catchments</p>

² Usually undertaken by Plan Facilitator and re-presented back to stakeholders at the initial Planning Workshop for review

PA Purpose Statement	
<p>i) In breakout groups, brainstorm statements that should be included in the PA Purpose Statement</p> <p>ii) Amalgamate similar or closely related statements, and develop an overall PA Purpose Statement, and if appropriate a small number of subsidiary statements¹</p> <p>iii) Represent PA Purpose Statement and subsidiary Purpose Statements to workshop participants (if time allows)</p>	<p>► Keep the PA Purpose Statement specific to the PA concerned, bearing in mind the ERVs during the statement's development will help this. For example:</p> <p>✓ <i>“To protect and conserve the endemic and threatened northern wildlife species and habitats within the unique wilderness landscape of the MCA”</i></p> <p>✗ <i>“To protect the MCA’s biodiversity and wilderness for the benefit of local, national and international stakeholders”</i></p>
Problems and opportunities	
<p>i) In plenary, brainstorm the problems and opportunities impacting on an area</p> <p>ii) As ideas are put forward, collate similar concerns together under the major themes</p>	<p>► Try to keep the groups of problems and issues collated under each theme at a similar level, as this will help stakeholders with the next exercise. For example:</p> <p>✓ Education and awareness raising</p> <p>✓ Community benefits</p> <p>✗ Elephant damage to crops</p>
PA Vision Statements	
<p>i) In breakout groups, brainstorm ideas on how the area should be in</p> <p>ii) In the same groups try to consolidate these statements into a maximum of 5 vision</p> <p>iii) Represent the consolidated statements in plenary for wider stakeholder review and comment</p>	<p>► Organising the break out groups according to stakeholder expertise (e.g. tourism, community etc.) will help with this exercise</p> <p>► Try to make sure that statements are a future vision (a state), rather than an absence of problems or what need to be done. For example:</p> <p>✓ The PA enjoys strong support and cooperation from communities living around the area</p> <p>✗ Human wildlife conflict is solved and community benefits are increased</p>

Box 6. Prioritising Using the Nominal Group Process

The Nominal Group Process can be used to help stakeholders identify a PA's most important Exceptional Resource Values, prioritise the problems and issues affecting PA management, and identify the most appropriate management objectives and targets. The process helps ensure that **all** stakeholders have an equal voice, and are able to contribute their views and opinions into the development of these key components that form the basis of management plan development.

In order to achieve a participatory group ranking, a Group Facilitator (either in plenary or breakout groups, as appropriate) needs to take responsibility for coordinating the prioritisation exercise. Once group members have brainstormed their ideas on subjects under discussion and noted them on cards, the following steps need to be taken:

1. Number all the cards that the group has produced clearly in the corner of each card
2. All group members should spend a few minutes scanning the board to select their top five cards, **not** in any order of priority at this stage. They should write the five card numbers on a card, as follows:

Top Cards

15
22
45
3
2

3. Each group member should rank the five chosen cards in order of importance, with 5 being the most important card, and 1 being the least important. As follows:

Top Cards

15
22
45
3
2

Ranking

4
1
3
5
2

4. Enter the scores opposite the card number in the spreadsheet (see template provided on CD-ROM)
5. Add up the scores for each card
6. Establish the overall ranking for the group, with the card with the overall highest score being ranked as 1, and so on down. Only do this for just the top 10 cards
7. If the group ranking has been done in breakout groups, the scores from different groups can then be combined to produce a final ranking for each card

Chapter 5. Developing the management programmes

5.1 Rationale

This stage of the planning process focuses on developing the details of the plan's management programmes through the specific and targeted involvement of key stakeholders. The management programmes form the heart of the management plan, and set out in detail the specific goals that managers aim to achieve, and what needs to be done in order to achieve these goals. In essence they provide a work plan for the PA staff for the next 10 years. The steps involved in the development of a management programme are:

- ▶ Defining the **purpose** for each programme, which provides managers with the overall goal they are working towards
- ▶ Developing **management objectives**, which break down the purpose into several discrete elements, each of which represents a state of affairs that managers are aiming to achieve over the 10-year timeframe of the plan. All together, delivery of the management objectives will achieve the programme purpose
- ▶ Identifying the **management actions** that are needed to achieve each of the management objectives

5.1.1 The Logical Framework Approach

In the PAPF, each management programme is developed using the **Logical Framework Approach (LFA)**. Originally developed for designing and monitoring development projects, the LFA is a widely-used management tool that, if applied rigorously, provides an efficient, accountable and logical rationale for protected area management planning. Application of the LFA results in a plan that can be effectively and efficiently implemented, as well as more easily monitored and evaluated.

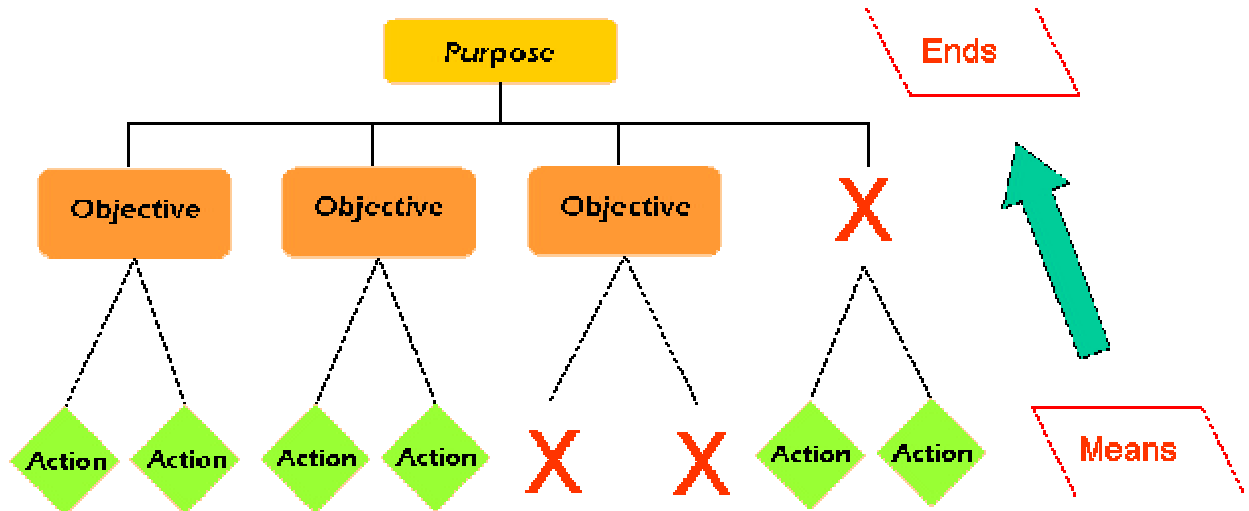
The LFA focuses on establishing **explicit and logical linkages** through a management programme's hierarchy from the programme purpose, down through the management objectives to the management actions. The application of this approach helps to develop streamlined, "*objectives-oriented*" plans, where each programme purpose, management objective, and action clearly fits into the overall plan framework, and avoids the situation illustrated in Figure 3 overpage, where objectives are defined but with no actions to achieve them, or alternatively where management actions are identified that do not contribute towards any objective (illustrated by the red crosses in the diagram). Although at first glance this may seem an obvious pitfall, unless due attention is paid to the LFA during the development of the management programmes, this situation can easily arise.

5.1.2 Management strategies




An important precursor to the development of the programme logical frameworks as defined above is the formulation of **management strategies**. These strategies are essentially the Core Planning Team's response to the stakeholder vision set out in the Plan Foundation Report (see section 4.5 above), and define what the CPT feel are the most appropriate man-

agement approaches that will contribute towards the realisation of the stakeholder vision for the PA. The development of these strategies is discussed in more detail in the following section.

Figure 3: Illustration of the logical framework approach with common pitfalls experienced in PA plans (shown with red crosses)



The process of completing the management programmes takes place at two planning events, a **CPT Meeting**, which develops the management strategies, and at **Expert Working Groups** meetings, where the management programme purposes, objectives and actions are developed. The key output at the end of this stage of the process is the **First Draft Plan**.

Outputs 	A First Draft Plan , including: <ul style="list-style-type: none"> ▶ A Plan Foundations section (see Chapter 2) ▶ A Zonation Scheme (see Chapter 5) ▶ The Management Programmes, including: <ul style="list-style-type: none"> • The programme purpose statement, and strategies • A set of management objectives (and sub-objectives if appropriate) • Subsidiary management actions to achieve each objective or sub-objective
Events 	<ul style="list-style-type: none"> ▶ A CPT meeting ▶ The Expert Working Group Meetings (see Expert Working Group Implementation Guide on Page 33)
	<ul style="list-style-type: none"> ▶ The Ecological Management Programme is developed in a slightly different way, see Chapter 6.

5.2 Identifying management strategies and issue areas

The identification of management strategies is one of the most difficult, and important, steps in the development of the management programmes. A **strategy** is essentially a method of “packaging” management interventions or approaches in order to achieve the programme purpose, and contribute towards the realisation of the stakeholder vision for the PA. Their identification also begins to establish the structural framework for the management programmes, and helps to ensure that management goals are achieved in the most efficient and effective way.

