

Babati District Council
Burunge Pilot Wildlife Management
Area



Resource Management Zone
Plan
2005 - 2010

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ACRONYMS USED IN THE REPORT

AA.....	<i>Authorised Association</i>
AOPB.....	<i>Annual Operation Plan and Budget</i>
BPWMA.....	<i>Burunge Pilot Wildlife Management Area</i>
CDP.....	<i>Community Development Policy</i>
CUZ.....	<i>Corridor Use Zone</i>
EA.....	<i>Environmental assessment</i>
FMP.....	<i>Fire Management Plan</i>
GMP.....	<i>General Management Plan</i>
GUZ.....	<i>General Use Zone</i>
HRUZ.....	<i>Horse Race Use Zone</i>
HUZ.....	<i>Hunting Use Zone</i>
LGRP.....	<i>Local Government Reform Programme</i>
LUZ.....	<i>Lake Use Zone</i>
MZP.....	<i>Management Zone Plan</i>
MZS.....	<i>Management Zone Scheme</i>
NGOs.....	<i>Non Governmental Organisations</i>
RDS.....	<i>Rural Development Strategy</i>
RMZP.....	<i>Resource Management Zone Plan</i>
SMEs.....	<i>Small and Medium Enterprises</i>
SUA.....	<i>Sokoine University of agriculture</i>
TPZ.....	<i>Total Protection Zone</i>
VC.....	<i>Village Chairman</i>
VDZ.....	<i>Visitor Development Zone</i>
VLUP.....	<i>Village Land Use Plan</i>
WMA.....	<i>Wildlife Management Area</i>
WMAs.....	<i>Wildlife Management Areas</i>



EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

The Wildlife Policy was adopted in 1998. The policy aims at involving rural communities and other stakeholders in taking joint responsibility for the sustainable management of wildlife and other natural resources. In order to support the implementation of the Wildlife Policy (1998), the Government developed and approved the Wildlife Conservation (Wildlife Management Areas) Regulations in 2002. Subsequently the Government completed and approved the Guidelines for Designation and Management of Wildlife Management Areas in December 2002. Lake Burunge Game Controlled Area was selected as one of the pilot Wildlife Management Areas (WMAs).

In order to guarantee sustainable conservation of wildlife resources in WMAs, and safeguard the interests of traditional communities, the Wildlife Conservation (Wildlife Management Areas) Regulations 2002 calls for the development of a General Management Plan (GMP) or Resources Management Zone Plan (RMZP) before the establishment of WMAs. A RMZP, which operates for five years only, is an interim measure before a GMP.

Reflecting these policy and legal requirements, the Authorised Association (AA) of the five villages (Vilima Vitatu, Minjingu, Mwada, Magara and Sangaiwe) responsible for the Burunge Pilot WMA organized two workshops in May and June 2004 to analyse information data sheet of the prospective Wildlife Management Area and develop draft RMZP for endorsement of the Burunge Pilot WMA by the Director of Wildlife. Thus this draft RMZP document is a result of the workshops organised by the AA.

The draft RMZP is a document that sets for the basic management and development philosophy of the Burunge Pilot WMA, provides current image of the reality, defines the desired future of the Burunge Pilot WMA and provides for the means of changing the negative situation and achieving the desired future over a period of 5 years.

During the development of the draft RMZP the district authorities and the process were guided by the following constraints:

- The Wildlife Conservation (Wildlife Management Areas) Regulation, 2002;
- The Guidelines for Designation and Management of Wildlife Management Areas (2002);
- A joint Village Land Use Plan (VLUP); and
- The Village Land Act (1999).

The first step in the planning process was to identify the planning and management issues that would be addressed in the draft RMZP. Based on the information data sheet analysis, stakeholders identified the following problems, in terms of priority:

- Lack of conservation awareness amongst leaders
- Inadequate working tools
- Tree felling and charcoal burning
- Inadequate funding
- Poor infrastructure

- Property damage by wildlife
- Unskilled labour
- Poaching
- Wildfires
- Haphazard livestock grazing and high number of livestock
- Boundary conflicts between the Tarangire National Park (TNP) and local communities
- Denial to issue licence on certain resources
- Weak legislation
- Wildlife-livestock disease interactions
- Agriculture inside BPWMA

In any protected area there are many important resources and values. For planning purposes, the stakeholders agreed to focus on what was termed as outstanding resource values. The term “outstanding” was used to mean extraordinary, exceptional or unique. Outstanding resource values were defined as resources that capture the essence why the protected areas were created and exist, because they help maintain the integrity of the protected areas system. Based on the information data sheet analysis, the following five outstanding resources values of the BPWMA were identified:

- Revenue from tourism, photographic and hunting activities;
- Wilderness character of the area;
- Variety of wildlife, including birdlife;
- Burunge and Manyara lakes; and
- Wildlife corridor for Manyara and Tarangire national parks.

Defining purposes was the next stage of the planning process. In the same participatory workshop, purposes were defined as the reason or reasons for which the area was set aside and exists as a proposed Wildlife Management Area. Stakeholders in a technical workshop used the information data sheet and outstanding resources and values to define the following purposes of the BPWMA:

- To generate revenue from tourism, photographic and hunting activities;
- To protect and preserve the wilderness character of the area;
- To protect and preserve the variety of wildlife, including birdlife;
- To protect and preserve the Burunge and Manyara lakes; and
- To safeguard the wildlife corridor for Manyara and Tarangire national parks.

Having defining the purposes for which the WMA should be established, the technical workshop defined the significance of the BPWMA. Significance was summarized in statements that describe the reasons the area is important to natural or cultural heritage. Such statements expanded upon the identification of exceptional resource values by adding unique qualifiers and placing the protected area within the context of a region, national, and international importance. Together with purpose, significance established the framework on which the RMZP was based. An understanding of significance of the area was particularly important in identifying resource management and interpretation priorities and in determining the type of visitor

experience most appropriate to the area. Stakeholders developed the following significance statements for the BPWMA:

- BPWMA is one of the most important WMA in Tanzania with significant potentials to generate revenue from tourism, photographic and hunting activities for the development of the villages;
- BPWMA is the most researched pilot WMA in Tanzania;
- BPWMA is one of the pilot WMA with very unique wetlands of Burunge and Manyara lakes; and
- BPWMA is the only pilot WMA that protects the wildlife corridor of two famous national parks, Manyara and Tarangire.

Before this stage, the planning process had been focusing on the existing conditions and situations in the BPWMA i.e. existing issues and problems, exceptional resource values, protected area purposes and significance. Defining vision, goal and management objectives followed the stage of defining existing conditions in the BPWMA. Vision, goal and management objectives, define an image of the desired future of the BPWMA. The vision of BPWMA was defined as “integrated, well managed and self-financing protected area in which nationally-important biodiversity is protected, essential ecological processes are sustained, and the stakeholders fully support and tangibly benefit from conservation efforts”. The overall goal of the BPWMA was defined as “ecological, economical and social values of the enhanced, sustained and positively contributes to the rural economy of the area”.

Based on the SMART criteria (Specific, Measurable, Achievable, Relevant and Time-bound objectives), the stakeholders in a technical workshop identified the following management objectives for the BPWMA:

- To ensure that the actions of village leaders and people are reflective of increased conservation awareness by 2010;
- To ensure that BPWMA operations are effective and efficient by 2010;
- To increase the number of trees and forest cover by 10% by 2010;
- To increase and sustain financial contribution of the BPWMA to the village governments by 400% by 2010;
- To reduce property damage by wildlife by 50% by 2010;
- To establish and maintain viable wildlife populations by the year 2010;
- To reduce the effects and incidences of wildfires by 30% by 2010;
- To reduce conflicts between BPWMA and other uses in the area by 20% by 2010; and
- To reduce wildlife-livestock disease incidences by 5% by 2010.

