

**MAGINGO Authorized Association**

**Liwale Pilot Wildlife Management Area**

**Resource Management Zone Plan**

**2010-2015**

**September 2010**



**APPROVAL PAGE**

**Implementation of this Plan has been approved by**

.....  
**Director of Wildlife  
Ministry of Natural Resources and Tourism  
Dar-es-Salaam**

**Date.....**

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## ACRONYMS USED IN THE REPORT

AA.....	<i>Authorised Association</i>
AOP.....	<i>Administrative and Operations Program</i>
AOPB.....	<i>Annual Operation Plan and Budget</i>
CCDB.....	<i>Community Conservation and Development Bank</i>
CDP.....	<i>Community Development Policy</i>
EA.....	<i>Environmental assessment</i>
FMP.....	<i>Fire Management Plan</i>
GMP.....	<i>General Management Plan</i>
LGRP.....	<i>Local Government Reform Programme</i>
LWMA.....	<i>Liwale Wildlife Management Area</i>
MZP.....	<i>Management Zone Plan</i>
MZS.....	<i>Management Zone Scheme</i>
NGOs.....	<i>Non Governmental Organisations</i>
NRMP.....	<i>Natural Resources Management Program</i>
NSGRP.....	<i>National Strategy for Growth and Reduction of Poverty</i>
RDS.....	<i>Rural Development Strategy</i>
RMZP.....	<i>Resource Management Zone Plan</i>
SME.....	<i>Small and Medium Enterprise</i>
VEO.....	<i>Village Executive Officer</i>
VLUP.....	<i>Village Land Use Plan</i>
VUDRP.....	<i>Visitor, Development and Revenue Program</i>
WEO.....	<i>Ward Executive Officer</i>
WMA.....	<i>Wildlife Management Area</i>
WMAs.....	<i>Wildlife Management Areas</i>
WPRP.....	<i>Wildlife-People Relations Program</i>
WWF.....	<i>Wild Wide Fund for nature</i>

## **AKNOWLEDGEMENT**

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## EXECUTIVE SUMMARY

In order to implement the Wildlife Policy of 1998 the Government developed and approved several strategies including development and approval of 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 Wildlife Conservation (Wildlife Management Areas) Regulations 2002 calls for the development of a General Management Plan (GMP) or Resource Management Zone Plan (RMZP) before the establishment of WMAs in order to guarantee sustainable conservation of wildlife resources in local community lands and safeguard the interests of rural communities. A RMZP, which operates for five years only, is an interim document before a GMP is developed.

Reflecting on these policy and legal requirements, the Magingo Authorised Association (AA) tha comprises of the eight villages (Mirui, Naujombo, Kimambi, Barikiwa, Chimbuko, Milembwe, Ndapata and Mpigamiti) and that is responsible for the Liwale Wildlife Management Area (LWMA) organized a workshop in January 2008 to analyse information data sheet of the prospective WMA and develop the RMZP. In 2010, following persistent boundary conflict between Selous Game Reserve and Kikulyungu Village (suspended member of Magingo AA), additional information regarding the status of the conflict and position of the two parts was provided through the Wildlife Division-Ministry of Natural Resources and Tourism and actual boundary line according to GNs was provided by the Survey and Mapping Division-Ministry of Land. Thus this document is a result of the workshop organised by the Magingo Authorised Association and supplement information from The Survey and Mapping Division-Ministry of Land and directives from the Wildlife Division-Ministry of Natural Resources and Tourism.

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

Therefore during the development of the RMZP the local authority 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 was to identify the planning and management issues that would be addressed in the RMZP. Based on the information data sheet analysis, stakeholders identified the following major management problems:

- Inadequate conservation awareness amongst the local population;
- Tree felling and charcoal burning;
- Inadequate funding;
- Poor infrastructure;
- Property damage by wildlife;
- Poaching; and
- Wildfires.

The second step was to identify outstanding resources 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. Based on the information data sheet analysis, the following five outstanding resources values of the LWMA were identified:

- Revenue from tourism, photographic and hunting activities;
- Wilderness character of the area;
- Variety of wildlife, including birdlife; and
- Refugee for wildlife of the adjacent core protected areas

Defining vision was the next stage of the planning process. In the participatory workshop, vision was defined as the reason or reasons for which the area was set aside and exists as a proposed Wildlife Management Area. Stakeholders agreed the following vision “LWMA is “integrated, well managed and self-financing protected area in which nationally-important biodiversity is protected, essential ecological processes are sustained and local people and stakeholders fully support and tangibly benefit from wildlife conservation efforts in the area”.

Having defined the vision for which the LWMA should be established, the stakeholders defined the significance of the LWMA. Together with vision, significance established the framework on which the RMZP was based. The LWMA is significant because it is one of the most important WMA in Tanzania with vital potentials to generate revenue from tourism, photographic and hunting activities for the development of the villages.