Strategy development is normally undertaken by the Planning Facilitator, and then reviewed and adapted as necessary by the CPT at the meeting that takes place prior to the Working Groups. Alternatively, if time and logistics permit, the entire CPT can work together to formulate the management strategies. Strategy development is a difficult and somewhat subjective step, and involves reviewing the vision statements and problem and opportunity analysis developed at the Stakeholder Planning Workshop (see Stakeholder Planning Workshop Implementation Guide Page 24) and then formulating a number of strategies that could be pursued to help realise the vision for the area, and ensure that its problems and opportunities are addressed. Although developed with the realisation of the vision statements in mind, as the example in Table 4 below from the Masai Mara National Reserve shows, in many cases a single strategy will not directly correspond with a single vision statement. Ideally strategies should be formulated that contribute to a number of vision statements, and that wherever possible synergise and complement each other.

Table 4: An example from the Masai Mara National Reserve planning process showing how strategies can contribute to a number of vision statements

Proposed strategy	Vision statements addressed
1. Optimising the pricing and positioning of the MMNR tourism product	<ul style="list-style-type: none"> ▶ The MMNR is providing a medium density primarily vehicle-based wildlife viewing visitor experience ▶ The MMNR visitor experience is characterised by a sense of “wild Africa” and an absence of vehicle congestion ▶ MMNR tourism complements and is integrated with tourism in surrounding areas of the Mara-Serengeti ecosystem
2. Improving standards of guiding and visitor care	<ul style="list-style-type: none"> ▶ The MMNR tourism product is of a high quality, with minimal environmental impacts ▶ The MMNR visitor experience is characterised by a sense of “wild Africa” and an absence of vehicle congestion

A good understanding and overview of the PA in question, and of the potential management tools and options available to PA managers, is essential for good strategy formulation. Participation in the Field Reconnaissance Visit (see section 3.1) will greatly assist with this. Once strategies have been developed, it is often useful to review them alongside the problems and opportunities analysis in order to double-check that all the major concerns have been addressed by at least one strategy, and that nothing has been unintentionally missed out.

Once reviewed and adapted by the CPT, an explanation of the principles and rationale for each of the strategies can be circulated to Working Group participants in advance of the

meeting. Wherever possible, each strategy should also be accompanied by a series of **management issue areas** which elaborate on some of the key problems and opportunities the strategy will address. (If appropriate, relevant information from the Information Gathering stage of the planning process, see Chapter 3, can also be incorporated into this document to inform Working Group discussions.)

5.3 Defining the programme purpose

The **programme purpose** sets out a clear and tangible goal that PA managers are aiming to achieve through plan implementation. The statement forms the highest level of the Logical Framework structure of the management programmes (see section 5.1.1), and as such provides the foundations for all other aspects of the management programmes. In contrast to the vision statements developed during the plan foundations stage of the planning process (see section 4.5), the programme purpose sets out what managers actually aim to achieve over the 10-year timeframe of the plan, rather than a more general future desired state for the protected area. Examples programme purposes from the MCA management plan are presented in Box 7 below.

Box 7. Example Programme Purposes from the MCA Management Plan

- ✓ The Meru Conservation Area is a major tourism destination in Kenya, offering a distinctive and diverse visitor experience that capitalises on the area's special wilderness values and history (*Tourism Development and Management Programme*)
- ✓ The support and participation of MCA adjacent communities in conservation and sustainable use of natural resources enhanced (*Community Partnership and Education Programme*)

The development of the programme purpose is often one of the first exercises done by participants at the Expert Working Groups. A relatively simple exercise, this normally involves the brainstorming of ideas by meeting participants, which are then crafted into a concise purpose by the Planning Facilitator. Although it is sometimes difficult to get participants started, a review of the stakeholder visions of the area, and the related problems and opportunities analysis in the Plan Foundation Report, often provides a good basis for developing the programme purpose.

One of the most common challenges in developing a good programme purpose is to keep the statement specific to the area concerned. A general indication of a good purpose is that it couldn't easily be applied to the same programme in a different PA's management plan. The key steps involved in developing the programme purpose can be found in the **Expert Working Group Implementation Guide** on Page 33.

5.4 Developing management objectives

The **management objectives** provide PA managers with clear long-term goals to work towards over the 10-year implementation period of the management plan. Each management programme typically contains around four or five objectives, which are simply short statements setting out the future state of affairs that plan implementation should result in, and which, when considered together, add up to the achievement of the programme purpose.

The management objectives are developed by the Expert Working Groups following on from the definition of the programme purpose. The objectives should be based on the corresponding strategies earlier developed by the CPT (see section 3.1.2 above), and should convert the wider strategies into more explicit and tangible management objectives to be delivered over the 10-year life of the plan (see Table 5 below). A good objective describes what managers are trying to achieve, not how this is done, and is typically stated in the past tense, which expresses what managers would like to see delivered. Box 8 below gives some examples of management objectives from various management plans. As the example shows, good objectives are flavourful and try to give the reader a clear impression of what is to be achieved – not always easy in a short statement!

Table 5: Key differences between strategies and objectives

Strategies	Objectives
► An approach to be pursued	► An achievable end result
► Do not fit into a logical framework	► A key component of a logical framework
► Timeless (i.e. could continue <i>ad infinitum</i>)	► Time-bound and specific
► Success difficult to measure	► Success is easily monitored and evaluated

The key steps involved in developing management objectives can be found in the **Expert Working Group Implementation Guide** on Page 33. If necessary to improve a programmes structure, sub-objectives can also be developed under an objective. However, the need for this may only become apparent once management actions have been identified. This is discussed in the next section.

Box 8. Example Management Objectives from a selection of PA plans

- ✓ Conservation and management of endangered and threatened species enhanced (*Tsavo Conservation Area*)
- ✓ Management and administration of tourism improved (*Tsavo Conservation Area*)
- ✓ Forests and river systems in the greater MCA landscape protected, in collaboration with other stakeholders (*Meru Conservation Area*)
- ✓ Conservation compatible community land uses and practises promoted (*Meru Conservation Area*)

5.5 Identifying management actions

The final step in developing the management programmes is the identification of the **management actions**. Management actions provide clear and precise statements of what needs to be done by PA managers in order to achieve each management objective. They are invariably time-bound (i.e. their accomplishment is in a defined and definite period of time). The number of management actions needed to achieve each objective is likely to vary considerably, but, in line with the application of the Logical Framework Approach, when an objective's subsidiary management actions are considered as a whole, they must be **sufficient to ensure the objective is achieved**.

A typical management programme sets out a series of subsidiary management actions under each objective, which are accompanied by a brief explanation and rationale for the action's inclusion in the plan and an overview of some of the key steps that are likely to be involved in its implementation. Box 9 overpage gives example management actions from a selection of

PA plans; as the examples show, management actions are always stated in the imperative, as this helps to keep them clear, concise and time-bound.

Box 9. Example Management Actions from a selection of PA plans

- ✓ Prepare an updated map for the park, and other interpretation leaflets (*draft Nairobi National Park Ecosystem Plan*)
- ✓ Install intrusion detection systems along fence line (*draft Nairobi National Park Ecosystem Plan*)
- ✓ Carry out a study to determine the carrying capacity of the rhino sanctuary and establish target population size (*Meru Conservation Area Plan*)
- ✓ Support the development of walking safaris in the Low and Wilderness Activity Zones (*Meru Conservation Area Plan*)

Participants at the Expert Working Group meetings normally develop management actions, which are then regrouped if necessary (possibly under sub-objectives) and verified and elaborated by the Planning Facilitator after the meeting. The key steps involved in identifying management actions can be found in the **Expert Working Group Implementation Guide** below, along with suggestions for making the actions as appropriate as possible.

Implementation Guide: Expert Working Groups

Who's involved?



- ▶ Each group is made up of around **10-15 participants**. Membership of each group is selected based on **impartial technical knowledge** of the area and the issues concerned, rather than on a representative basis
- ▶ For example, the Tourism Group may involve tourism investors and operators; the Ecology Group researchers and scientists; and the Community Group, selected community representatives. The PA Operations and Security Working Groups do not normally involve external stakeholders.