Together with the analysis of the information data sheet, the Wildlife Conservation (Wildlife Management Areas) Regulation, 2002 requires the districts to undertake technical decisions on zoning. The zoning is defined as a planning technique used for evaluating and classifying WMA lands. Zoning describes activities that can and cannot occur in each area of the prospective WMA, the rationale behind each decision on uses and levels of developments and it set the limits of acceptable use and change. The management zoning scheme that is proposed for the BPWMA designates where various management strategies will best resolve existing problems facing the

BPWMA, protect outstanding resource values and accomplish defined management objectives by defining what can and what cannot be done in different areas of the BPWMA. Also the difference in the types and levels of use as well as the types and levels of physical development distinguishes one management zone from another.

The following six management zones for the BPWMA were developed in a technical workshop:

- Corridor Use Zone (CUZ);
- General Use Zone (GUZ);
- Hunting Use Zone (HUZ);
- Lake Use Zone (LUZ);
- Horse Race Use Zone (HRUZ);
- Visitor Development Zone (VDZ); and
- Total Protection Zone (TPZ).

The chapter on management zone scheme describes in details each of the zone mentioned above. Also the zone map was prepared to guide the implementation of the management zone scheme.

In order to achieve the management objectives of the RMZP as stated above and in order to implement the management zone scheme the stakeholders developed the following four programs and subsequent activities:

- Visitor use, development and revenue program

The overall aim of this program is to enhance visitor enjoyment and satisfaction and generate revenue that would make BPWMA and the villages self-financing through non-consumptive and consumptive tourism and through rational use and allocation of revenue generated from the area.

- Administration and operations program

This program shall aim at increase efficiency and effectiveness of the BPWMA operations through the provision of relevant facilities, infrastructure and training to BPWMA staff and management. Also the programs shall implement activities that coordinate the implementation of the RMZP.

- Protected area-community relations program

The program aims at supporting community livelihoods in order to ensure that the relationships between people and wildlife is improved and maintained. Improved relationship would guarantee sustained conservation support from the local people of the five villages.

- Natural resources program

Natural resources management program is aimed at the protection of biodiversity and the entire Tarangire-Lake Manyara ecosystem. Also the program is aimed at ensuring the natural resource data is available for rational management decisions.

Environmental assessment of the proposed actions indicated that in a short-term, the BPWMA revenue, biodiversity and the ecosystem would be adversely affected by the implementation of the RMZP proposed programs. The implementation of the RMZP would require heavy initial financial investments. This will have short-term adverse effects on financial resources and the budgets of the village governments. However, in the long-term, the BPWMA shall benefit financially from increased income resulting from diversified visitor uses and other self-financing strategies that are proposed in the RMZP. Also, in a short-term, establishment of campsites and development of new road network shall adversely affect the biophysical resources and the entire ecosystem. The RMZP proposes Environmental Impacts Assessment (EIA) for all new physical developments in the BPWMA, as a direct mitigation measure. Also the RMZP recommends studies before the implementation of some physical developments, as feedback mitigation measures.

In order to ensure effective and efficient implementation of the RMZP the following activities need to be given the highest priority:

- Development and circulation of Kiswahili version of the RMZP;
- Submission of the RMZP to the Director of Wildlife for WMA approval processes;
- Development and implementation of a monitoring plan, with objectively verifiable performance indicators;
- Purchase of essential movable and fixed assets; and
- Filling the staff workloads gaps.



BACKGROUND INFORMATION



1. BACKGROUND INFORMATION

1.1 Introduction

The Wildlife Policy was adopted in 1998. The policy provides the framework for the establishment of a new category of protected area, Wildlife Management Area (WMA), for the purposes of effecting community-based conservation. The policy aims at involving rural communities and other stakeholders in taking joint responsibility for the sustainable management of wildlife and other natural resources.

In order to support the implementation of the Wildlife Policy (1998), the Government developed and approved the Wildlife Conservation (Wildlife Management Areas) Regulations in 2002. Subsequently the Government completed and approved the Guidelines for Designation and Management of Wildlife Management Areas in December 2002. The Guidelines were intended to serve as practical tools for the establishment and management of Wildlife Management Areas (WMAs) in the pilot districts of Tanzania. Lake Burunge Game Controlled Area was selected as one of the pilot WMAs.

In order to guarantee sustainable conservation of wildlife resources in WMAs, and safeguard the interests of traditional communities, the Wildlife Conservation (Wildlife Management Areas) Regulations 2002 calls for the development of a General Management Plan (GMP) or Resources Management Zone Plan (RMZP) before the establishment of WMAs. A RMZP, which operates for five years only, is an interim measure before a GMP.

Reflecting these policy and legal requirements, the Authorised Association (AA) of the five villages (Vilima Vitatu, Minjingu, Mwada, Magara and Sangaiwe) responsible for the Burunge Pilot WMA organized two workshops in May and June 2004. The objectives of the workshops were to:

- Become familiar with the WMA values and process;
- Undertake problems and threats analysis;
- Identify resources values of the Burunge pilot WMA;
- Define purposes and significance of the Burunge pilot WMA;
- Define the desired future for the Burunge Pilot WMA;
- Develop Management Zone Scheme (MZS) and Resource Management Zone Plan (RMZP) for the Burunge Pilot WMA;
- Prepare a plan of action; and
- Develop environmental statements.

Thus this document is the output of the two stakeholder workshops that were organised by the AA of the five villages of the Babati district.

1.2 Values and objectives of the Resource Management Zone Plan

This RMZP is a document that sets for the basic management and development philosophy of the Burunge Pilot WMA, provides current image of the reality, defines the desired future of the Burunge Pilot WMA and provides for the means of changing

the negative situation and achieving the desired future over a period of 5 years. The document includes the following major information:

- Analysis of the information data sheet i.e. existing situations (issues, resource values, protected area purposes and significance);
- Desired situation for the protected area (vision, goal and management objectives);
- Rationale for management zone scheme;
- Description of activities that can and cannot occur in each management zone;
- Limits of acceptable change and uses; and
- Environmental statements.

Through the RMZP process, Burunge Pilot WMA managers and stakeholders were able to identify problems, envision the future under existing conditions or trends and develop strategies and a program of actions for achieving desired future conditions. Therefore the RMZP provides managers with a framework for day-to-day operations and management as well as long-term management, thus ensures continuity in management. Also the RMZP would be used as a public relations document to help direct and raise funding for actions identified in the plan. The RMZP provides a framework for rational allocation and use of meagre resources in the five villages.

Without a RMZP, it would be very difficult to achieve sustainable conservation of the Burunge Pilot WMA, because development and use activities would occur on a haphazard basis, often in response to individual interests, political and socio-economic pressures. The results would likely to be lost opportunities and irreversible damage to the Burunge Pilot WMA.

1.3 Policy framework

For the past few years, the Government of Tanzania has been implementing reforms aimed at addressing development problems affecting social and economic conditions of rural populations. Reforms of local government are well underway. The local government reforms are implemented under the Local Government Reform Programme (LGRP). The LGRP promotes decentralisation of rights and responsibilities from central to local government levels and the capacity development of the latter have repeatedly been stated as objectives of local government reform in Tanzania. The first phase of local government reform for 38 reforming districts focused upon building the capacity of district (and municipal) authorities. The reforms are designed directly to improve the capacity at local levels to serve the local population and to support the ‘fundamental level of governance in Tanzania’ i.e. the village governments. The local levels, the district, the ward and especially the village, have become more crucial for socio-economic development, service delivery, representation and management. These are crucial aspects in support of community approach to natural resources management, including the establishment and subsequent management of WMA.

Also following the launching of a broad policy framework, the Tanzania Development Vision 2025, which stipulates the vision, mission, goals and targets to be achieved with respect to economic growth and poverty eradication by the year 2025, several policies have been formulated for different development sectors. The formulation of Tanzania Development Vision 2025 emanated from Government

realisation that previous development policy were not in consonance with the principles of ongoing local, national, regional and global developments. The following policies and strategies support the principle and practise of WMA.