Together with the analysis of the information data sheet, the Wildlife Conservation (Wildlife Management Areas) Regulation, 2002 requires villages 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/or cannot occur in each area of the prospective WMA, the rationale behind each decision on uses and levels of developments and it sets the limits of acceptable use and change.

The following three management zones for the LWMA were developed:

- Nachengo Tourist Hunting Zone (NTHZ);
- Hokororo Tourist Hunting Zone (HTHZ);
- Naimba Plain Tourist Hunting Zone (NPTHZ);
- Kiurumila Photographic Safari Zone (KPSZ); and
- Namawe Resident Hunting Zone (NRHZ).

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

In order to implement the management zone scheme stakeholders developed the following four programs:

- 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 LWMA 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 aims at increasing efficiency and effectiveness of the LWMA operations through the provision of relevant facilities, infrastructure and training to LWMA staff. The program shall also implement activities for coordinating 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 are improved and maintain. Improved relationship would guarantee sustained conservation support from the local people of the three villages.

- Natural resources management program

Natural resources management program is aimed at protecting biodiversity and entire ecosystem. Also the program is aimed at ensuring that natural resource data is available for making rational management decisions.

Under each program, overriding principles that would be used to implement and monitor the program are described. Also objectives, target and activities for each target are described for each program.

The last but one chapter is Environmental Assessment (EA) of RMZP. Environmental assessment of the proposed actions indicated that in a short-term the LWMA 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 LWMA shall benefit financially from increased income resulting from diversified visitor uses and other revenue generating activities like hunting. In a short-term, establishment of campsites and development of new road network shall also adversely affect the biophysical resources and the entire ecosystem. The RMZP proposes Environmental Impacts Assessment (EIA) for all new physical developments in the LWMA, 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;
- Formation of RMZP implementation team;
- Development of annual operation plan and budget;
- Purchase of essential movable and fixed assets; and
- Ensure that staffs of the Magingo AA are trained and ready to implement the RMZP.

# 1. BACKGROUND INFORMATION

## 1.1 Introduction

The first Wildlife Policy of Tanzania was adopted in 1998, and revised in 2007. 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 inside village lands. The policy also aims at resolving conflicts between local people and wildlife authorities, sharing information and improving livelihoods of local community through wildlife management programs.

In order to support the implementation of the Wildlife Policy, 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 used to establish and manage Wildlife Management Areas (WMAs) in the pilot districts of Tanzania. Liwale 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 on these policy and legal requirements, a Resource Management Zone Plan was developed through the support from GTZ. Due to some reasons the zone plan could not be approved by the Ministry of Natural Resources and Tourism. In 2008 the Authorised Association (AA) of the eight villages (Mirui, Naujombo, Kimambi, Barikiwa, Chimbuko, Miembwe, Ndapata and Mpigamiti) responsible for the LWMA organized a workshop in January 2008 to develop the RZMP for LWMA. In this workshop, Kikulyngu Village (suspended member of MAGINGO AA) also participated. The objective of the workshop was to:

- Magingo AA to become familiar with the WMA;
- Undertake problems and threats analysis for LWMA;
- Identify resources values of the LWMA;
- Define purposes and significance of the LWMA;
- Define the desired future for the LWMA;

- Develop Management Zone Scheme (MZS) and Resource Management Zone Plan (RMZP) for the LWMA;
- Prepare management programs; and
- Develop environmental statements.

In 2010, following persistent boundary conflict between Selous Game Reserve and Kikulyungu Village (suspended member of Magingo AA), additional information regarding the status of the conflict and position of the two parts was provided through the Wildlife Division-Ministry of Natural Resources and Tourism and actual boundary line according to GNs was provided by the Survey and Mapping Division-Ministry of Land. Thus this document is a result of the workshop organised by the Magingo Authorised Association and supplement information from The Survey and Mapping Division-Ministry of Land and directives from the Wildlife Division-Ministry of Natural Resources and Tourism.

## **1.2 Vision**

The vision of the LWMA 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”.

## **1.3 Importance of the Resource Management Zone Plan**

This RMZP is a document that sets for the basic management and development philosophy of the Liwale Pilot WMA, provides current image of the reality, defines the desired future of the Liwale 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, LWMA managers and stakeholders were able to identify problems, envision the future under past trends and existing conditions 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 limited resources in the eight villages.

Without a RMZP, it would be very difficult to achieve sustainable conservation of the LWMA, 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 LWMA.