Timing



- ▶ **Tourism** and **Ecology** Working Groups normally have two meetings of 1 – 1.5 days each
- ▶ The **Community** Working Group is normally covered in a single 1.5 – 2 day meeting
- ▶ **PA Operations** and **Security** Working Groups are normally covered in a single 2-day meeting (participation is generally the same for both groups)

Location



- ▶ Tourism and Ecology Working Groups are often held in Nairobi to encourage participation of external stakeholders, and KWS HQ staff
- ▶ All other meetings are usually held in or around the PA itself

Key Steps Involved



Tips for Success



Programme Purpose

- | | |
|--|---|
| <ul style="list-style-type: none"> i) Review the stakeholder vision of the PA (as set out in the Plan Foundation Report) ii) Brainstorm statements that should be included in the Programme Purpose iii) Amalgamate similar or closely related statements, and develop an overall Programme Purpose³ | <ul style="list-style-type: none"> ▶ Keep the Programme Purpose clear and concise; write it in the past tense to make it appear more positive and output-oriented. For example: <ul style="list-style-type: none"> ✓ The MCA is a major tourism destination in Kenya, offering a distinctive and diverse visitor experience that capitalises on the area's special wilderness values and history ✗ Tourism is developed sustainably without impacting on the PA's natural resources |
|--|---|

³ Usually done by the Planning Facilitator and re-presented back to participants if time permits

Management Objectives	
<p>i) Review the vision and problems and opportunities analysis included in the Plan Foundation Report</p> <p>ii) Review and discuss the management strategies proposed by the CPT</p> <p>iii) As appropriate, adapt proposed strategies and reformulate into objective format</p> <p>iv) If necessary, develop additional objectives to replace rejected strategies or supplement existing ones if needed</p>	<p>► Objectives should describe the desired future condition, not how this is achieved, and should be stated in the past tense. For example:</p> <p>✓ <i>“Visitor access and use enhanced in environmentally appropriate and sustainable ways”</i></p> <p>✗ <i>“To raise awareness on the importance of environmental conservation through environmental education”</i></p>
Management Actions	
<p>i) Review the key management issue areas presented under each of the CPT proposed strategies</p> <p>ii) For each objective, brainstorm statements of management actions needed to address specific issues and problems, and/or to capitalise on opportunities</p> <p>iii) Review proposed management actions and verify they are all necessary to achieve the objective, and that together they are sufficient to achieve the objective</p>	<p>► Visualisation techniques (see Box 3 in Chapter 2) are useful for this exercise as they enable participants to review progress made, and the proposed actions to be moved around and regrouped as necessary</p> <p>► Ensure that management actions are realistic, and within the capacity of the PA management</p> <p>► Avoid writing “good intentions” that are impossible for PA managers to implement. For example:</p> <p>✓ <i>“Implement benefit sharing initiatives in collaboration with local communities and government”</i></p> <p>✗ <i>“Enhance relations with local communities through improving PA benefit sharing”</i></p>

Chapter 6. Developing the Ecological Management Programme

6.1 Rationale

Threats resulting from rapidly escalating tourism use, expanding human populations and unsustainable natural resource use around PA borders, are increasingly impacting on PAs' ecological features, and create a difficult and increasingly complex environment in which park management must operate. This situation is increasing the need for effective, and targeted, management action to ensure the continued conservation of the key ecological features of protected areas. However, a key challenge inhibiting such management action is that in the past many PA management plans have not comprehensively and accurately defined the very ecological features upon which management needs to focus, nor have the plans defined the most appropriate management interventions to pursue, within a whole host of potential interventions, to ensure the conservation of these outstanding features. This has sometimes resulted in unfocused ecological programmes that attempt to address a wide range of issues, and in weak linkages between research, monitoring and management action in many PAs.

In order to address these issues, the PAPF Ecological Management Programme is developed in a different way to the other management programmes, and adopts the Nature Conservancy's (TNC) **Conservation Action Planning** (CAP) methodology to develop an accurate definition and understanding of an area's most important ecological features, the threats to these features, and their management needs. If properly used, this methodology can help ensure ecological management interventions are optimally focused, that the ecological monitoring of a PA is developed with a clear rationale and targeting, and that linkages between PA management and applied research are strengthened. Originally developed in the United States by the TNC, the CAP methodology is now being applied in a variety of circumstances all over the world, and can easily be adapted for PA planning purposes.

The CAP methodology has three main stages: the identification of a representative selection of "**conservation targets**", which are the focus of management action; the identification of "**key ecological attributes**" (**KEA**) upon which the long-term survival of the conservation targets depends; and identifying the "**threats**" to these targets and attributes as well as management interventions to abate these threats. An additional benefit of this methodology is that the continued use of the threats and KEAs as a basis for **ecological monitoring** also provides a vital link between the components of the ecosystem that are being monitored, and the components of the ecosystem that are the focus of the management programme's objectives and actions. The reoccurring prioritisation throughout the process (during the selection of the conservation targets, the KEAs, and the identification of threats) ensures that management interventions are focusing on the most important issues, affecting the most important ecological features of a PA.

Utilising the CAP methodology, the development of an Ecological Management Programme typically involves the following stages:

- ▶ The identification of conservation targets
- ▶ The selection of the key ecological attributes
- ▶ The identification and ranking of threats

- ▶ The development of management objectives and actions
- ▶ The development of an ecological monitoring plan framework

Each of these stages is elaborated in more detail in the following sections. Further information on, and definitions of, EMP management objectives and actions can be found under sections 5.4 and 5.5. The key steps involved in using the methodology at the Ecology Working Group meetings are set out in more detail in the **Ecology Working Group Implementation Guide** at the end of this chapter.

6.2 Identifying conservation targets

The first step in the CAP methodology is the selection of the **conservation targets** for the PA in question. These targets are the ecological systems, communities and species that are identified as the foci for conservation. Together, the conservation targets are intended to represent and encapsulate the unique biodiversity contained within a PA, and the ecological components that require special management interventions (for example, particularly vulnerable plant or animal species). The underlying assumption behind establishing these conservation targets is that, provided they are truly representative, focusing efforts on their conservation will also ensure the conservation of all co-occurring ecosystem components, and therefore the maintenance of a healthy ecosystem.

Ideally the conservation targets should be selected to represent the various spatial scales and levels of biological organisation that the ecosystem functions at, from ecological systems and processes to individual species, and should correspond to the scale on which management occurs. Wherever possible the targets selected should also include the ecological components of an area that are of particular conservation importance, perform important ecological functions, or are especially susceptible to specific threats. The TNC's CAP methodology recommends that a **maximum of eight** conservation targets be selected for an area. As an example, Table 6 overpage shows the eight conservation targets selected for the Meru Conservation Area, as part of the management plan development process for that area. The key steps involved in identifying the conservation targets for an area are set out in more detail in the **Ecology Working Group Implementation Guide** at the end of this chapter.

6.3 Selecting key ecological attributes

Once the conservation targets have been selected, the next step in the CAP methodology is the selection of the **key ecological attributes** (KEAs) for each conservation target. These KEAs are factors of a conservation target's ecology that if degraded would seriously jeopardize the target's ability to survive over the long-term. The identification of the key ecological attributes for each target enables the development of a more comprehensive understanding of each conservation target, and importantly, the subsequent identification of threats impacting on the target's condition. Typical ecological attributes could be related to a target's population size or area, age structure, biological composition (e.g. sex ratios), reproduction/recruitment, ecological processes or specific habitat or connectivity requirements.

The TNC's CAP methodology recommends that around **three to five** KEAs be identified for each conservation target, rather than a large numbers of desirable or descriptive characteristics, and wherever possible attributes that are critical for long-term viability of conservation targets or that may be seriously degraded by future threats should be selected. Examples of the KEAs for each of the eight MCA conservation targets are also shown in Table 6 overpage. The key steps involved in identifying the KEAs are set out in more detail in the **Ecology Working Group Implementation Guide** at the end of this chapter.

Table 6: Conservation targets, subsidiary targets and KEAs for the Meru Conservation Area

	Conservation target	Rationale for selection	Important subsidiary targets	Key ecological attributes
Species	Black rhino	Classified as critically endangered by the IUCN. Global population declined drastically over last 30 years. MCA Population remains small and vulnerable. Population increase targets are unlikely to be met without active management.	► White rhino (both species are currently located within the same sanctuary)	► Habitat size and quality (water and forage) ► Population size, recruitment and structure ► Genetic diversity and variability
	Grevy's zebra	Endemic to northern Kenya and southern and eastern Ethiopia, classified as endangered by the IUCN. Population declined drastically over last 30 years. Current MCA population is not ecologically viable.		► Habitat size and quality (water and forage) ► Population size, recruitment and structure ► Genetic diversity and variability
	Elephant	Classified as vulnerable by the IUCN. Current population remains well below records from late 1970's. Play a key role in maintaining MCA habitats, especially grasslands. Threatened by closure of migration and dispersal routes outside MCA boundaries.	► Other species that migrate or disperse outside the MCA (e.g. buffalo, lions, zebra)	► Ngaya Forest (breeding area) ► Dispersal area (Bisanadi corridor) ► Population size, recruitment and structure ► Genetic diversity and variability
	Acacia-Combretum grassland	Particularly important for grazing species, and provides ideal habitat for game viewing. Area of grassland declined in the area over recent years.	► Burchell's zebra ► Bohor reedbuck ► Naked mole rat ► Beisa oryx	► Population size of grazing species ► Extent of grassland ► Vegetation structure and composition
	Acacia-Commiphora bushland	Important for browsing species. Threatened by livestock incursions. Dominates most of KNP and MNR, and the southwestern parts of MNP and BNR.	► Gerenuk ► Dikdik ► Lesser and Greater Kudu ► Bats	► Population size of browsing species ► Extent of bushland ► Vegetation structure and composition
	Inselbergs	Basement rock projections that occur throughout the MCA e.g. Mughwango and Leopard Rock. Contain plant communities found nowhere else in the MCA.	► Plant species such as: <i>Xerophya spekei</i> , <i>Loudetia arundinacea</i> , <i>Bulbostylis</i> and <i>Mariscus</i>	► Population size of unique plant communities
	Ngaya Forest	One of the few remaining stands of indigenous equatorial forest in Kenya. Contains a high diversity of tropical hardwood trees. An important water catchment, and dry season refuge for elephants.	► Forest primates ► Indigenous tree species ► Giant forest hog	► Forest size ► Floral composition ► Floral structure
	River Systems	Important for riverine forests and permanent swamps in Meru National Park, which provide important dry season habitats for many wildlife species. Under threat from intensifying water use and conversion of catchments.	► Swamps ► Riverine vegetation ► Bohor reedbuck ► Bird species	► Forest catchment ► River regime (flow and pattern) ► Water quality ► Riparian habitat

6.4 Identifying and ranking threats

The identification of the KEAs for each conservation target helps develop a comprehensive definition of the target, and the factors that are crucial to its long-term survival. This understanding sets the stage for the identification of **threats** impacting either directly on the conservation target, or indirectly through impacts on its KEAs. A threat is commonly defined as **any factor, resulting either directly or indirectly from human activities, that has the potential to destroy, degrade or impair a conservation target in the next 10 years**.