Rural Development Strategy

The Rural Development Strategy (RDS), still in draft form, will provide policy guidelines for projects aiming at reducing rural poverty. Like the PRSP, the Rural Development Strategy recognises decentralised government and democratisation as important elements of society. Rural men and women should be empowered to manage natural resources for their own benefit.

Community Development Policy (1996)

The Community Development Policy (CDP) encourages individuals, families, groups and associations to undertake development activities in order to contribute to the pronounced government objectives of self-reliance. To provide advice and train families etc. is seen as an important in reaching poverty alleviation.

The National Land Policy (1995)

This promotes land tenure systems, facilitating social and economic development, without upsetting the ecological balance of the environment. It is noted in the policy that wetlands have often been regarded as wastelands and considered useless for social and economic development; the policy seeks to reverse this negative perception by proposing that wetlands are properly studied.

The Wildlife Policy (1998)

There are several strategies that promote management of Wildlife Management Area by the local governments. A strategy for conserving and managing wildlife resources clearly states that wildlife management responsibility of the settled and areas outside core protected areas (National Parks, Ngorongoro Conservation Area and Game Reserves) shall be devolved to rural people and private sector. A strategy for protecting wildlife illegal aims at devolving responsibility of containing illegal use of wildlife in WMAS to rural communities. A strategy for protecting biological diversity aims at establishing a new category of protected area to be known as Wildlife Management Area for the purposes of effecting community based conservation. A strategy for ensuring that wildlife conservation competes with other forms of land use aims at involving rural communities and other stakeholders in taking joint responsibility for the sustainable management of wildlife and other natural resources. Strategies for recognising an intrinsic value of wildlife to rural communities aims at encouraging resident hunting which benefit rural communities in WMAs on those land hunting is conducted.

The National Tourism Policy (1999)

The policy recognises that most tourist attractions lie within local communities or in their vicinities and in most cases co-exist side by side with the communities in wildlife areas. It is for such reasons that it is imperative for communities living within

or around these area to be fully involved in the development and management of these attractions and in addition, to get a share of the income generated from tourist activities within their areas. Formation and subsequent management of WMA would help communities to participate in the process of tourism management in Tanzania.

The National Forest Policy (1998)

It is relevant because of the coverage of mangroves and swamp forest and because forests have important functions in water catchments areas. It sets out general guidelines for managing forest resources, aimed at ensuring a sustainable supply of forest products and services, and generally acknowledges the need for cross-sectoral regulation. So does the *Mineral Act* (1998) requires license holders to take all appropriate measures for the protection for the environment including wetlands.

Beekeeping Policy

This policy from 1998 has the objective of enhancing sustainable contribution to the sector for socio-economic development and environmental conservation, covering honeybees.

Small and Medium Enterprise Development Policy

Small and Medium Enterprise Development Policy of 2003 was prepared in a participatory basis covering a wide spectrum of entrepreneurs and government officials. The Policy is designed to empower SMEs in rural as well as urban areas to boost the contribution to the national economy.

1.4 Planning process and constraints

1.4.1 Planning process

Through a support from the Babati District Wildlife Office, the Authorised Association (AA) of the five villages (Vilima Vitatu, Minjingu, Mwada, Magara and Sangaiwe) responsible for the Burunge Pilot WMA identified a need to develop a RZMP. Due to resources constraints the AA could not afford to develop a WMA General Management Plan (GMP) as required by the Wildlife Conservation (Wildlife Management Areas) Regulations, 2002.

Through the use of baseline data of the Burunge Pilot WMA and a series of consultative meetings, the AA analysed the situation of the area. The analysis provided information on the following aspects:

- Issues, concerns and problems facing Burunge Pilot WMA;
- Policy and legal frameworks that govern the WMAs; and
- Constraints to the implementation of the RMZP.

Subsequently the AA organized two technical workshops comprising of planning and the AA on 29th May and 15th June 2004 to develop the RMZP for the Burunge Pilot WMA. Also representatives from the local government, Non Governmental

Organisations (NGOs) and other stakeholders participated in the workshops. The RMZP was the major outputs of the workshops.

1.4.2 Planning constraints

- The Wildlife Conservation (Wildlife Management Areas) Regulation, 2002

The Wildlife Conservation (Wildlife Management Areas) Regulation, 2002 provide the legal framework that shall apply to village land set aside for wildlife conservation. The Regulations provides the legal framework for the establishment and subsequent management of Wildlife Management Areas. Eighth Schedule of the Regulations (Made Under Regulation 36(3)) outlines the process and the format for the Resource Management Zone Plan (RMZP). Thus the process and the format of this RMZP were guarded by these Regulations.

However these Regulations would apply to the Burunge Pilot WMA after transfer of Reserved Land to Village Land has been made.

- The Guidelines for Designation and Management of Wildlife Management Areas (2002)

The Guidelines define Wildlife Management Areas as areas declared by the Minister to be so and set aside by village government for the purpose of biological natural resource conservation.

- A joint Village Land Use Plan (VLUP)

Preparation of a joint Village Land Use Plans (VLUP) is a prerequisite to the establishment of Wildlife Management Area. A joint VLUP may help to solve or avoid land use conflicts between two or more neighbouring villages, and to improve the management of the shared areas. Part IV of the Regulations clearly states that each application for designating a Wildlife Management Area shall be accompanied by a land Use plan approved by the Village Assembly. Thus the existing VLUP strained the development of the RMZP.

- The Village Land Act (1999)

This Act is essential in terms of land-use planning processes and land-use management. All land is basically vested in the President, within the categories of village land (catered for in the *Village Land Act* 1999), general land and reserved land. Participatory guidelines have been developed for implementation of the Village Land Act through land-use specification, planning and demarcation.



ANALYSIS OF INFORMATION DATA SHEET



2. ANALYSIS OF THE INFORMATION DATA SHEET

This chapter provides results of the analysis of the information data sheet of the prospective Burunge Wildlife Management Area. The analyses of existing socio-economic and natural resources data of the area were conducted using different fora and methodologies. Results of the analyses are presented in the form of existing conditions in the BPWMA. The existing conditions are described in terms of the following aspects:

- Problems, concerns or issues;
- Outstanding resources and values of the BPWMA;
- Existing purposes of the BPWMA; and
- Existing significance of the BPWMA.

2.1 Problems, issues and concerns

The first step in any planning process is to identify the planning and management issues that would be addressed in the RMZP. In this document words issues, problems and concerns are used synonymously. Identifying issues is one of the most important steps in the process because it provides focus for the rest of the effort.

Workshop participants identified specific issues facing proposed Burunge Pilot Wildlife Management Area. Because management and resource protection issues are not always confined to park boundaries, participants identified external issues as well.

Analysis of the information data sheet and stakeholder workshop resulted in the identification of the following problems, in terms of priority:

- Lack of conservation awareness amongst leaders

Conservation skills, knowledge and attitude are inadequate amongst the Village leaders. In order to ensure effective and efficient management of BPWMA village leaders may require adequate wildlife conservation and management training. It was evident during the workshop that majority of the problems facing BPWMA were caused by inadequate training in the conservation and management of natural resources.

- Inadequate working tools

Vehicles, tents, uniforms, firearms and other wildlife management tools were inadequate or lacking. Wildlife management activities were seriously constrained due to lack of necessary tools. Destruction of wildlife resources went unabated in and outside the BPWMA due to lack of necessary working tools.

- Tree felling and charcoal burning

Trees are the most important source of building materials and energy for the local communities of the five villages. Regeneration of trees in the BPWMA is slowed due to overgrazing and excessive tree felling in the area. Demands for trees have also increased as a result of lack of alternative sources of energy and building materials.

- Inadequate funding

Funding for management of the BPWMA is inadequate. Income that is generated from the Hunting Block through wildlife utilisation goes straight to the Wildlife Department. Other tourism initiatives that are being exercised in the BPWMA do not produce tangible benefits due to inadequate wildlife entrepreneurial skills, knowledge and attitudes of the village governments.