#### **1.4 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.

##### **1.4.1 The Tanzania Development Vision 2025**

The Tanzania Development Vision 2025 is an economic and social development vision, which emanates from reforms that have been pursued since 1986. The vision is a result of public participation in the process, which was begun in 1995. The Vision is aimed at three main target areas:

<b>Achievement</b>	<b>Strategies and Characteristics</b>
<i>High quality livelihood</i>	Self sufficiency in food and food security, a high degree of education at all levels, gender equality and feminine empowerment, access to quality health care and safe water, increased life expectancy, reduction in infant and mortality rates and the absence of abject poverty.
<i>Good governance and the rule of law</i>	Tanzanian society should be characterised by moral and cultural uprightness, strong adherence to - and respect for - the law, an absence of corruption and other vices
<i>A strong and competitive economy</i>	A diversified and semi-industrialised economy, macro-economic stability, a growth rate of 8% or more per annum, a physical infrastructure capable of coping with the vision requirements. Finally Tanzania should be an active and competitive player in the regional and world markets.

#### **1.4.2 The National Strategy for Growth and Poverty Reduction**

The National Strategy for Growth and Poverty Reduction (NSGRP) or MKUKUTA is a revised version of the Poverty Reduction Strategy of 2000. The Strategy has three main outcomes and number of goals within each of these.

Growth of income and the reduction of poverty	<ul style="list-style-type: none"> <li>• To ensure sound economic management</li> <li>• To promote sustainable and broad-based growth</li> <li>• To improve food availability and accessibility</li> <li>• To reduce income poverty of both men and women in urban areas</li> <li>• To provide reliable and affordable energy to consumers</li> </ul>
Improved quality of life and social well-being	<ul style="list-style-type: none"> <li>• To ensure equitable access to quality primary and secondary education for boys and girls, universal literacy among men and women, and expansion of higher, technical and vocational education</li> <li>• To improve the survival, health and well-being of all children and women and of specially vulnerable groups</li> <li>• To ensure access to clean, affordable and safe water, sanitation, decent shelter and a safe and sustainable environment. This will reduce vulnerability to environmental risks</li> <li>• To ensure adequate social protection and the provision of basic needs and services for vulnerable people</li> <li>• To ensure effective systems that allow access for all people to quality and affordable public services</li> </ul>

<p>Good governance and accountability</p>	<ul style="list-style-type: none"> <li>• To ensure that structures and systems of governance as well as the rule of law are democratic, participatory, representative, accountable and inclusive</li> <li>• To ensure equitable allocation of public resources - with corruption effectively addressed</li> <li>• To put in place an effective public service framework as a foundation for service delivery improvements and poverty reduction</li> <li>• To ensure that the rights of poor and vulnerable groups are protected and promoted in the justice system</li> <li>• To reduce political and social exclusion and intolerance</li> <li>• To improve personal and material security, reduce crime and eliminate sexual abuse and domestic violence</li> <li>• To enhance and promote national cultural identities</li> </ul>
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### 1.4.3 Rural Development Strategy

The Rural Development Strategy (RDS) provides 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.

### 1.4.4 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.

### 1.4.5 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.

### 1.4.6 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.

#### **1.4.7 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 areas 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.

#### **1.4.8 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. Similarly, the *Mineral Act* (1998) which require license holders to take all appropriate measures for the protection for the environment including the wetlands.

#### **1.4.9 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.

#### **1.4.10 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.

### **1.5 Planning Process and Constraints**

#### **1.5.1 Planning Process**

Through a support from the Liwale District Wildlife Office, the Authorised Association (AA) of the eight villages (Mirui, Naujombo, Kimambi, Barikiwa,

Chimbuko, Milembwe, Ndapata and Mpigamiti) responsible for the LWMA identified a need to develop a RMZP. 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 LWMA 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 LWMA;
- Policy and legal frameworks that govern the WMAs; and
- Constraints to the implementation of the RMZP.

Subsequently the Magingo AA organized two technical workshops comprising of the district government officials and the AA Members on 14<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> January 2008 to develop the RMZP for the LWMA. Also representatives from the local government, Non Governmental Organisations (NGOs) and other stakeholders participated in the workshops. Additional Information regarding the status of boundary conflict between Selous Game Reserve and Kikulyungu Village (suspended member of Magingo AA) was provided by the Wildlife Division - Ministry of Natural Resources and Tourism and The Survey and Mapping Division-Ministry of Land. The RMZP was the major output of the consultative meetind, workshops, information and/or directives from the Wildlife Division-Ministry of Natural Resources and Tourism.

### **1.5.2 Planning Constraints**

Before defining the specific management objectives for the LWMA the constraints on its management and any other major threats to the area's values was identified. Constraints may take different forms such as legal obligations, constraints of tenure, prior usage of land, health and safety considerations, managerial constraints, obligations to neighbors and visitors, international obligations and other policy considerations.

The planning process recognized and took into account the constraints to the development and subsequent implementation of the RMZP. The Chapter on Plan of Actions has proposed mechanisms that would reduce the adverse effects of these limitations. These mechanisms would minimize the risks and threats that may lead to failure in implementing the RMZP.