Threats are normally identified for each conservation target and/or KEA in turn; these are commonly brainstormed by working group participants and recorded by the Planning Facilitator. Once identified, the threats are then ranked according to the potential level/impact of damage (the **severity**) and geographic extent (**scope**) over which they are likely to occur. These scores are then consolidated to give an overall threat level. Box 10 overpage provides definitions of common threat levels, and a simple matrix that sets out how the severity and scope rankings are commonly amalgamated. An example of the threats identified for a selection of conservation targets, and their ranking, is shown in Table 7 below. The **Ecology Working Group Implementation Guide** at the end of this chapter sets out in more detail the key steps involved in identifying and ranking threats.

Table 7: Threats to example conservation targets and their ranking

Target	Threat	Severity	Scope	Ranking
Evergreen forest	Fire	High	Medium	Medium
	Exotic species	Very high	Low	Medium
	Tourism infrastructure	High	Low	Low
Elephants	Poaching	High	High	High
	Loss of habitat connectivity	Medium	High	Medium
Wild dogs	Disease	Very high	Very high	Very high
	Loss of habitat connectivity	Very high	Very high	Very High

6.5 Developing objectives and actions

The identification of threats forms the basis for the development of the **management objectives and actions** that will eventually make up the Ecological Management Programme. A commonly used visual tool to support the development of ecological management objectives is the development of a “**threat matrix**”, which provides an overview of the conservation targets, the most important threats and the how these threats are clustered or grouped. This then provides the basis for working group discussion on what the most appropriate objectives should be. An example of a threat matrix used to illustrate threat clusters is illustrated in Figure 4 below.

As illustrated in Figure 4, these management objectives are likely to either focus on abating a cross-cutting threat that impacts on a number of conservation targets, shown by the red box and arrow (such as a lack of fire management), or focus on issues specific to a single conservation target, shown by the green boxes and arrows (for example, the unique set of threats affecting a population of chimpanzees). Once the objectives have been agreed, management actions can then be defined to achieve these objectives, and to ensure that the threats are abated (see sections 5.4 and 5.5 for more detailed information and definitions of management objectives and actions).

Box 10. Defining the severity and scope of threats

Severity of Damage is the level of damage to the conservation target that can reasonably be expected within 10 years under current circumstances. This is typically divided into the following categories:

- ▶ *Very High*: The stress is likely to destroy or eliminate the conservation target over some portion of the target's occurrence in the area.
- ▶ *High*: The stress is likely to seriously degrade the conservation target over some portion of the target's occurrence in the area.
- ▶ *Medium*: The stress is likely to moderately degrade the conservation target over some portion of the target's occurrence in the area.
- ▶ *Low*: The stress is likely to only slightly impair the conservation target over some portion of the target's occurrence in the area.

Scope of Damage is the geographic scope of impact on the conservation target that can reasonably be expected within 10 years under current circumstances. This is typically divided into the following categories:

- ▶ *Very High*: The stress is likely to be very widespread or pervasive in its scope, and affect the conservation target throughout the target's occurrence in the area.
- ▶ *High*: The stress is likely to be widespread in its scope, and affect the conservation target at many of its locations in the area.
- ▶ *Medium*: The stress is likely to be localized in its scope, and affect the conservation target at some of the target's locations in the area.
- ▶ *Low*: The stress is likely to be very localized in its scope, and affect the conservation target at a limited portion of the target's location in the area.


Table 8: A matrix providing guidance for amalgamating threat rankings to give an overall threat level

Scope \ Severity	Very High	High	Medium	Low
Very High	Very High	High	Medium	Low
High	High	High	Medium	Low
Medium	Medium	Medium	Medium	Low
Low	Low	Low	Low	N/A

NB: This matrix only provides general guidance, and the overall threat levels allocated should take also take into account the opinions of working group participants.

Figure 4: Example threat matrix showing how Ecological Programme management objectives can be formulated

Target Threats	Evergreen forest	Miombo woodland	Montane vegetation	Chimpanzees
Lack of fire management	Medium	Medium	Medium	Low
Disease				High
Exotic species	Medium			
Human disturbance				Low



The following bullet points give example management objectives and actions developed in response to the threats identified in the table above (as illustrated by the green arrows).

Objective 1: Fire frequency and intensity is managed and monitored

- ▶ Action 1: Develop fire management plan
- ▶ Action 2: Implement fire mitigation measures
- ▶ Action 3: Improve fire prevention awareness

Objective 2: Risk of disease transmission and human impacts on chimpanzees minimised

- ▶ Action 1: Implement limits of acceptable use on numbers of visitors viewing chimps
- ▶ Action 2: Disseminate and enforce chimp viewing regulations
- ▶ Action 3: Establish chimp viewing booking system

Objective 3: Exotic species eradicated

- ▶ Action 1: Map type and location of invasive species
- ▶ Action 2: Identify appropriate methods of eradication
- ▶ Action 3: Implement eradication methods

The **Ecology Working Group Implementation Guide** at the end of this chapter sets out in more detail the key steps involved in developing the Ecological Management Programme's objectives and actions.

6.6 Developing the ecological monitoring plan

In addition to the management objectives and actions, the other key component of the Ecological Management Programme is the ecological monitoring plan, which is designed to monitor the health of the ecosystem. The plan will monitor both the threats to the conservation targets, and the KEAs of the conservation targets. The use of the threats and KEAs ensures that there is a direct link between the components of the ecosystem that are being monitored and the programme's management objectives and actions. As such, the ecological monitoring plan also provides a basis for both monitoring overall ecosystem health and assessing the effectiveness of management action and improving adaptive management.

An example of a framework for an ecological monitoring plan is set out in Table 9 below. The indicators of change provide the measurable entities for assessing the status and trends of the KEAs or threats to each conservation target. Ideally, the indicators selected should be easy to measure and provide an early warning to serious threats that require mitigating actions. Also outlined in a typical ecological monitoring plan is the data collection methodology,

which identifies how, when, where and who will collect the data for the indicators. This framework is normally developed by the Core Planning Team once the conservation targets, KEAs and threats have been identified by Ecological Management Working Group participants at the first meeting, and then reviewed at the second and final Working Group meeting.

Table 9: Example framework for ecological monitoring plan

KEA/ Threat	Indicator of change	Method of meas- urement	Collec- tion frequency	Data source	Respon- sibility	Data cur- rently col- lected?	Relevant Actions
KEA: Avail- able habitat and quality	Quantity and quality of preferred forage spe- cies	Transects to establish forage quan- tity, and for- age quality analysis	Bi-annual	Monitoring reports	MCA – RS	No data is available	Action 1.1.1 Action 1.1.2 Action 1.1.4
Threat: Disease (trypano- somiasis)	Incidence of trypano- somiasis pathogens in rhino blood	Blood sam- ples; Sur- veys of tsetse flies	Annual	Veterinary department disease sur- veillance reports	KWS vet department/ collaborative institutions	Baseline reports avail- able	Action 1.1.5 Action 1.1.6

Implementation Guide: Ecology Working Group

Who's involved?



- ▶ Around **10 – 15 participants** including KWS HQ and PA scientists and researchers. Additional external researchers and scientists who have a good knowledge of the area.

Timing



- ▶ This working group normally meets twice. The first meeting focuses on identifying the conservation targets, their ecological attributes and threats, and ends with the identification of management objectives. The second meeting is often slightly shorter and usually focuses on the development of management actions, and if time permits a review of the monitoring plan framework.

Location





- ▶ The Working Group meetings are often held in Nairobi to enable the participation of researchers and scientists who are either based in Nairobi, or would find it difficult to travel to the PA concerned



- ▶ Visualisation techniques (see Box 3 in Chapter 2) are especially useful for these meetings.