- Poor infrastructure

There are few designated roads that allow access into the BPWMA for management purposes. Those few roads are in appalling conditions. Offices for Rangers are absent. Management of BPWMA becomes difficult due to inadequate of necessary management infrastructure.

- Property damage by wildlife

Local community properties, mostly crops, were being frequently raided by wildlife from BWMA or nearby national parks. Buffaloes, Wildebeests and Elephants are the major wildlife species that cause crop damage. Also there were incidences whereby Lions cause damages to livestock in areas around the BPWMA. Property damage by wildlife is a most important cause of conflicts between wildlife management and other land uses in the area. Conflicts create antipathy of the local people towards wildlife conservation and management.

- Unskilled labour

For successful wildlife management specialised knowledge, skills and right attitudes are necessary. Wildlife population in the BPWMA is declining partly due to lack of skilled labour in the village governments. Also implementation of the RZMP shall not succeed without proper training of the managers of BPWMA. Skills in resource inventory, resource protection and wildlife entrepreneurship would be necessary for the successful management of BPWMA.

- Poaching

Illegal collection of resource inside the BPWMA is evident. The Wildlife Conservation Act (1974) necessitates the local community to acquire licence for the utilisation of certain wildlife resources. Greedy people from within the villages or from outside the area utilise certain wildlife species without a licence from the Director of Wildlife. Illegal resource use of resource create undue burden on wildlife resources thus cause declining wildlife population trends.

- Wildfires

Wildfires occur frequently inside the BPWMA. The major causes of wildfires in the areas are charcoal producers and honey gatherers. Less often tourist in the areas surrounding the BPWMA and people passing through the Babati-Arusha main road

accidentally cause wildfires. Wildfires have overwhelming effects on the biodiversity and ecology of the BPWMA when occur at wrong season and magnitude.

- Haphazard livestock grazing and high number of livestock

There is limited control of the numbers of livestock allowed inside the BPWMA. Also livestock are allowed everywhere inside the BPWMA and every time of the year. Local people of the area, majority of whom are immigrants and nomads, rely on livestock as source of sustainable livelihoods. They would wish to keep as many livestock as it is possible as a source of security. High numbers of livestock and haphazard grazing inside the BPWMA create overgrazing and subsequently it cause erosion in the area.

- Boundary conflicts between the Tarangire National Park (TNP) and local communities

There is misunderstanding between the TNP authorities and village governments on the actual boundaries of the TNP and BPWMA. Village governments “feel” that the TNP management have extended their authorities beyond the TNP actual borders into the BPWMA.

- Denial to issue licence on certain resources

The Wildlife Act (1974) does restrict issuing of licences for certain wildlife resources. Denied access to certain wildlife resources reduce would be income for the village governments.

- Weak legislation

The current laws relating to the utilisation and protection of natural and cultural resources are very weak. Weaknesses of the existing legislation cause inadequate protection of resources of BPWMA. Also weak laws do not support the existing Wildlife Policy (1998), other natural resources and environmental policies and the development of local government reforms.

- Wildlife-livestock disease interactions

Livestock diseases are common in and around the BPWMA. Local people blame wildlife for the diseases that affect the livestock population around the BPWMA. This creates acrimony between the livestock keepers and the wildlife management in the area.

- Agriculture inside BPWMA

Subsistence agriculture adjacent and inside the BPWMA is evident. Agriculture and wildlife management are not compatible. Wildlife cause enormous damages to agricultural crops. This creates a negative attitude of the local people towards wildlife conservation in the area.

2.2 Outstanding resources and values

In any protected area there are many important resources and values. For planning purposes, the stakeholders agreed to focus on what was termed as outstanding resource values. The term “outstanding” was used to mean extraordinary, exceptional or unique. Outstanding resource values were defined as resources that capture the essence why the protected areas were created and exist, because they helped maintain the integrity of the protected areas system. These could be intangible or tangible resources. These resources are not limited to the boundaries of protected areas. Due to resources (time, staff and money) limitation, protected areas needed a management priority for protecting natural and cultural resources.

The following criteria were developed and used in the identification of outstanding resources and values for the BPWMA:

- Unique biological attributes, vegetation types and land forms;
- Outstanding natural and physical features;
- Critical for maintaining the integrity of the protected areas;
- Rare, endemic, endangered, threatened plants and animals;
- Sensitive biological and physical resources;
- Major cultural, historical and archaeological sites; and
- Resources with worldwide recognition.

Experiences of stakeholders, information data sheet and existing documents on the two protected areas were major sources of information in the identification of the following outstanding resources values of the BPWMA:

- Revenue from tourism, photographic and hunting activities;
- Magara waterfalls;
- Magara mountains, Vilima Vitatu hills, Bessi and Oldoyi mountains;
- Unique vegetation and trees e.g. Baobab, Hyphaene and Acacia;
- Livestock grazing land;
- Manyara and Burunge lakes;
- Birdlife;
- Variety of wildlife;
- Wilderness character;
- Beekeeping activities;
- Building materials;
- Njoro and Magara hot springs;
- Source of wildlife meat;
- Fishing;
- Bessi mountains caves;
- Medicinal plants
- Wildlife corridor for Manyara and Tarangire national parks;
- Research area for Mweka and SUA;
- Good camping sites
- Foot prints at Magara stones; and
- “Jiwe la bao” at Oldoyi mountain.

The stakeholders analysed the information data sheet and identified and ranked the following five most important resources and values of the BPWMA;

- Revenue from tourism, photographic and hunting activities;
- Wilderness character of the area;
- Variety of wildlife, including birdlife;
- Burunge and Manyara lakes; and
- Wildlife corridor for Manyara and Tarangire national parks.

The identification of exceptional resource and values would allow planners, managers, and decision makers to focus their efforts, limited resources and staff on these most important resources. Also the exceptional resource and values were integral in determining the BPWMA purposes and significance, formed the basis for identifying the area's primary interpretive themes, and helped set the parameters for developing management zones.

2.3 BPWMA purposes

Purposes were defined as the reason or reasons for which the area was set aside and exists as a proposed Wildlife Management Area. It is, therefore, basic to all the other assumptions about the protected area and the way it should be managed and used. There were a number of places to look for statements of purposes. Proposing legislation formed the basis for defining purposes of the BPWMA. However the proposing proclamations contained no references to the reasons for proposing Burunge as a WMA. Therefore stakeholders analysed the information data sheet and used the outstanding resources and values to define the following purposes of the BPWMA:

- To generate revenue from tourism, photographic and hunting activities;
- To protect and preserve the wilderness character of the area;
- To protect and preserve the variety of wildlife, including birdlife;
- To protect and preserve the Burunge and Manyara lakes; and
- To safeguard the wildlife corridor for Manyara and Tarangire national parks.

2.3 BPWMA significance

The area's significance was defined as the area's importance to our natural and/or cultural heritage. Significance was summarized in statements that describe the reasons the area is important to natural or cultural heritage. Such statements expanded upon the identification of exceptional resource values by adding unique qualifiers and placing the protected area within the context of a region, national, and international importance.

Together with purpose, significance established the framework on which the RMZP was based. An understanding of significance of the area was particularly important in identifying resource management and interpretation priorities and in determining the type of visitor experience most appropriate to the area.

Stakeholders analysed the information data sheet and developed the following significance statements for the BPWMA:

- BPWMA is one of the most important WMA in Tanzania with significant potentials to generate revenue from tourism, photographic and hunting activities for the development of the villages;
- BPWMA is the most researched pilot WMA in Tanzania;
- BPWMA is one of the pilot WMA with very unique wetlands of Burunge and Manyara lakes; and
- BPWMA is the only pilot WMA that protects the wildlife corridor of two famous national parks, Manyara and Tarangire national parks.