- 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 guided by these Regulations.

- 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 would 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.

- Socio-economic constraints

Previously each of the nine villages forming the Magingo AA had a quota for resident hunting. With LWMA, all the villages will conduct resident hunting in the designated zone only. Some villages are located far away from this zone while others are near the area, situation which makes the far away village to access the resident hunting zone with some difficult.

## 2. ANALYSIS OF THE INFORMATION DATA SHEET

This chapter presents results of the examination of the information data sheet of the prospective Liwale 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 LWMA. The existing conditions are described in terms of the following aspects:

- Background information about LWMA;
- Problems, concerns or issues;
- Outstanding resources and values of the LWMA;
- Existing purposes of the LWMA; and
- Existing significance of the LWMA.

### 2.1 Background Information

LWMA is located at latitude 37° E and 38.30° E, longitude 9° S and 10° S in Liwale district, Lindi region. The size of LWMA is 3,441.95 km<sup>2</sup> (Table 1). According to National human population census (Census, 2002), the population for the eight villages was about 22,000 people. Three hunting blocks exist for tourist and resident hunting, namely Liwale North (H 244974), Liwale South (H 149738) and Resident Hunting (H 68768).

**Table 1: Size of Liwale WMA, Land Contribution by Villages to the WMA and Other Land Uses in the Village Land**

Village	Area (km <sup>2</sup> )				% WMA contribution
	Wildlife Management Area	Village Forest Reserve	Other Land Uses	Total	
Mirui	61.57	484.57	9.92	556.06	1.79
Naujombo	400.54	386.93	12.41	799.88	11.64
Kimambi/ Barikiwa/ Chimbuko	1605.26	1,453.90	86.90	3,146.06	46.63
Mlembwe	81.87	358.54	13.64	454.04	2.38
Ndapata	946.10	396.93	5.50	1,348.53	27.48
Mpigamiti	347.07	626.18	17.46	990.71	10.08
<b>Total</b>	<b>3442.41</b>	<b>3,707.05</b>	<b>145.83</b>	<b>7,295.33</b>	<b>100</b>

### 2.2 Analysis of 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 planning and zoning efforts.

Workshop participants identified specific issues facing proposed Liwale 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 through participator workshop involving the MAGINGO AA members and the Liwale District Council representatives resulted in the identification of the following problems, in terms of priority:

- **Communication**

Communication is a key in conservation management and development. LWMA is situated in very remote part of Tanzania. Roads that link the area to Liwale town, Nangurukuru Township, villages bordering LWMA and other nearby towns are not in good conditions. It is difficult to move out of the area during the rain season. The road network inside the LWMA is also very limited. Management and administration of the LWMA would be complicated by limited roads and poor road network within the LWMA as well as the inadequate access to the area from nearby villages and towns.

Telecommunication was equally an important problem mentioned by stakeholders of the LWMA. Only limited coverage of mobile phones exists in the LWMA. Stakeholders felt that law enforcement operations in and outside LWMA would be difficult without effective telecommunication.

- **Water shortage**

Weather has changed over the years in and around LWMA. Drought has become a normal phenomenon than an exception. Poor water infrastructure compounds problems that are caused by inadequate rainfall in the area. People, livestock, crops and wildlife suffer severely as the result of drought in the area. Severe drought adversely affects crops that in turn affect the local economy in and around LWMA. Poor economy directly caused destruction of natural resources in the area. Liwale River, one of the major sources of water in the area with its source at Mpigamiti village is drying due to extensive cutting of trees at its catchments. Deforestation and siltation are the major cause of drought of the river.

- **Shifting cultivation**

Agriculture has become one of the major sources of economy for the people around LWMA. There are potentials for large-scale agriculture in certain areas of LWMA. Cashew nut, Cassava, Pigeon pea, Beans and Maize are the main crops in the area. Agriculture and wildlife management are not fully compatible. Wildlife cannot distinguish crops from natural pasture for wildlife. The major cause of wildlife-people conflicts is crop damage by wildlife because of incompatibility of the two land uses.

- Lack of conservation awareness

Conservation skills, knowledge and attitude are inadequate amongst the Village leaders. In order to ensure effective and efficient management of LWMA village leaders may require adequate wildlife conservation and management training. It was evident during the workshop that majority of the problems facing LWMA 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 LWMA due to lack of necessary working tools.

- Tree felling and charcoal burning adjacent LWMA

Trees are the most important source of building materials and energy for the local communities of the nine villages. Regeneration of trees in the LWMA is slowed due to excessive tree felling and grazing in the area. Demands for trees have also increased as a result of lack of alternative sources of energy and building materials. The major problems are shifting cultivation, building materials, charcoal and the biggest is illegal and legal timbering.