- ▶ Further reading: TNC (2007). Conservation Action Planning. Developing Strategies, Taking Action, and Measuring Success at Any Scale: Overview of Basic Practices. February 2007
(<http://conserveonline.org/workspaces/cbdgateway/cap>)

Key Steps Involved 	Tips for Success 
Conservation targets	
<ul style="list-style-type: none"> i) Identify the PA's viable ecological systems ii) Identify nested species and habitats "captured" within these ecological systems iii) Identify priority species/habitats that have conservation requirements not adequately captured within these categories iv) Review and where possible group ecological systems, habitats and species that co-occur in the same area, and share common ecological requirements and threats v) Select a maximum of eight conservation targets from these groupings 	<ul style="list-style-type: none"> ▶ A maximum of eight conservation targets is recommended ▶ Select conservation targets which represent the biodiversity of the site, are highly threatened, and cover the ecological hierarchy from species to systems ▶ Grouping ecological systems, habitats and species that co-occur in the same area, and share common ecological requirements and threats, will help selecting a limited number of targets
Key Ecological Attributes	
<ul style="list-style-type: none"> i) Brainstorm the key ecological attributes for each conservation target ii) Select a maximum of 3 – 5 of the most important for each target 	<ul style="list-style-type: none"> ▶ Pick factors that are critical for long-term viability of conservation targets ▶ Look for attributes that may be seriously degraded by future human-caused threats ▶ Look for a small number of key ecological attributes (e.g. 3 to 5) rather than many desirable or descriptive characteristics
Threats	
<ul style="list-style-type: none"> i) Identify major current or future threats (those likely to occur in the next 10 years) to each conservation target ii) Rank threats according to "severity" (the level of damage expected within 10 years) and "scope" (the geographic extent of impact on the conservation target) iii) Combine the scores and allocate an overall level to each threat iv) Develop a threat matrix showing the conservation targets, and the threats impacting on each target (see Figure 4 above)⁴ 	<ul style="list-style-type: none"> ▶ Remember to consider both current threats, and those that may develop within the lifetime of the plan (i.e. 10 years)

⁴ Usually carried out by the Planning Facilitator and presented back to participants if time allows. If time is short this point is a good place to end the first working group meeting.

Management objectives and actions	
<p>i) Review threat matrix showing the threats impacting on each conservation target</p> <p>ii) Develop objectives that either focus on abating a cross-cutting threat affecting a number of conservation targets, or focus on a variety of issues specific to a single conservation target</p> <p>iii) Develop management actions needed to address these threats, or to enhance conservation targets, and that will together result in the achievement of the objective</p>	<ul style="list-style-type: none"> ▶ See sections 5.4 and 5.5 above for more information on management objectives and actions ▶ See the generic Expert Working Group Implementation Guide at the end of Chapter 3 for more details on how objectives and actions are normally developed

Chapter 7. Creating the zonation scheme

7.1 Rationale

This stage of the planning process focuses on developing a PA wide zonation scheme, which, alongside the management programmes, forms the heart of a completed management plan. If properly developed and implemented, a zonation scheme can play a vital role in helping to realise the stakeholder-agreed vision on the desired future state of the area, and can be an important force supporting the achievement of the overall PA purpose, and the successful implementation the plan's management programmes. The zonation scheme complements the plan's management programmes by providing a basis for the spatial management of the PA, and enabling different management regimes, as well as management and administrative arrangements, to be applied to different parts (zones) of the PA. Typical uses of a zonation scheme could include, for example, fostering better patterns of visitor use throughout an area, or providing the framework for the decentralisation of an area's management.

Although many zonation schemes are likely to be primarily concerned with managing tourism investment and use, the particular types of zones needed for an area will be contingent on the issues and opportunities in the area concerned. For example, in the Meru Conservation Area Plan, in addition to "visitor use zones" that aim to optimise visitation patterns across the area, "management zones" are also defined to enable the decentralisation of the area's management. In other areas, zones may be need to define areas that communities are allowed access to, or, as in the case of the Tsavo Management Plan an "influence zone" may be defined that sets out the area that KWS activities should take place within beyond the PA boundaries. Depending on the issues impacting on an area, the steps involved in the development of a typical zonation scheme are likely to include:

- ▶ Developing **visitor use zones**, which enable the degree and type of visitor use to be managed across the PA. This involves:
 - **Identifying and describing the zones** that the PA will be divided into
 - Specifying **visitor activity prescriptions**
 - Specifying **accommodation prescriptions**
 - Specifying **bed capacity prescriptions** (based on clearly defined and defensible "**Limits of Acceptable Use**")
- ▶ Defining **other types of zones** that may be necessary to help achieve the PA purpose statement or address key issues impacting on the area, this may include:
 - Defining **management zones** that support the decentralisation of the area's management and administration
 - Delineating **influence zones**, which define the area that KWS activities take place in beyond the PA

The process of developing the zonation scheme normally takes place during the relevant **Expert Working Groups** (e.g. visitor use zones at the tourism meetings; management zones at the PA operations and security meeting). This stage of the planning process also involves a considerable amount of work by the Planning Facilitator. Once the various aspects

of the scheme are complete, they are consolidated into a single chapter of the finalised management plan.

Outputs



A Zonation Scheme containing, **as necessary**:

- ▶ An overview of the rationale for the visitor use zones developed; detailed descriptions of the extent, borders and key features of each zone; prescriptions for each zone typically relating to visitor activities, accommodation facility size, and bed capacity
- ▶ An overview of other aspects of the zonation scheme (e.g. management zones, influence zones etc.) including the rationale behind their development, descriptions of the area the zones cover, and the elaboration of any other key rules/regulations, management and administration arrangements etc. as appropriate

Events



- ▶ Relevant Expert Working Group meetings, contingent on the aspect of the zonation scheme being developed

7.2 Developing visitor use zones

Visitor use zones provide a framework for reconciling the twin management needs of protecting the PA's natural resources and regulating and promoting visitor use. By identifying areas where similar types and levels of use and management emphasis are appropriate, visitor use zones enable the degree and type of visitor use to be managed spatially over the protected area. The aims of a visitor use zone will be contingent on the issues impacting on the area concerned, and the stakeholder-agreed desired future state of the area. For example, in some highly used areas, the scheme may need to focus on developing a more even pattern of visitor use by regulating and restricting use in heavily used areas, and/or providing incentives for investment and use in under-utilised areas. In less visited areas, a scheme may aim to promote the development of tourism, within clearly defined and agreed limits.

A typical visitor use zonation scheme begins by providing an overview of the scheme, an introduction to the rationale and principles that have guided the scheme's development, and a summary of its key aims and how these will be achieved. This is followed by a detailed **description of each zone**, and **prescriptions** on: the **visitor activities** permitted; the type and size of **visitor accommodation facilities** allowed in the zone; and **bed capacity** prescriptions that set out the number of beds that can be developed in the zone over the 10-year implantation period of the plan. Each of these aspects is described in more detail in the following sections.

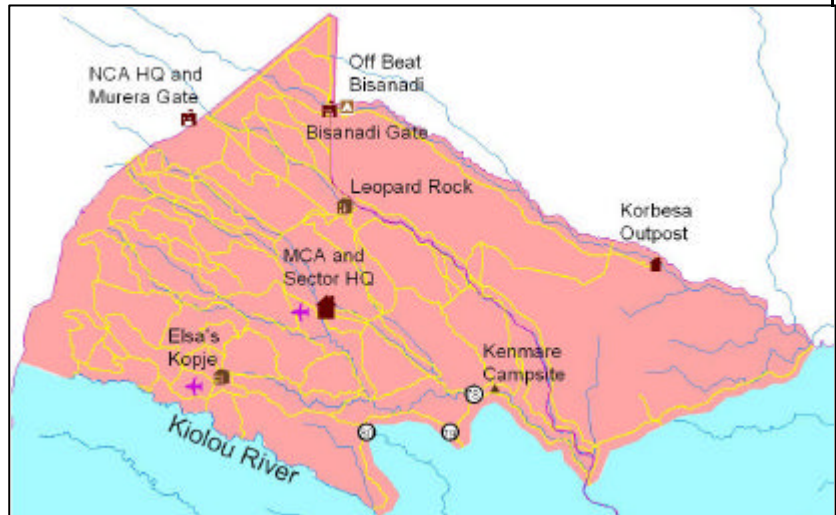
7.2.1 Identifying and describing the zones

As discussed above, following on from the overview and introduction to the overall visitor use zonation applied to a PA, a typical scheme contains a more detailed elaboration of each individual zone. Each of these sections begins with an explanation of the rationale behind the particular zone's creation and a detailed description of the area the zone covers, ideally giving an indication of its geographical extent and/or the percentage of the PA it represents. This description should also include details of the key geographical features of the zone, any important PA management infrastructure it contains, and, importantly, a clear and exact as possible description of the zone's borders. Wherever possible this detailed description should be accompanied by a detailed map of the zone, clearly showing the area the zone covers,

and where its borders lie. Box 11 below shows a zone description and accompanying map taken from the MCA management plan.

Box 11. The Meru Conservation Area High Use Zone description

This zone comprises the north-west section of Meru National Park and the adjoining northern part of Bisanadi National Reserve, and covers 12% of the MCA. The zone contains all permanent tourism facilities, the most extensive network of game-viewing circuits in the MCA (around 528km), the current rhino sanctuary, and the MCA Headquarters. The zone is bordered by the Kiolou



River along its southern edge; the zone's eastern border is formed by the road beginning at the Kiolou River drift. From this site the zone border follows the road alongside the Rojerwero River to the boundary of Bisanadi NR, and then continues along the straight road to the external boundary of the reserve.