DESIRED CONDITIONS IN THE BPWMA



3. DESIRED CONDITIONS IN THE BPWMA

Vision, goal and management objectives, define an image of the desired future of the BPWMA. Before this stage, the planning process had been focusing on the existing conditions and situations in the BPWMA i.e. existing issues and problems, exceptional resource values, protected area purposes and significance. The defined desired future of the BPWMA reflects the results of the analysis of the information data sheet, the issues, outstanding resource values, the purposes and significance of the BPWMA as described in the previous chapter.

3.1 Vision

The vision of BPWMA is “integrated, well managed and self-financing protected area in which nationally-important biodiversity is protected, essential ecological processes are sustained, and stakeholders fully support and tangibly benefit from wildlife conservation efforts in the area”.

3.2 Goal

The overall goal of the BPWMA is “ecological, economical and social values of the BPWMA enhanced, sustained and positively contributes to the rural economy of the area”.

3.3 Management objectives

Stakeholders defined management objectives as the list of desired conditions for the BPWMA. These desired conditions were expressed, as broad, conceptual descriptions of what the BPWMA should look like based on the kinds of conditions stakeholders wanted to prevail. The group of management objectives developed in the RZMP constituted the “desired future” of the BPWMA and the basis for recommending the management zoning scheme and plan of action.

As the desired future for the BPWMA, management objectives reflected purposes, significance, and exceptional resource values. Management objectives do not repeat purposes but describe the conditions that should exist to accomplish the purposes. Management objectives spell out the ends desired but not than the means to those ends. Although describing the desired future, they do not describe the strategies, programs, actions and support facilities needed to achieve these desired conditions. Those recommendations come in the next step of the planning process i.e. the management zone scheme and plan of action.

All management objectives in this section respond to the issues that have been identified. All issues are addressed by at least one management objective. If an issue were not addressed by a management objective, it will not be resolved by the plan’s recommendations. At the same time, however, it also is important to remember that not all of the management objectives need to respond to an issue. There are likely to be some management objectives that do not correspond to an issue but nonetheless describe a condition desired in the BPWMA.

Based on the SMART criteria (Specific, Measurable, Achievable, Relevant and Time-bound objectives), the stakeholders identified the following management objectives for the BPWMA:

- To ensure that the actions of village leaders and people are reflective of increased conservation awareness by 2010;
- To ensure that BPWMA operations are effective and efficient by 2010;
- To increase the number of trees and forest cover by 10% by 2010;
- To increase and sustain financial contribution of the BPWMA to the village governments by 400% by 2010;
- To reduce property damage by wildlife by 50% by 2010;
- To establish and maintain viable wildlife populations by the year 2010;
- To reduce the effects and incidences of wildfires by 30% by 2010;
- To reduce conflicts between BPWMA and other uses in the area by 20% by 2010;
and
- To reduce wildlife-livestock disease incidences by 5% by 2010



MANAGEMENT ZONE SCHEME



4. MANAGEMENT ZONE SCHEME

Management zoning is defined as a planning technique used for evaluating and classifying protected area lands. The management zoning scheme that is proposed for the BPWMA designates where various management strategies will best resolve existing problems facing the complex, protect outstanding resource values and accomplish defined management objectives by defining what can and what cannot be done in different areas of the BPWMA. Also the difference in the types and levels of use as well as the types and levels of physical development distinguishes one management zone from another.

Stakeholders in the development of management zone scheme used no scientifically proven formula. Stakeholders and technical staff of the BPWMA used best available information, professional judgments and their experiences in determining the appropriate zoning scheme for the BPWMA.

Land use capability and suitability to support different types and levels of use and physical developments was an important determinant of the management zone scheme. Locations of existing facilities, existing patterns of use and existing resource conditions did not necessarily influence the process of developing the management zone scheme.

The zoning designations defined in this management plan are based on different management emphases. During the development of the management zone scheme, primary consideration was given but not limited to the following criteria:

- Practically manageable and on-site identifiable land units or management zones;
- Introduction of uses and developments that minimizes existing management problems;
- Elimination of uses and developments that either damage park resources or create undue burden on BPWMA management;
- Protection of outstanding resource values of the BPWMA;
- Achieving BPWMA purposes and enhance its significance;
- Constraints imposed by landscape and ecological determinants;
- Provision of diverse range of appropriate visitor experiences;
- Zone scheme that would increase revenue of the BPWMA;
- Land/environmental capability and suitability to support proposed or existing use and physical developments;
- Use of already impacted areas and resources; and
- Increased contribution to local economies and enhance inter-village relations.

The following six management zones for the BPWMA (Figure 8):

- Corridor Use Zone (CUZ);
- General Use Zone (GUZ);
- Hunting Use Zone (HUZ);
- Lake Use Zone (LUZ);
- Horse Race Use Zone (HRUZ);
- Visitor Development Zone (VDZ); and

- Total Protection Zone (TPZ).

Below is a description of each management zone of the BPWMA. The description includes the following important aspects:

- Description of specific boundary;
- Rationale or justification for each management zone;
- Permissible activities and limits types and levels of uses and physical development that are acceptable in each management zone;
- Prohibited uses and physical developments in each management zone; and
- Necessary or other conditions for the implementation of each management zone.

4.1. Corridor Use Zone

Rationale for the zoning	Migration of Wilderbeest, Zebra, and Elephant and many other species between the Lake Manyara National Park and Tarangire National Park move through the Corridor Zone. It is key to maintaining the corridor in order to maintain the ecological integrity of the southern Maasai ecosystem.	
Boundary description	Borders Tarangire National Park on the east and the Lake Manyara on the west.	
Allowed Uses	Uses	Limits of Acceptable Use
	1. Fuel wood collection	20 people a day
	2. Photographic safaris	1 client at a time
	3. Education and training visits	1 group of students at a time
	4. Research activities	1 Researchers at any given time
	5. Use of watering points for livestock	300 cattles a day at Burunge and 300 a day in the Lake Manyara
	6. Cutting <i>Euphobia species</i> for basket making	20 people a day
	7. Game viewing	5 vehicles at any one time
Prohibited Uses	<ol style="list-style-type: none"> 1. Livestock grazing 2. Wildfires 3. Agriculture 4. Camp sites 5. Hunting 6. Settlements 7. Tree felling 8. Charcoal burning 	
Other Conditions	<ul style="list-style-type: none"> • All conditions imposed by the Wildlife Management Area Regulations and byelaws • Cutting <i>Euphobia species</i> by hand • Carrying fuel wood by Donkey, human heads or bicycles 	

4.2. General Use Zone

Rationale for the zoning	This is an area of low conservation values. Access by local communities for their daily livelihoods is evident at the moment. In order to lessen use restrictions and create people-wildlife conflicts, local communities would be allowed to utilise this area.	
Boundary description	Lake Manyara on the west, borders HRUZ on the north west, and borders Monduli district on the north. Crosses the Arusha-Babati road and borders Total Protection Zone (TPZ) on the west. It also includes livestock routes going through the TPZ to the Lake Burunge	
Allowed Uses	Uses	Limits of Acceptable Use
	1. Use by livestock (Goat, Sheep, Cattle, Donkey, Chicken, Dog)	<ul style="list-style-type: none"> • Cattle 15,000 • Donkey 3,000 • Goats 20,000 • Sheep 10,000 • Horses 80
	2. Photographic safaris	1 client at any given time
	3. Temporary settlements	20 families per annum
	4. Game viewing	5 vehicles at any given time
	5. Fuel wood collection	20 people a day
	6. Grass cutting for thatching	5 people a day
	7. Cutting <i>Euphobia species</i> for basket making	20 people a day
	8. Bricks making	10 people a day
	9. Beekeeping	200 bee hives per annum
	10. Education and training visits	1 group at any given time
	11. Local hunting	1 client a any given time
Porhibited Uses	1. Camp sites	
	2. Professional hunting	
	3. Wildfires	
	4. Agriculture	
	5. Permanent settlement	
Other Conditions	<ul style="list-style-type: none"> • All conditions imposed by the Wildlife Management Area Regulations • Permits are issued for hunting • Outsiders must obtain licenses for cutting <i>Euphobia species</i>, and keeping livestock • All conditions imposed by byelaws 	