- Inadequate funding

Funding for management of the LWMA is inadequate. Income that is generated from the Licences Fees and 25% Game Fees is inadequate to support WMA operations and support village developments. Also revenue that is generated from wildlife utilisation in the district is shared amongst the villages in the entire district. Good amount of revenue goes straight to the central government. Other tourism initiatives that are being exercised in the LWMA do not produce tangible benefits due to inadequate wildlife entrepreneurial skills, knowledge and attitudes of the village governments.

- Property damage by wildlife

Local community properties, mostly crops, were being frequently raided by wildlife from LWMA or nearby conservation areas. Elephant is the major wildlife species which causes crop damage. Also there were incidences whereby Lions cause damages to livestock in areas around the LWMA. 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. Elephants, Vervet Monkeys, baboons, Warthog, and birds cause the biggest crop loss in areas adjacent LWMA. The problem that used to exist is human killed by lions. This problem has abated recently.

- Unskilled labour

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

- Poaching

Illegal collection of resource inside the LWMA 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. Elephant, Buffalo, Hartebeest, Greater Kudu, Wildebeest, Eland, Sable Antelope and Warthog, Bush pig, Red Duiker and Impala are the mostly affected mammals. Also Game Birds are poached through the use of nets. Rifle, wire snares and shot guns and muzzleloaders are used to kill mammals in the LWMA. Majority of poachers come from Liwale town and all other villages. Kichonda (outside AA), Kimambi, Mpigamikti, Kikulyungu (outside AA), Barikiwa, Merui and Ujombo and Mkutano (outside AA) are major sources of Elephant poaching. Some Elephant tasks were confiscated in the area in 2007. It was not clearly established where the tasks emanated from. Nonetheless this could be an indicator of existence of commercial poaching of wildlife products in the area.

- Wildfires

Wildfires occur frequently inside the LWMA. The major causes of wildfires in the areas are charcoal producers and honey gatherers. Less often tourist in the areas surrounding the LWMA and people passing through the Liwale-Nangurukuru main road accidentally cause wildfires. Wildfires have overwhelming effects on the biodiversity and ecology of the LWMA when occur at wrong season and magnitude. The areas most affected yearly include Kimambi, Mpigamiti, Merui and Naojombo. Fire prolongs life. Major causes of fires are honey gathering, clearance for cultivation, and local beliefs.

- Liwale/Kilwa district border disputes

There is a dispute between Liwale and Kilwa districts over certain area between the LWMA. The area is very rich in wildlife and villagers felt that the area belongs to the villages and not the Wildlife Division under the Selous Game Reserve. Matandu river border is under some disputes. The Selous Game Reserve cleared the borders that include the river as part of the Game Reserve.

- Decreased number of wildlife in the area

Information from local people indicated that the numbers of wildlife has decreased in the area. The major cause of decrease is poaching. Majority of the local people that were interviewed during the preparation of the RMZP had the views that wildlife numbers in the areas had decreased over the years.

- Inadequate working tools and equipment

Wildlife management is a tools and equipment intensive profession. Village governments had no money to invest in wildlife management tools and equipment. Poaching and other problems were evident because village governments could not afford to purchase necessary tools and equipment to combat poaching.

- Poverty and ignorance

Poverty of all kinds is evident in the area. Income poverty, diseases and hunger force the local people in the area to engage in illegal wildlife exploitation for food and income. Ignorance is also common in the area. Inadequate knowledge on values of conservation necessitates certain people to cause unnecessary problems to the wildlife conservation authorities in the area.

### **2.3 Analysis of 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 LWMA:

- 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 LWMA:

- Natural dams

Stakeholders recognised natural dams as major sources of water and thus major source of water for wildlife. Hokororo dam near Mlembwe village, Kiurumira, Chindo, Panda la Nyama, Ligondalima, Nachengo, Likale, Tanda la Mngoni, Nakaumbi and Namatanda are the most significant dams in the area.

- Mountains

There are outstanding mountain features in the LWMA. Kiiimbunda, Nandenyende and Tumbi provide outstanding scenic values to the LWMA.

- Forests

Mbweo, Kitako, Kihani, Kingoli, Mtondo, Namawe, Liboya, Likulilo, Kiperere, Ndungutu, Mpopo, Mtatali, Lioto, Likuba and Namuhu forests provide outstanding attractions and for would visitors in the area. Also forests provide unique habitat for wildlife in the area.

- Unique vegetation and trees

Unique and abundance of certain tree species give LWMA unique scenic values. Baobab, Hyphaene, African Blackwood and Acacia tree species are abundant in the area. The area contains one of the most unique vegetation communities, the Miombo woodland. Other significant tree species include *Mkongo*, *Msufi Mwituu*, *Mpangapanga*, *Mkwaju*, *Nkiu*, *Mmanga*, etc.