The identification of visitor use zones normally begins with participants at the Tourism Working Group meeting. As a first step in the process, participants at this meeting typically focus on dividing up the PA concerned into a number of zones based on current patterns of visitation and use, which gives a general overview of the current situation, and, bearing in mind the agreed desired future state for the area, provides a basis for the subsequent development of prescriptions (discussed in the following sections). Other concerns such as particularly ecologically sensitive areas (e.g. riverine forest) should also if possible be incorporated into this exercise.

One of the best ways to get participants involved in identifying what zones an area should contain is to use large maps of the area that proposed zones can be drawn on at the meeting. This provides a good visual aid to this step in the planning process, and helps participants to clearly see what is being put forward. As a general rule, the more complex a zoning scheme, the more difficult it will be to implement and for PA managers and stakeholders to understand, and simple schemes with 3-4 zone types are more likely to be successful. In addition, wherever possible, zone boundaries should be aligned with physical features, such as roads and rivers, to ease zone identification on the ground.

7.2.2 Specifying visitor activity prescriptions

Visitor activity prescriptions set out clearly and concisely what activities are permitted in a particular zone, and specific rules or regulations that are associated with each activity. Although appearing relatively straightforward, varying the type of activities permitted in different zones within a single PA can play an important role in fostering the desired type of tourism experience in each zone. For example, if restrictions on visitor activities are relaxed in less

desirable areas, this can both provide visitors and investors with an incentive for using these areas, and help develop a more even pattern of visitor use over an entire PA.

The visitor use prescriptions for a particular zone are normally included immediately after the general zone description. This section typically provides an overview of the type of tourism experience the visitor use zone will offer, and the rationale behind this vision. This is normally followed by a table or box that sets out the particular activities allowed in the zone, and any specific rules or regulations that apply to these activities. Examples of visitor use activities from the MCA Zonation Scheme are presented in Table 10 below.

Table 10: Visitor activity prescriptions for the Meru Conservation Area Low Use Zone

<ul style="list-style-type: none"> ▶ Game drives ▶ Night game drives. Along specified routes agreed between the operator and MCA management. Red/pink filters must be placed over spotlights. Subject to security considerations. ▶ Short walks. Along specified routes agreed between operator and MCA management. No overnighting, except walks between existing permanent facilities (permanent tented camps or starbed camps). ▶ Catch and release fishing. Along designated lengths of river agreed between operator and MCA management. All fish caught to be released at same location. ▶ Rafting/boating. On the Tana River. ▶ Walking safaris. Along specified routes between permanent and/or temporary camps agreed between operator and MCA management.

The development of visitor use prescriptions normally follows on from the identification of the visitor use zones at the Tourism Working Group Meeting. Use of visualisation techniques (see Box 3 in Chapter 2) is useful for this exercise as it enables the activities for a particular zone to be grouped together, and provides participants with an instant overview of the proposals. These proposals are likely to need further refinement by the Planning Facilitator following on from the meeting, not least to make sure that they are in line with KWS policy.

7.2.3 Specifying visitor accommodation prescriptions

The visitor accommodation prescriptions specify the different types of visitor facilities permitted in each zone (e.g. lodge, permanent tented camp, etc.), and the maximum number of beds that each of these facilities is allowed. This is an important complement to the visitor activity prescriptions, as the nature of visitor accommodation facilities is also a major aspect of tourism use that impacts on the visitor experience. These prescriptions can be also used to support the desired pattern of visitor use in the area; for example, smaller maximum sizes for facilities will allow more facilities and help disperse use over the entire zone, while larger facilities will help concentrate impacts in one particular location. Table 11 overpage gives example visitor accommodation facility prescriptions taken from the MCA plan.

Defining visitor accommodation prescriptions is normally the last element of the visitor use zonation scheme developed by participants at the first Tourism Working Group meeting. As with visitor activity prescriptions, ideas on facility types permitted for each zone are normally brainstormed by participants, followed by discussion on what their maximum size should be. Again this may need further refinement and consolidation by the Planning Facilitator following the meeting, and verification to ensure that proposals are in line with accommodation definitions set out in the KWS Facilities Development Procedures (included on the CD-ROM accompanying this manual).

Table 11: Visitor accommodation prescriptions from for the Meru Conservation Area Low Use Zone

<i>Facility type</i>	<i>Maximum size</i>
► Eco-lodges	30 beds
► Permanent tented camps	30 beds
► Special campsites	10 beds
► Starbed camps	10 beds

7.2.4 Defining Limits of Acceptable Use and bed capacity prescriptions

The bed capacity prescriptions define the total number of visitor beds that are allowed in a particular zone for the 10-year duration period of the plan. They are often one of the most important, and most contentious aspects of the zonation scheme, and indeed the entire plan, and it is therefore vital for the success of the plan to ensure that the prescriptions developed are appropriate, and in line with the agreed vision for the PA. Due to the high level of stakeholder scrutiny that these prescriptions are likely to be subjected to, it is important that, whenever possible, these prescriptions are both rationally defined and defensible, in order that they can withstand development pressures that may arise during the lifespan of the plan.

Ideally zonal bed capacity prescriptions should be reached through an understanding of visitor impacts on the ecological features of the zone. However, developing this knowledge can take many years, and involve extensive ecological monitoring. This type of information is rarely available to management planners, and a more practical and immediate basis for developing these prescriptions is often required. One alternative method for achieving this has been applied in the Meru Conservation Area. In this case, a simple model using a proxy for measuring the quality of visitor experience was used to develop **Limits of Acceptable Use (LAU)** on the total numbers of visitors that would be acceptable in a particular zone. These figures were then refined (taking into account movements between zones and occupancy rates) to give an estimate of the total number of beds each zone should contain in order to preserve the desired quality of visitor experience. The model as applied to the MCA is explained in more detail in Box 12 below.

Box 12. Limits of Acceptable Use in the Meru Conservation Area

The MCA plan develops Limits of Acceptable Use for zonal visitor numbers based on the **quality of the visitor experience**, and using the “**number of encounters with other tourism vehicles per hour**” as a proxy. The assumption made is that visitor experience in any particular zone, especially in a PA offering an exclusive wilderness experience such as the MCA, is determined by the sense of solitude that visitors experience, which is in turn largely influenced by the number of encounters that a visitor has with other visitors during game drives; i.e. the more encounters there are, the lower the sense of solitude and the poorer the overall visitor experience.

The table below provides an overview of a simple model developed to determine the LAU on visitor numbers in two of the MCA's zones – the High Use and Low Use Zones. As shown in the table, the number of encounters per hour that tourism stakeholders agreed is appropriate

in the High Use Zone is 2.5, while for the Low Use Zone it is 1.25. That is, the High Use Zone visitor experience will feature an encounter with another tourism vehicle approximately every 25 minutes, while the Low Use Zone experience will feature an encounter with another vehicle approximately every 50 minutes.

The table below also shows the other assumptions that have been figured into the model to calculate the LAU on visitor numbers associated with these encounter rates, which include the average speed of tourist vehicles, the number of clients in each vehicle, and the length of suitable tourist road in the relevant zone. The latter figure was worked out from existing GIS roads data, selecting only those roads that are considered suitable for tourist use.

There are several obvious weaknesses of this model. For example, the assumption that tour drivers are choosing to distribute themselves reasonably evenly throughout the zone rather than at viewing hotspots or near to lodges is a large one. Ultimately, however PA managers can do little to control the visitor experience if tour drivers and the visitors themselves choose to congregate around, say, a lion kill. In these circumstances, the driver and visitors are taking a conscious decision to forego solitude in favour of an animal sighting.

Nonetheless, the encounter rates and the values of the various assumptions of the MCA model (e.g. speed of travel and number of passengers per vehicle) were chosen on a conservative basis to help compensate for the potential weaknesses of the model. As a result, the final LAU calculated by the model are considered as underestimates of the total number of visitors that the zone can reasonably support, while maintaining the overall visitor experience expected for the zone.

Model for determining Limits of Acceptable Use on visitor numbers in the High and Low Use Zones

	<i>Parameter</i>	<i>High Use</i>	<i>Low Use</i>
Assumptions	Number of vehicle encounters accepted in game drive (per hour)	3.0	1.5
	Average speed (km per hour)	20	20
	Average number of clients per vehicle	4	4
	Available tourism road in zone (km)	528	530
	Percentage spillover to neighbouring zone	15%	50%
	<i>Visitors entering zone from neighbouring zone</i>	84	39
	<i>Visitors exiting zone to neighbouring zone</i>	39	84
LAU	Number of vehicles per km	0.150	0.075
	LAU on total visitors in zone (per day)	317	159
	LAU on overnight visitors in zone (per day)	271	204

As the table above shows, the model provides the following **LAU for total visitor numbers** in the two zones: 317 visitors in the High Use Zone and 159 visitors in the Low-Use Zone. However, it is anticipated that there will be visitor movement between neighbouring zones, especially from the Low Use Zone to the High Use Zone, where wildlife viewing is better. Therefore, the model also calculates adjusted **LAU for overnight visitor numbers** for each zone. This is the acceptable number of visitors staying within any particular zone overnight, which, when considered in conjunction with the estimated movements of visitors into and out

of the zone, will ensure that the LAU for total visitor numbers in the zone are not exceeded. The LAU on total overnight visitor number are: **271 visitors in the High Use Zone** and **204 visitors in the Low Use Zone**. These LAU on overnight visitors were then used for developing prescriptions on the number of beds that can be developed within each of these zones for the 10-year duration of the plan.