4.3. Hunting Use Zone

Rationale for the zoning	Hunting shall be the major source of revenue for the BPWMA. Properly controlled hunting can be a viable business for the villages.	
Boundary description		
Allowed Uses	Uses	Limits of Acceptable Use
	1. Professional hunting	<ul style="list-style-type: none"> • 1 hunting company • 1st July – 31st December

	2. Photographic safaris	1 st January – 30 th June
	3. Education and training visits	1 st January – 30 th June
	4. Game viewing	1 st January – 30 th June
	5. Tracks	
	6. Bee hives	
	7. Nature trailing and walking safaris	1 st January – 30 th June
Prohibited Uses	1. Livestock grazing 2. Wildfires 3. Agriculture 4. Camp sites 5. Entry without permit 6. Settlements 7. Tree felling 8. Charcoal burning	
Other Conditions	All conditions imposed by the Wildlife Management Area Regulations and Wildlife Conservation Act (1974)	

4.4. Lake Use Zone

Rationale for the zoning	Lakes Burunge and Manyara are the major sources of fish for the neighboring villages. Fish is the third most important source of revenue after agricultures and livestock keeping. Also the two lakes are the only reliable sources of water for livestock during the dry season. Access by local communities for fishing and other uses is key to sustaining the livelihoods of people adjacent the two lakes.	
Boundary description	Lake Burunge, 200 meters from the highest water point during the normal flooding seasons. Lake Manyara, 200 meters from the highest water point during the normal flooding season.	
Allowed Uses	Uses	Limits of Acceptable Use
	1. Fishing (Lake Burunge)	<ul style="list-style-type: none"> • Net size (> 3 inches) • Season – throughout the year • 200 fishermen/year
	2. Fishing (Lake Manyara)	<ul style="list-style-type: none"> • Net size (> 3 inches) • Season – throughout the year • Fishing hooks • 500 fishermen/year
	3. Canoeing	10 a day in the Burunge and 30 a day in Lake Manyara
	4. Water bird watching	No limits
	5. Photographing	1 client a day in each lake
	6. Bird capture	Quotas shall be set annually
	7. Water for livestock and agriculture	

Prohibited Uses	<ol style="list-style-type: none"> 1. Hunting 2. All forms of illegal fishing (Kokora, Katuri, poison, etc) 3. Cultivation 4. Swimming 5. Settlements 6. Fishing of use of < 3 inch-net
Other Conditions	All conditions imposed by the Wildlife Management Area Regulations

4.5. Horse Race Zone

Rationale for the zoning	Currently the area is used for Horse racing. Villages adjacent the HRUZ receives some income from on-going Horse racing. Horse racing is conducted on weekends and restricted is a very small area (500 m ²) along the lake. There are no conflicts between Horse racing and other current uses.	
Boundary description	The Maramboi flats, 500 meters (500 m ²) from the 200 meters of the LUZ (Lake Manyara).	
Allowed Uses	Uses	Limits of Acceptable Use
	1. Photographing	1 client at any given time
	2. Game viewing	2 vehicles at any given time
	3. Livestock grazing	
	4. Horse race	Saturdays and Sundays
Prohibited Uses	<ol style="list-style-type: none"> 1. Hunting 2. Settlements 3. Charcoal burning 	
Other Conditions	All conditions imposed by the Wildlife Management Area Regulations and existing byelaws	

4.6. Visitor Development Zone

Rationale for the zoning	Visitor accommodation is key for sustaining tourism in the area.	
Boundary description	1 km ² of the following sites: Site near Oldoy Mountain, First Drift from Arusha on the way to Lake Manyara, Mwada Baobab tree, Existing site along the Tarangire River (Tarangire River Camp),	
Allowed Uses	Uses	Limits of Acceptable Use
	1. Temporary visitor physical developments	Maximum 40 beds
	2. Staff housing developments	Temporary structures
	3. Walking safaris	
	4. Guided tours	
Prohibited Uses	<ol style="list-style-type: none"> 1. Photographic safaris 2. Livestock grazing 3. Human settlements 4. Hunting 	
Other Conditions	All conditions imposed by the Wildlife Management Area Regulations and existing byelaws	

4.7. Total Protection Zone

Rationale for the zoning	There are certain resources that are sensitive to human uses and developments. Total restriction is key in order to protect and sustain these resource and sites.	
Boundary description	Udoy Forest and the area covers 1 km away from the Tarangire National Park eastern boundary.	
Allowed Uses	Uses	Limits of Acceptable Use
	1. Collection of medicinal plants	No limits
	2. Education and research	No limits
	3. Fuel wood collection	
	4. Photographic safari	1 client at any one time
Prohibited Uses	1. Hunting	
	2. Livestock grazing	
	3. Human settlements	
	4. Agriculture	
Other Conditions	<ul style="list-style-type: none"> • All conditions imposed by the Wildlife Management Area Regulations and existing byelaws • Licences shall be issues for any uses in this zone 	

4.8. Identification of zones on the ground

Water-tight boundaries will be marked using buoys painted white and spaced fifty meters apart. Vegetation between each zones would be cleared for easy identification and implementation of activities related to each zone. Physical features mark certain management zones.