- Wildlife

Variety of wildlife species exist in the area. Birds, reptiles, and mammals of different kind exist in the LWMA. Also this area is an important corridor for wildlife wondering around the Liwale riverine ecosystem. Significant wildlife species include Elephant, Lion, Leopard, Zebra, Buffaloes, Eland, Hartebeest and Wildebeest. Rare and threatened wildlife species include Pangolin, Wild Dogs and Greater Kudu.

- Rivers

Rivers provide life in the area. Liwale and Matandu rivers are the most important sources of water for wildlife and people in the area. Other rivers include Mlembwe, Tandamanga, Ndapata, Mirui, Nakiu, Mange, Umira and Matepwende.

- Adjacency to Selous Game Reserve

Selous Game Reserve borders LWMA. Selous is the biggest conservation area in Africa covering more than 55,000 km<sup>2</sup>. Wildlife move freely between LWMA and the Selous.

- Other outstanding features

Michuyo and Nganga plains provide unique site for game viewing. Litwiula springs, Lichella escarpment and Narungombe rock are some of the unique features in the area. Hunting road network, hunting camps and an airstrip exist in the area. Mikukuyumbu and Lipindula cemetery are associated with wars that were fought between Germans and tribal people in the area. Other features though outside the WMA area are of historical values and stand to be attractions for visitors visiting Liwale district in which the Liwale WMA falls. These include ruins of German colonial fort at Liwale town, German Colonial Court at Chimbuko village and ruins of German rest house at Mpigamiti village.

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 LWMA purposes and significance, formed the basis for identifying the area's primary interpretive themes, and helped set the parameters for developing management zones.

#### **2.4 Analysis of LWMA 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 problems and outstanding resource values, 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 LWMA:

- LWMA 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;
- LWMA is one of the biggest WMA in Tanzania;
- It is the only area in the district with highest concentration of wildlife; and
- LWMA is one of the WMA with highest density of Elephants and Buffaloes in Tanzania.

### 3. MANAGEMENT ZONE SCHEME

Management zoning is defined as a planning procedure used for appraising and categorizing protected area lands. The management zoning scheme that is proposed for the LWMA assigning where various management schemes 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 LWMA. The difference in the types and levels of use as well as the types and levels of physical development makes a distinction of one management zone from another.

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

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 Resource Zone Management Plan are based on different management importance. During the development of the management zone scheme, primary consideration was given but not limited to the following criteria:

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

The following five management zones for the LWMA (Figure 1) were developed:

- Nachengo Tourist Hunting Zone (NTHZ);
- Hokororo Tourist Hunting Zone (HTHZ);
- Naimba Plain Tourist Hunting Zone (NPTHZ);
- Kiurumila Photographic Safari Zone (KPSZ); and
- Namawe Resident Hunting Zone (NRHZ).

Below is a description of each management zone of the LWMA. 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.

Only permissible and prohibited activities were outlined for each zone.

#### 4.1. Nachengo Tourist Hunting Zone (854.33km<sup>2</sup>)

<b>Rationale for the zoning</b>	To protect outstanding resources values and generate income from different forms of tourism include hunting.	
<b>Resources and value</b>	Variety of wildlife species, include Elephants and Buffaloes. Other outstanding resource values include river and mountain systems.	
<b>Description of Boundaries</b>	Liwale-Njenje road that goes to Morogoro. Mpigamiti village on the South and Ndapata village on the East. Selous Game Reserve is on west and north of this zone is North-West Hunting Tourist Zone.	
<b>Allowed Uses</b>	<b>Uses</b>	<b>Limits of Acceptable Use</b>
	1.Tourist hunting	1 hunting company
	2.Hunting camp	1 hunting camp (Likale)
	3.Bee keeping	Off-hunting season
	4.Walking safaris	Off-hunting season
	5.Camp Sites	2 Camp Sites (Mtumba river, Nailala river)
<b>Prohibited Uses</b>	1.Mining	
	2.Fishing	
	3.Resident hunting	
	4.Charcoal burning	
	5.Construction of houses	
	6.Tree felling	

<b>Other Conditions</b>	<ul style="list-style-type: none"> <li>All conditions imposed by the Wildlife Management Area Regulations and Wildlife Conservation Act, Forest Act, Tourism Act</li> <li>All conditions imposed by bylaws</li> </ul>
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#### 4.2. Hokororo Tourist Hunting Zone (914.60 km<sup>2</sup>)