Although, the MCA model is far from perfect, and only provides general figures to guide the subsequent development of bed capacity prescriptions, it does provide a transparent method for arriving at bed capacity prescriptions, and may help ensure they can respond to development pressures that may arise during the lifespan of the plan. However, the model presented above has been developed specifically for the MCA, which is unique in many respects (e.g. no visitor accommodation outside the PAs, a good network of game viewing roads in the High Use Zone, low visibility between tracks, and relatively low numbers of current visitors), and although the measurement of quality of visitor experience may remain appropriate, the model is likely to need significant adaptation if it is to be used in other PAs. This process of adaptation is already underway, and more sophisticated versions of the model, or alternative models suiting alternative PA situations, will be included in future versions of this manual.

In the meantime, it is highly recommended that whenever possible attempts should be made to provide a robust basis for the development of visitor LAU, either through the adaptation of the MCA model, or the development of new alternative but equally robust and transparent mechanisms. The MCA model is provided in an Excel spreadsheet on the CD-ROM accompanying this manual as a potential basis for its adaptation to other areas.

Once the LAU have been calculated, these can then be converted into bed capacity prescriptions. This involves calculating the existing number of beds in the zone and incorporating estimated high season occupancy rates to give an average number of visitors in the zone during the peak season. This figure can then be subtracted from the overall LAU to give the estimated number of additional visitors the zone can accommodate. When combined with estimated occupancies for new accommodation facilities, this gives the final prescription on the addition number of beds the zone can accommodate. This is illustrated in Table 12 below using an example from the MCA management plan.

Table 12: High Use Zone: Bed capacity prescriptions

	Visitors	Beds
LAU on overnight visitors in HUZ per day (see Box above)	271	461
<i>Made up of:</i>		
Existing accommodation	147	248
New Ecolodges & Permanent Tented Camps (based on 60% occupancy)	116	193
New Special Campsites (2 sites in Bisanadi NR, based on 40% occupancy)	8	20

Although a somewhat complicated stage in the planning process, the only commonly alternative method to the modelling approach for developing LAU is to base the bed capacity prescriptions on the recommendations of key stakeholders, such as current tourism industry investors and operators and PA managers. Although this has sufficed in many cases, the prescriptions derived from this more subjective process are likely to vary considerably depending on the stakeholders consulted. In addition although the model-based approach is by no means perfect, experience has shown that in some cases consultation-based prescriptions

have been disregarded once key stakeholders, such as wardens or investors, have moved on from the area, and/or political or development pressures have increased.

The development of LAU can take a significant amount of work, which is generally done by the Planning Facilitator. Once prepared, these LAU are then presented to participants at the second Tourism Working Group meeting, along with the rest of the visitor zonation scheme for review and comment. The Ecology Working Group should also have the opportunity to review the scheme at an early stage in its development to ensure it does not compromise the area's ecological integrity.

7.3 Defining other types of zones

As discussed above, although many zonation schemes are likely to be primarily concerned with managing tourism use, the particular types of zones needed for an area will be contingent on the issues and opportunities in the area concerned. The following sections provide a brief overview of two other types of zones that have been included in recent PA management plans: **management zones**; and **influence zone(s)**.

This is by no means an exclusive list and other zones types may be more appropriate for a particular PA. This could involve for example “multiple use zones” where communities could be allowed access to specific resources, or “special protection zones” where all use except ecological research and monitoring is proscribed.

7.3.1 Defining management zones

Management zones are generally developed to facilitate the decentralisation of a PAs management to more manageable units. To date this has only been applied by KWS in the larger PAs or conservation areas; however, it could potentially equally be applied in some smaller areas to encourage the dispersal of management infrastructure and presence over the entire area.

A typical management zonation scheme divides the area into a small number of zones, and sets out the management arrangements for each area. This may include the zone headquarters, sub-headquarters (if appropriate), and other PA infrastructure, such as ranger posts that fall into and report the various zone headquarters.

If needed, this aspect of a zonation scheme is usually developed at the Protected Area Operations and Security Working Groups. However, in order to reduce the complexity of the overall zonation scheme, and enhance accountability for and ease of implementation, it is a good idea to try and align both management and visitor use zone boundaries wherever possible.

7.3.2 Delineating influence zones

Although not always included in a management plan, it is sometimes helpful to delineate “**influence zones**” beyond the boundaries of the PA where KWS or its partners in the management plan will implement various activities. These activities are usually limited to community liaison and education activities, measures to ensure the preservation of the core PA's ecological integrity, and security patrols. The area this zone covers will depend on the issues impacting on the PA concerned is likely to vary significantly, if for example, as is often the case, water supplies to the core PA are an issue, activities may take place in catchment areas some distance from the PA itself.

This section of the zonation scheme is normally purely descriptive and should not contain any prescriptions, as KWS does not have jurisdiction over the area, or the ability to ensure that they are enforced. In addition, although this section could provide a brief description of KWS activities that will take place in this zone, it should not include any management actions that are not included in the management programmes, and cross references to the relevant sections should be provided wherever they are mentioned.

Chapter 8. Completing the plan

8.1 Rationale

The final stage of the planning process aims to ensure the relevance and appropriateness of the plan contents, and increase stakeholder awareness and support for its implementation. This is achieved by providing opportunities for a broad spectrum of stakeholders to review and recommend amendments to the plan. Once reviewed by stakeholders, the remaining components of a management plan are then completed, and the Final Plan formally approved by the plan owners. The key steps involved in completing the plan are:

- ▶ Gaining **plan owner** and **stakeholder endorsement**, which is achieved through two planning events: the Plan Endorsement Meeting; and the Stakeholder Presentation Workshop
- ▶ Creating the **monitoring plan**, which provides a framework for assessing the impacts (both positive and negative) of plan implementation
- ▶ Developing the **3-year activity plans**, which provide the important bridge between the 10-year aspects of the plan and the annual work planning by PA managers
- ▶ Obtaining formal **plan approval** by the KWS Director, Board of Trustees, and any other plan owners

The completion of the management plan normally takes place over three meetings: the **Plan Endorsement Meeting**; the **Stakeholder Presentation Workshop**; and the **CPT Activity Plan Development Meeting**. The key output at the end of this stage of the process is the **Final Plan**.

Outputs



A **Final Plan** including (see section 1.3 for an overview of final plan contents):

- ▶ A signed Plan Approval page
- ▶ The Plan Foundations section
- ▶ The Zonation Scheme
- ▶ The Management Programmes, including a 3-Year Activity Plan for each programme
- ▶ A plan monitoring framework

Events



- ▶ Plan Endorsement Meeting
- ▶ Stakeholder Presentation Workshop
- ▶ CPT Activity Plan Development Meeting

8.2 Gaining plan owner and stakeholder endorsement

By this stage in the planning process, the principal components of the management plan are complete and have been consolidated into the First Draft Plan. This provides an ideal opportunity for stakeholders to review the plan, ensure it reflects the recommendations that they have put forward throughout the planning process, and that the plan is appropriate and responds to the key issues impacting on the area. This is normally achieved through two plan-

ning events: a **Plan Endorsement Meeting**, which gives the **plan owners** (see section 2.3.3) an opportunity to review the plan contents and recommend any changes that might be needed, followed by a **Stakeholder Presentation Workshop** that provides the opportunity for **all stakeholders** to review the contents of the plan. Both these events are briefly outlined in the following paragraphs:

8.2.1 Plan Endorsement Meeting

The Plan Endorsement Meeting provides the plan owners with an early opportunity to review selected features of the plan that require the approval and endorsement by the plan owners before it is presented to external stakeholders. This is likely to included plan features that are considered especially important for plan success, require follow up action by KWS HQ or other plan owners, have implications for KWS policies, or that have significant budget implications.

This meeting is normally kept relatively short (around half a day) in order to enable participation by senior KWS HQ staff, including the Director and Deputy Directors, and other relevant heads of departments. In order to ensure the efficiency of the meeting, a **Plan Endorsement Document** outlining the key issues to be discussed, and the key decisions that are needed by the plan owners in order to proceed with plan finalisation, is normally prepared in advance and circulated to participants before the meeting. This document then forms the basis of the meeting discussions.

The structure of the Plan Endorsement Document follows that of the draft management plan, and the issues are addressed in turn as they arise in the plan itself. In order to make the best use of participants' time, it is a good idea to keep the issues raised to a minimum, and only include those issues that require high-level review and endorsement. An example of how this document is typically structured is shown in Table 13 below.