**Burunge Pilot Wildlife Management Area
Resource Management Plan Zonation**

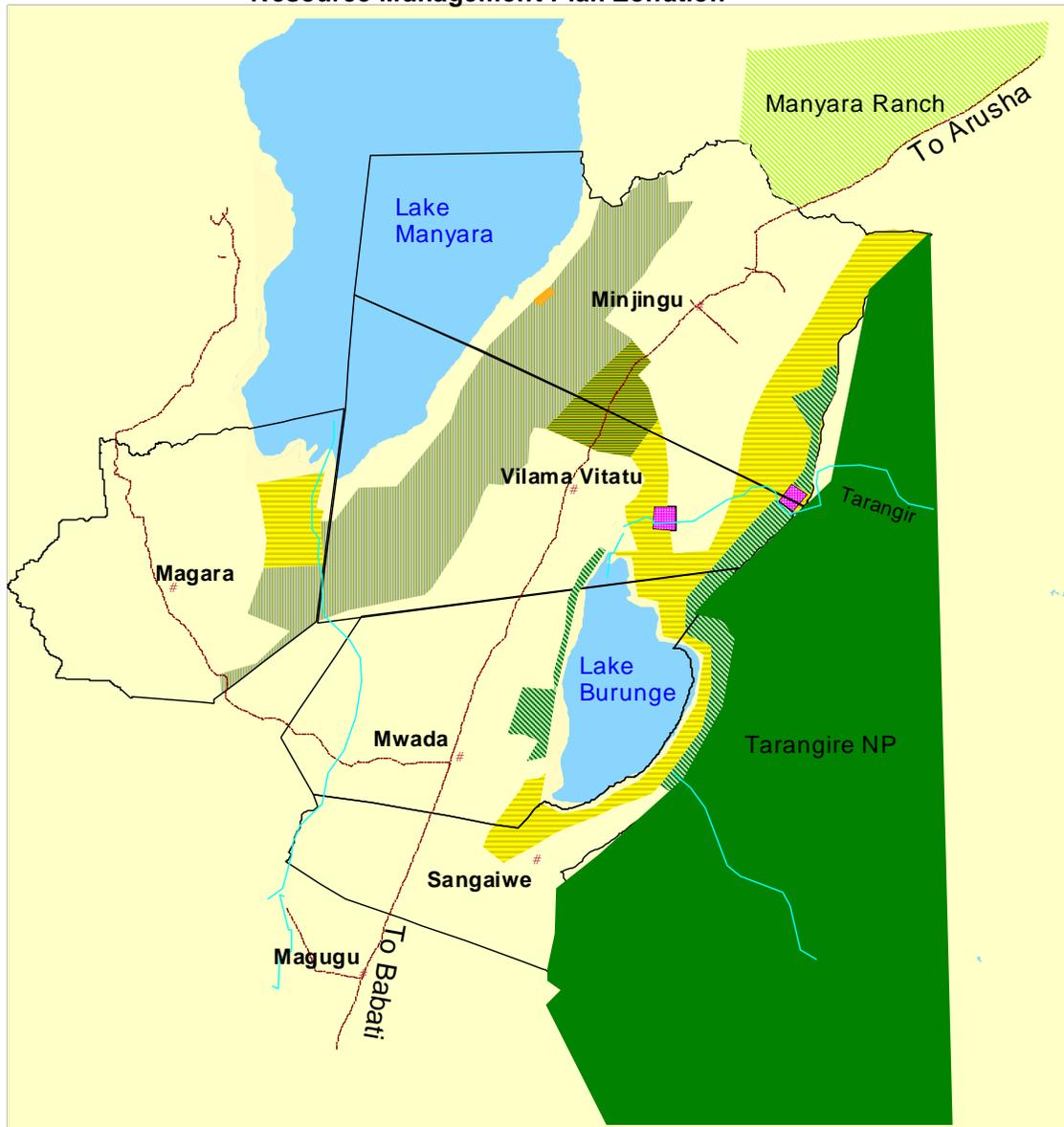


Figure 1. Management zone map



PROGRAMS AND ACTIVITIES



5. PROGRAMS AND ACTIVITIES

This chapter describes specific programs, strategies, actions or activities that are to be undertaken to achieve objectives of the GMP and implement the management zone scheme. The activities proposed in this RMZP do not repeat description of management zone scheme but reinforces it by defining specific and practical actions that would help to minimise identified problems, protect outstanding resources and values, and help achieve protected area purposes.

The chapter outlines major RMZP activities i.e. strategic activities with significant contribution to the vision and goal of BPWMA. The BPWMA management shall continue to identify strategic activities as the implementation of the RMZP unfolds and as circumstances dictate. Routine operations and other activities relevant to the RMZP issues and objectives shall be identified or improved continuously through the development and implementation of Annual Operation Plans and Budgets (AOPB). This planning approach inculcates a sense of flexibility in the implementation of the RMZP.

The stakeholders considered and included actions that would be feasible within the village set-up and policy and legal frameworks. Also the stakeholders described the activities in terms of what needs to be done.

More commonly, the information in this section may not be detailed (Thomas & Middleton, 2003). Detailed description of the plan of action assist on-site BPWMA managers in better understanding of what the RMZP demands from them over a period of five years. Also detailed description of the actions normally helps ease development and implementation of annual operational plans or work plans. However detailed description of activities shall be considered during the development and implementation of the General Management Plan (GMP).

Activities in this chapter are grouped according to their relatedness or resemblance called programs. The stakeholders in developing the plan of action defined the following programs:

5.1. Visitor use, development and revenue program

The overall aim of this program is to enhance visitor enjoyment and satisfaction and generate revenue that would make BPWMA and the villages self-financing through non-consumptive and consumptive tourism and through rational use and allocation of revenue generated from the area. The following activities shall be undertaken as part of this program:

- Develop a framework for tourism concessions and contracts;
- Review the existing and potential tourism concessions and contracts in view to generate additional income;
- Introduce additional tourism opportunities based on management zone scheme;
- Develop and implement visitor interpretation plan;
- Undertake marketing of the BPWMA; and
- Develop and implement financial regulation and procedures manual.

5.2. Administration and operations program

This program shall aim at increase efficiency and effectiveness of the BPWMA operations through the provision of relevant facilities, infrastructure and training to BPWMA staff and management. Also the programs shall implement activities that coordinate the implementation of the RMZP. The following activities shall be implemented under this program:

- Identify training needs, develop and implement training plan for BPWMA; managers and village leaders;
- Develop and implement anti-poaching schedules;
- Identify management facility and infrastructure gaps, develop and implement facility and infrastructure plan;
- Develop and implement human resources management manual;
- Form a Team to implement RMZP;
- Tables the draft RMZP to the Director of Wildlife for endorsement;
- Develop and implement AOPB;
- Develop and implement a GMP; and
- Develop HIV/AIDS Operational Procedures and Action Plan.

5.3. Protected area-community relations program

The program aims at supporting community livelihoods in order to ensure that the relationships between people and wildlife is improved and maintain. Improved relationship would guarantee sustained conservation support from the local people of the five villages. The following activities shall be implemented as part of this program:

- Review and implement the land use plan;
- Provide protection of human property from wildlife damages;
- Develop and implement environmental and conservation awareness plans;
- Initiate BPWMA Stakeholder Forum;
- Identify alternative resources for local communities;
- Conduct training for local communities on alternative Income Generating Activities (IGAs) and Community Based Natural Resources Management (CBNRM); and
- Develop and implement natural resources utilisation guidelines.

5.4. Natural resources program

Natural resources management program is aimed at the protection of biodiversity and the entire Tarangire-Lake Manyara ecosystem. Also the program is aimed at ensuring the natural resource data is available for rational management decisions. The programs shall implement the following activities:

- Develop Fire Management Plan (FMP);
- Develop joint ecosystem-wide management plan;
- Monitor incidences and levels of illegal harvest of natural resources;
- Study and implement wildlife-livestock disease control measures;

- Undertake annual wildlife census, including plants; and
- Develop database on natural resource stock.



ENVIRONMENTAL STATEMENTS



6. ENVIRONMENTAL STATEMENTS

Environmental impact is defined as the change in condition of the resource or environment due to the proposals in the RMZP (including non-action alternative, or continuation of existing action). Environmental assessment (EA) examines potential impacts of proposed actions in order propose measures that would insure that environmental quality is maintained, restored, and enhanced. EA is a planning tool that assists planners and managers do a better job. The EA helped the technical people of the Babati District to achieve the following:

- Recommend actions with positive environmental effects and where there were negative effects, the least possible negative impacts were considered;
- Recommend actions to resolve existing problem by not creating a series of other problems;
- Identify mitigation actions to reduce, eliminate or offset adverse effects and incorporate these actions directly into the RMZP process; and
- Make informed decisions with full understanding of the potential consequences.

It was not possible for the technical people to examine the effects of all the RZMP proposals on the BPWMA environments. Thus the technical staff of the district selected the following eight major proposals for the assessment:

- Introduction of additional visitor activities in the BPWMA;
- Review the existing and potential tourism concessions and contracts in view to generate additional income;
- Develop framework for tourism concession and contracts; and
- Develop and implement natural resources utilisation guidelines.

The technical staff defined the environment to mean physical, biological, cultural, socio-economic aspects and their interrelationships. Based on this definition the planning teams identified the following important environments for environmental assessment:

- Revenue;
- Local communities;
- Biodiversity conservation; and
- Ecosystem maintenance and ecological integrity.

In a short-term, the BPWMA revenue, biodiversity and the ecosystem would be adversely affected by the implementation of the RMZP proposed programs. The implementation of the RMZP would require heavy initial financial investments. This will have short-term adverse effects on financial resources and the budgets of the village governments. However, in the long-term, the BPWMA shall benefit financially from increased income resulting from diversified visitor uses and other self-financing strategies that are proposed in the RMZP. Also, in a short-term, establishment of campsites and development of new road network shall adversely affect the biophysical resources and the entire ecosystem. The RMZP proposes Environmental Impacts Assessment (EIA) for all new physical developments in the

BPWMA, as a direct mitigation measure. Also the RZMP recommends studies before the implementation of some physical developments, as feedback mitigation measures.

Specific environmental statements are summarized below.