<b>Rationale for the zoning</b>	To protect outstanding resources values and generate income from different forms of tourism include hunting, fishing, and tourist camping and walking safaris.	
<b>Resources and value</b>	Variety of wildlife species, include Elephants and Buffaloes. Other outstanding resource values include river and mountain systems. Other significant features include the Hokororo dam and the airstrip at Kinjacha	
<b>Description of Boundaries</b>	Liwale-Njenje road on the South. Selous Game Reserve is on the north west. South East borders Barikiwa village. East is Liwale-Luwele inside the Selous Game Reserve	
<b>Allowed Uses</b>	<b>Uses</b>	<b>Limits of Acceptable Use</b>
	1. Tourist hunting	1 hunting company
	2. Hunting camp	1 hunting camp (Naikoba)
	3. Fishing	Off-hunting season
	4. Walking safaris	Off-hunting season
	5. Camp sites	2 camp sites (Kinjacha, Horororo)
<b>Prohibited Uses</b>	6. Canoeing	10 packs a day (off-hunting seasons)
	1. Mining	
	2. Charcoal burning	
	3. Construction of houses	
	4. Tree felling	
<b>Other Conditions</b>	5. Resident hunting	
	<ul style="list-style-type: none"> <li>All conditions imposed by the Wildlife Management Area Regulations, Fisheries Act.</li> <li>All conditions imposed by bylaws</li> </ul>	

#### 4.3 Naimba Plain Tourist Hunting Zone (400.86 km<sup>2</sup>)

<b>Rationale for the zoning</b>	To protect outstanding resources values and generate income from different forms of tourism include beekeeping, hunting, fishing, tourist camping, photographic safaris and walking safaris.	
<b>Resources and value</b>	Variety of wildlife species, include Elephants and Buffaloes. Other outstanding resource values include river and mountain systems. Other significant feature includes the Naomba plains.	
<b>Description of Boundaries</b>	West is Liwale-Luwele road inside the Selous Game Reserve. South is Chimbuko and Likulyungu villages. North is bordering the Selous Game Reserve. East is Liwale-Kingupira road.	

<i>Allowed Uses</i>	<i>Uses</i>	<i>Limits of Acceptable Uses</i>
	1.Tourist hunting	1 hunting company
	2.Hunting camp	1 hunting camp (Chindo)
	3.Photographic safari	1 company at a time, off-hunting season
	4.Walking safaris	Off-hunting season
	5.Camp site	3 camp sites (Naimba, Michuyo, Nammanga)
	6.Bee keeping	Off-hunting season
<i>Prohibited Uses</i>	1.Mining 2.Charcoal burning 3.Construction of houses 4.Tree felling 5.Resident hunting	
<i>Other Conditions</i>	<ul style="list-style-type: none"> <li>All conditions imposed by the Wildlife Management Area Regulations</li> <li>All conditions imposed by bylaws</li> </ul>	

#### 4.4. Kiurumila Photographic Safari Zone (1004.76 km<sup>2</sup>)

<i>Rationale for the zoning</i>	To protect outstanding resources values and generate income from different forms of tourism include beekeeping, tourist camping and game viewing, lodging, photographic safaris and walking safaris.	
<i>Resources and value</i>	Variety of wildlife species, include Elephants and Buffaloes. Other outstanding resource values include river and mountain systems.	
<i>Description of Boundaries</i>	West of Liwale-Kingupira road. North is Selous Game Reserve. South Kikulyungu and Kimambi village. Umira river forms the very south border. Kilwa district (Zinga village) forms the eastern border of the zone.	
<i>Allowed Uses</i>	<i>Uses</i>	<i>Limits of Acceptable Use</i>
	1.Photographic safari	One safari company at any given time
	2.Animal capturing	Based on permit issues by Wildlife Department
	3.Lodging	1 (Jiwe Jeupe)
	4.Walking safaris	One safari company at any given time
	5.Camp sites	3 camp site (Kipindimbi, Mmandula, Tumbi)
	6. Fishing	According to the fisheries regulations
	7.Bee keeping	According to bee keeping regulations