Table 13: An example section of the Plan Endorsement Document from the MCA planning process

Plan Feature	Brief Explanation	Management Decision
Management of the Meru Conservation Area as a single management unit and command structure (see draft plan p5)	Description <ul style="list-style-type: none"> ▶ The four PAs that make up the MCA will be administered and managed by KWS as a <u>single unit</u> (divided into "management sectors", see Figure 14, p101) ▶ There will be a <u>common visitor entry policy</u> operating between the MCA's constituent protected areas 	<ul style="list-style-type: none"> ▶ The MCA will be administered and managed by KWS as a single unit
	Benefits <ul style="list-style-type: none"> ▶ <u>Enhanced tourism opportunities</u> through the promotion of the MCA as a single destination offering a variety of experiences ▶ <u>Enhanced ecological management</u> due to the four constituent areas' high degree of connectivity ▶ <u>Improved coordination of security operations</u> across the entire area ▶ <u>Economies of scale on protected area management costs</u> Follow-up Action Needed from HQ <ul style="list-style-type: none"> ▶ Approval of KWS – CC MoU ▶ Harmonisation of entry fees between the four areas 	<p>Approved <input type="checkbox"/></p> <p>Rejected <input type="checkbox"/></p> <p>Comments:</p>

As the example above shows, the first column indicates the feature of the plan under discussion, the second column provides information on the issue, the potential benefits accruing from its implementation, and any follow-up actions needed by KWS HQ or other plan owners. The final column summarises the decision to be made at the Plan Endorsement Meeting. At the meeting these issues are normally discussed in turn and the plan subsequently updated to reflect these discussions before the Plan Presentation Workshop. A template for the Plan Endorsement Document is provided on the CD-ROM accompanying this manual.

8.2.2 Plan Presentation Workshop

Once the plan owners have reviewed the contents of the management plan, it is ready for presentation to external stakeholders. This normally takes place through a Plan Presentation Workshop, which provides the opportunity for stakeholders to review, comment on, and endorse the final contents of the management plan. This workshop normally involves around 30 - 40 stakeholders, which should include participants from the Stakeholder Planning Workshop, and members of all the Working Groups. This workshop is more likely to take place in Nairobi to encourage broader participation, but could also be held in or around the PA if logistically feasible. It is normally possible to complete the workshop in a single day.

In contrast to the previous stakeholder workshop, this meeting is essentially a presentation of the key plan contents. A typical meeting begins with an overview of the Plan Foundations section, which is often followed by a presentation on the Zonation Scheme. Each management programme is then presented in turn, and stakeholder comments noted and where appropriate incorporated into the plan after the meeting. In some cases it may be best to present certain aspects of the plan first, for example, the Zonation Scheme and Tourism Management Programme are often presented first to enable tourism stakeholders to leave part way through the workshop if necessary. Ideally, the warden responsible for the implementation of each programme should make the relevant presentation to the meeting. An example workshop agenda, and PowerPoint presentation and template are included on the CD-ROM accompanying this manual.

8.3 Creating the monitoring plan framework

The **plan monitoring framework** sets out the parameters that can be used to assess how successful the management plan has been in achieving its objectives. By providing guidance on what needs to be assessed, the plan monitoring framework helps ensure that the overall benefits from plan implementation are maximised, and any negative impacts are mitigated. The monitoring framework also provides the basis for informing any management adaptations needed as plan implementation continues.

A typical plan monitoring framework sets out the desired impact of each programme's objectives (and/or sub-objectives), and any potential negative impacts that may occur. The framework also includes easily measurable and quantifiable indicators for assessing these impacts, and potential sources of the information required. An example section of a monitoring plan framework from the MCA management plan is set out in Table 14 overpage.

As the example above shows, the plan monitoring framework focuses on monitoring the impacts of plan implementation, and not implementation itself (this is covered by the 3-year activity plans, see next section). The development of the plan monitoring framework is a relatively straightforward task and is normally carried out by the Planning Facilitator after the above planning events, with assistance from other CPT members if necessary. Along with making sure that the monitoring framework is focused on impacts, making sure the indicators

are easily measurable and, wherever possible, use information that is already being collected, will enhance the development of a successful framework.

Table 14: An example section of the MCA Tourism Development and Management Programme Monitoring Plan

Objective	Potential Impacts (Positive and Negative)	Verifiable Indicator	Sources and means of verification
Objective 1: The MCA tourism product expanded and diversified	Increased use of the Low and Wilderness Activity Zones	Percentage of MCA visitors staying overnight in the LUZ and WAZ	KWS HQ visitor database and concession holder records
	Increased length of stay in the MCA	Average number of nights spent in the MCA per visitor	Concession holder records and bednight fees
	Visitor security incidents as a result of using remote parts of the MCA	Number of visitor safety and security incidents in LUZ and WAZ	Incident reports
	Environmental degradation from new tourist activities and/or supporting infrastructure	Evidence of pollution/litter or habitat degradation at sites where activities or infrastructure are located	Targeted inspections by MCA staff

8.4 Developing the 3-year activity plans

The final stage in the completion of the plan's management programmes is the development of a **3-year activity plan** for each programme. These activity plans are designed to provide the basis for annual work planning by PA managers, and form the vital link between the management plan's 10-year objectives and actions and the day-to-day management activities in the PA. The plans also provide PA managers with a clear and consolidated summary of management actions to be carried out under each programme, who is responsible for implementing them, and when this should take place

A typical activity plan breaks down a programme's individual management actions into a series of tangible management activities, sets out the timeframe for their implementation, and allocates responsibility for their completion. In addition, each activity plan sets out specific and timebound implementation "*milestones*" that management aims to achieve for each action. An example section of a 3-year activity plan is shown in Table 15 overpage.

Each activity plan is normally elaborated by the CPT at a meeting specially convened for this purpose. This meeting also gives the CPT a final opportunity to review the entire contents of the plan, and make any final alternations they feel are necessary. This is often done with the whole team working together using a pre-prepared Excel template that sets out each programme's objectives and subsidiary management actions, with blank spaces left for the insertion of management activities. A template is provided for this purpose on the CD-ROM accompanying this manual. An equally viable alternative technique is the use of cards and pin boards (as described in Box 3, Chapter 2), with the activities defined under each action typed up following the meeting.

Table 15: An example section of a 3-year activity plan from the MCA Community Partnership and Education Programme

Management Action and Activities	Persons Responsible	Timeframe												Milestones
		FY 2007-08				FY 2008-09				FY 2009-10				
		1	2	3	4	1	2	3	4	1	2	3	4	
Objective 1: PA-community communication and collaboration mechanisms improved														
1.1 Strengthen and support PA-community consultation mechanisms													All CCCs and CCFs are reconstituted by end of FY08-09 and have met at least once	
1.1.1 Hold discussions with community leaders and decision makers about requirements for making CCC and CCF functional	CW, CC Clerks, SW-ICC, WK													
1.1.2 Develop simple action plan for reconstituting CCC and CCF and agree with key decision makers	As above													
1.1.3 Incorporate mechanisms for ensuring gender balance and participation of youth and marginalised community members in community forums	As above													
1.1.4 Assist CCCs and CCF in establishing governance systems, election procedures and byelaws	As above													
1.1.5 Participate in CCC and CCF meetings and promote linkages between the community forums and wider community	As above													

As Table 15 above shows, the Logical Framework Approach, introduced during the development of objectives and actions, continues to be applied at this level of the management programmes. As such, it is important to ensure that the activities defined are set out in a logical order, and are sufficient to ensure the action is completed. A key challenge in defining management activities is to keep them **specific, distinct** and **realistic**. A useful trick for helping with this is to ensure that all the activities that are defined pass the “*Monday morning test*”; that is a PA manager should actually be able to go out on a Monday morning and implement the action. For example “*Place permanent beacons along PA boundary*” rather than “*Ensure PA boundary is clearly visible on the ground*”.

8.5 Obtaining plan approval

Once the plan monitoring and activity plans have been developed, the management plan is essentially complete, and is now ready for formal approval by the KWS Director and Board of Trustees, and by any other plan owners (e.g. county councils, Kenya Forest Service, etc.). Due to the extensive opportunities for stakeholders to contribute to plan development, inclusion of all key stakeholders on the CPT, and opportunities for stakeholder and plan owner review of the Draft Management Plan, this step should hopefully be little more than a formality.

A plan is normally formally approved at a KWS Board of Trustees meeting, and a brief presentation to the Trustees by the Planning Facilitator or CPT leader may be necessary. If there

are other plan owners, similar presentations may also be necessary. If plan owners include county councils, the plan should be formally approved at a full council meeting, so that the approval of the plan is formally recorded in the council meeting minutes. Once the plan has been approved and the Plan Approval Page signed by the plan owners, it is ready for publishing. Then, of course, the real work begins...

Chapter 9. Operationalising the plan

This chapter of the PAPF manual is currently under development.

This is the next major stage in the development of the PAPF, and focuses on enhancing linkages with PA management procedures and protocol, and the implementation of the management plans developed. Measures to address these issues will be piloted in the Meru and Tsavo CAs over the next 12 months, and will be incorporated into subsequent updates of the PAPF manual. When completed, this chapter is likely to cover the following aspects:

- ▶ Annual operations planning (including rolling forward of 3-year Activity Plans)
- ▶ Annual corporate budgeting
- ▶ Plan impact monitoring and reporting
- ▶ Mid-term Review of plan (5 years)
- ▶ Ecological monitoring