6.1 Impacts on revenue

<i>Description</i>	One of the objectives of the BPWMA is to ensure that revenue operational and development costs are met through self-financing. This could be achieved through rationalizing operational costs and increasing income through a variety of means, including development and implementation of financial regulation and procedures manuals.
<i>Plan elements affecting topic</i>	Diversifying visitor experiences and enjoyment, marketing BPWMA locally and internationally, establishment of new visitor facilities, and protecting wildlife of the BPWMA.
<i>Impacts if plan is implemented</i>	Diversifying visitor opportunities, improving visitor facilities and infrastructure, protecting all attractions of the BPWMA and marketing the BWMA will increase the number of visitors, thus boost the revenue. Increased expenditures on operations will ensure efficiency and effectiveness.
<i>Impacts if plan not implemented</i>	BPWMA and the community will continue to face financial problems, thus continue to drain financial resources from tax payers that could be available for alternative development projects elsewhere in the villages. BPWMA would fail to undertake its operations thus fail to protect outstanding resources values of the complex
<i>Comments</i>	Marketing efforts intensified and access to the park eased. Running costs rationalized. Self-financing proposed mechanisms implemented

6.2 Local communities

<i>Description</i>	This RMZP seeks to ensure good working relationship between BPWMA and all relevant stakeholders, reduce illegal activities and increase support from the neighbouring human communities.
<i>Plan elements affecting topic</i>	Community conservation promoted, human-wildlife conflicts minimised and sustainable land uses adjacent the BPWMA promoted.
<i>Impacts if plan is implemented</i>	Local people knowledge and attitude enhanced. Local economies stimulated by increased visitors activities in the BPWMA. Wildlife-people relations improved. Support to the BPWMA from stakeholders will be increased and effects of high human density on BPWMA reduced.
<i>Impacts if plan not implemented</i>	Ignorance on conservation issues and poverty will increase resentment of local people and encroachment into BPWMA. Support from local people will be difficult.
<i>Comments</i>	Providing support to community initiated projects, developing stakeholder forum and enhance extension services will reduce the dependence of neighbouring human communities on BPWMA resources and reduce the conflicts of use

6.3 Biodiversity conservation

<i>Description</i>	BPWMA is one of the sites with high biodiversity values in northern Tanzania.
<i>Plan elements affecting topic</i>	Increased law enforcement activities, providing law enforcement facilities and infrastructure, research and monitoring, carrying out EIA of any new introductions, reduce human-wildlife conflicts.
<i>Impacts if plan is implemented</i>	Joint patrols, increased number of Range Posts, improve the relationship between the BPWMA and surrounding human communities will increase protection of Biodiversity. Research and monitoring will provide adequate management information for biodiversity. Carrying out EIA of any introduction will help secure biodiversity value of BPWMA.
<i>Impacts if plan not implemented</i>	Loss of indigenous species and loss of wilderness character. Tourism will deteriorate and revenue adversely affected.
<i>Comments</i>	Ensure that the management zone scheme is implemented

6.4 Ecosystem maintenance and ecological integrity

<i>Description</i>	Maintenance of ecological integrity is key in minimizing chances of extinction of the species of the BPWMA, Tarangire and Lake Manyara national parks.
<i>Plan elements affecting topic</i>	Joint development and implementation of the ecosystem management plan, increased number of Ranger Posts and support review and implementation of land use plan in areas surrounding BPWMA
<i>Impacts if plan is implemented</i>	Free movement of genetic materials
<i>Impacts if plan not implemented</i>	Increased poaching and incompatible activities and subsequent extinction of certain species
<i>Comments</i>	Ensure that the ecosystem-wide management plan is developed and implemented



IMPLEMENTATION, REFERENCES AND APPENDICES



7. IMPLEMENTATION OF THE RMZP

Implementation is the most difficult and possibly the weakest stage of planning cycle in majority of protected area authorities and systems. Clear strategies and defined processes are key in ensuring effective and efficient implementation of the RMZP.

At the implementation stage, the management zone scheme and plan of actions are put into practice through the allocation and disbursement of funds. A major priority during this stage is to ensure that planned activities are carried out in the way and within the period that was planned. In order to ensure that the RMZP is effectively and efficiently implemented, the formation of Implementation Team and preparation of Annual Operation Plan and Budget (AOPB) are necessary. Other essentials of effective and efficient implementation of the RMZP are:

- Development and circulation of Kiswahili version of the RMZP;
- Submission of the RMZP to the Director of Wildlife for WMA approval processes;
- Development and implementation of a monitoring plan, with objectively verifiable performance indicators;
- Purchase of essential movable and fixed assets; and
- Filling the staff workloads gaps.

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ANNEX 1: PLANNING PARTICIPANTS

<i>Name</i>	<i>Title</i>	<i>Residence</i>
1. Elisamia Y. Mbise	Fisheries Officer	Babati
2. Ayubu L. Kisiri	Village Executive Officer (VEO)	Minjingu
3. Phares M. Songora	VEO	Mwada
4. Laurent U. Dacko	VEO	Sangaiwe
5. Maria Basil	Member	Vilima Vitatu
6. Francis Melami	Member Community Based Organisation (CBO)	Minjingu
7. L. Z. Makau	Village Chairman (VC)	Minjingu
8. E. G. Awtu	Member CBO	Vilima Vitatu
9. Paulo M. Mossallo	Member CBO	Sangaiwe
10. Maulid Omari	Member CBO	Magara
11. Dickson Leonard	Member CBO	Magara
12. Fedilia Munisi	Member CBO	Mwada
13. Augustono Peter	Member CBO	Mwada
14. Mahamadu Shafi	Member CBO	Mwada
15. Magdalena P. Motambi	Deputy Speaker CBO	Sangaiwe
16. Francis Mwanso	Member CBO	Sangaiwe
17. Catherine Colman	Member CBO	Mwada
18. Wilson Ole Sangayon	Member CBO	Minjingu
19. Tatu Rashid	Accountant CBO	Magara
20. Sara E. Natumwa	Member CBO	Magara
21. Juma Rajabu	VC	Magara
22. Omari Bakari	Representative	Mwada
23. Noah L. Teveli	Speaker CBO	Burunge WMA
24. Renatus Bruno	Member CBO	Vilima Vitatu
25. Bernard M. Shishe	VEO	Magara
26. J. G. Gambay	DCFO	Babati
27. Benedict Bellela	VC	Magara
28. Tadey Gway	Secretary CBO	
29. Silvini Songa	Member of the CBO Board	
30. Jerome E. Mompome	Member CBO	Sangaiwe
31. Agnes Alphonse	Member CBO	Vilima Vitatu
32. Somosomo, B.	Community Development Officer	Babati
33. Sangudi, V.	Game Officer	Babati
34. Mathias Mollel	Member CBO	Magara
35. Josephine Johnas	Member CBO	Minjingu
36. Epimack Michael	Chairman	Sangaiwe
37. Godfrey Sallale	Executive Officer	Vilima Vitatu
38. Narcis Nagai	Member CBO	Mwada
39. Ndumbaro, L. W.	Land, Natural Resources and Environment Officer	Babati
40. S. S. Abdallah	Planning Officer	Babati
41. F. Manongi	Deputy Principal, Wildlife College	Moshi
42. T. Binamungu	African Wildlife Foundation	Arusha
43. Makrina Mareja	Member CBO	Sangaiwe
44. Nashon Macokecha	District Wildlife Officer	Babati

ANNEX 2: THE PROCESS OF PREPARING A WMA-RMZP

Copies from the Wildlife Conservation Act (1974). The Wildlife Conservation (Wildlife Management Areas) Regulations, 2002.

1. Conduct a technical workshop comprising of planning team and the AA which shall:
 - (a) Analyse the information data sheet of the prospective Wildlife Management Area
 - (b) Undertake technical decisions on zoning, based o the Information data sheet
 - (c) Describe activities that can and cannot occur in each zone
 - (d) Set limits of use or acceptable change
 - (e) Describe the rationale for existing and proposed development activities in each zone
 - (f) Provide environmental statement on proposed actions
2. Tables the draft Resource Management Zone Plan to the Director for endorsement