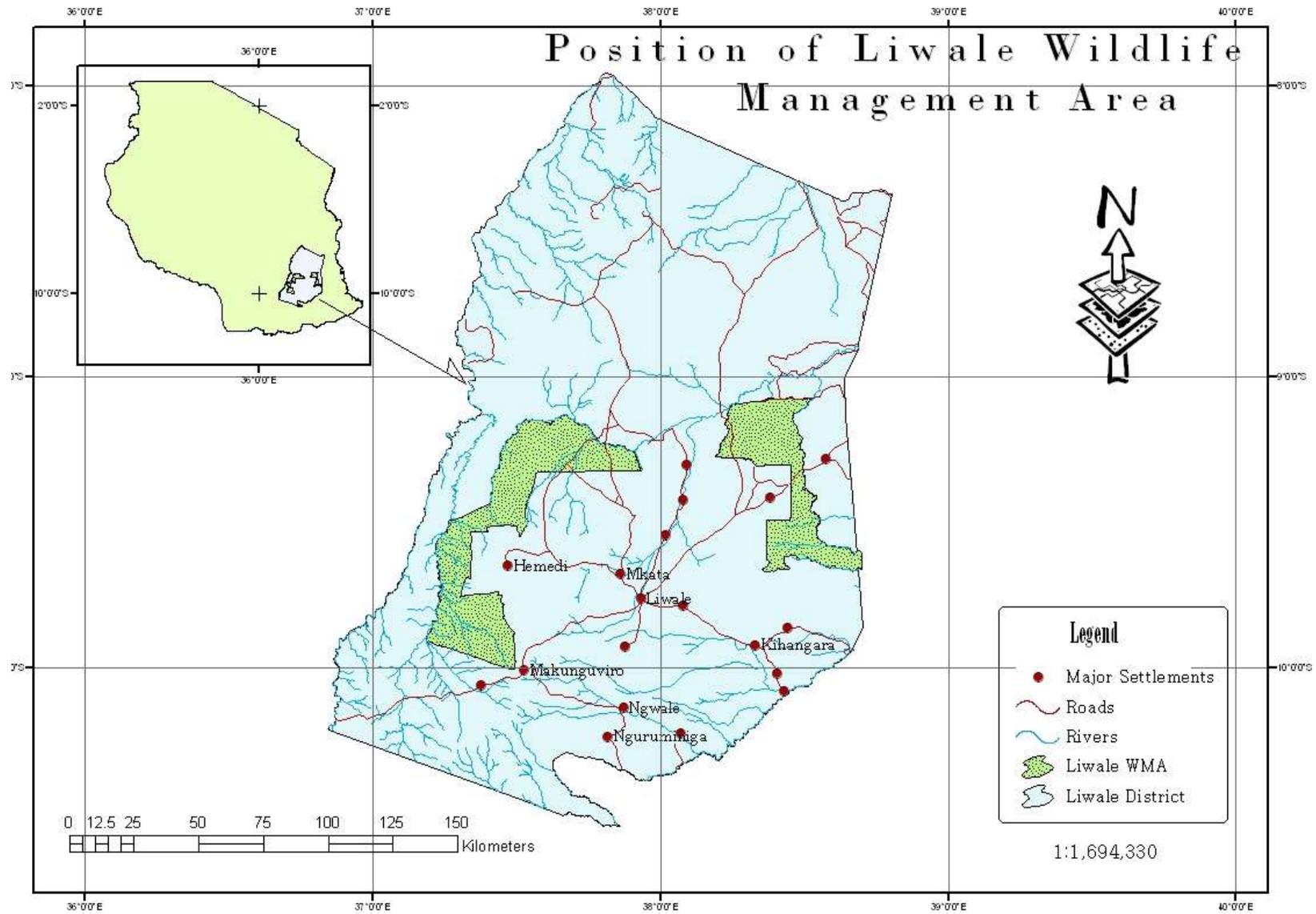
<b>Prohibited Uses</b>	1.Tourist hunting
	2.Mining
	3.Charcoal burning
	4.Construction of houses
	5.Tree felling
	6.Resident hunting
<b>Other Conditions</b>	<ul style="list-style-type: none"> <li>All conditions imposed by the Wildlife Management Area Regulations, Fisheries Act</li> <li>All conditions imposed by bylaws</li> </ul>

#### 4.5. Namawe Resident Hunting Zone (267.86 km<sup>2</sup>)

<b>Rationale for the zoning</b>	To protect outstanding resources values, generate income and receive proteins from different activities include beekeeping, resident hunting, and fishing, tourist camping and walking safaris.	
<b>Resources and value</b>	Variety of wildlife species, include Elephants and Buffaloes. Other outstanding resource values include river and mountain systems.	
<b>Description of Boundaries</b>	Umira river is on the north. Kilwa district (Nanjilinjji) is on the eastern part of the zone. Kiperere Forest Reserve, Naujombo and Mirui villages forms the western border of the zone.	
<b>Allowed Uses</b>	<b>Uses</b>	<b>Limits of Acceptable Use</b>
	1.Resident hunting	Based on permit issued by district offices
	2.Fishing	Based on permit issued by district offices
	3.Bee keeping	Off hunting season
	4.Walking safaris	One company at any given time
	5.Camp sites	3 camp sites (Umira, Nandeng'ende, Nakiu)
<b>Prohibited Uses</b>	1.Mining	
	2.Charcoal burning	
	3.Construction of houses	
	4.Tree felling	
	5.Tourist hunting	
<b>Other Conditions</b>	<ul style="list-style-type: none"> <li>All conditions imposed by the Wildlife Management Area Regulations</li> <li>All conditions imposed by bylaws</li> </ul>	

#### 4.4. Identification and Implementation of Zones on the Ground

Boundaries were identified based on distinct physical features on the ground. Law enforcement officers would be familiarised with these features that distinguish one zone from another. Beacons shall be installed in areas where distinct physical features could not be established.



**Figure 1: Location of Liwale Wildlife Management Area**

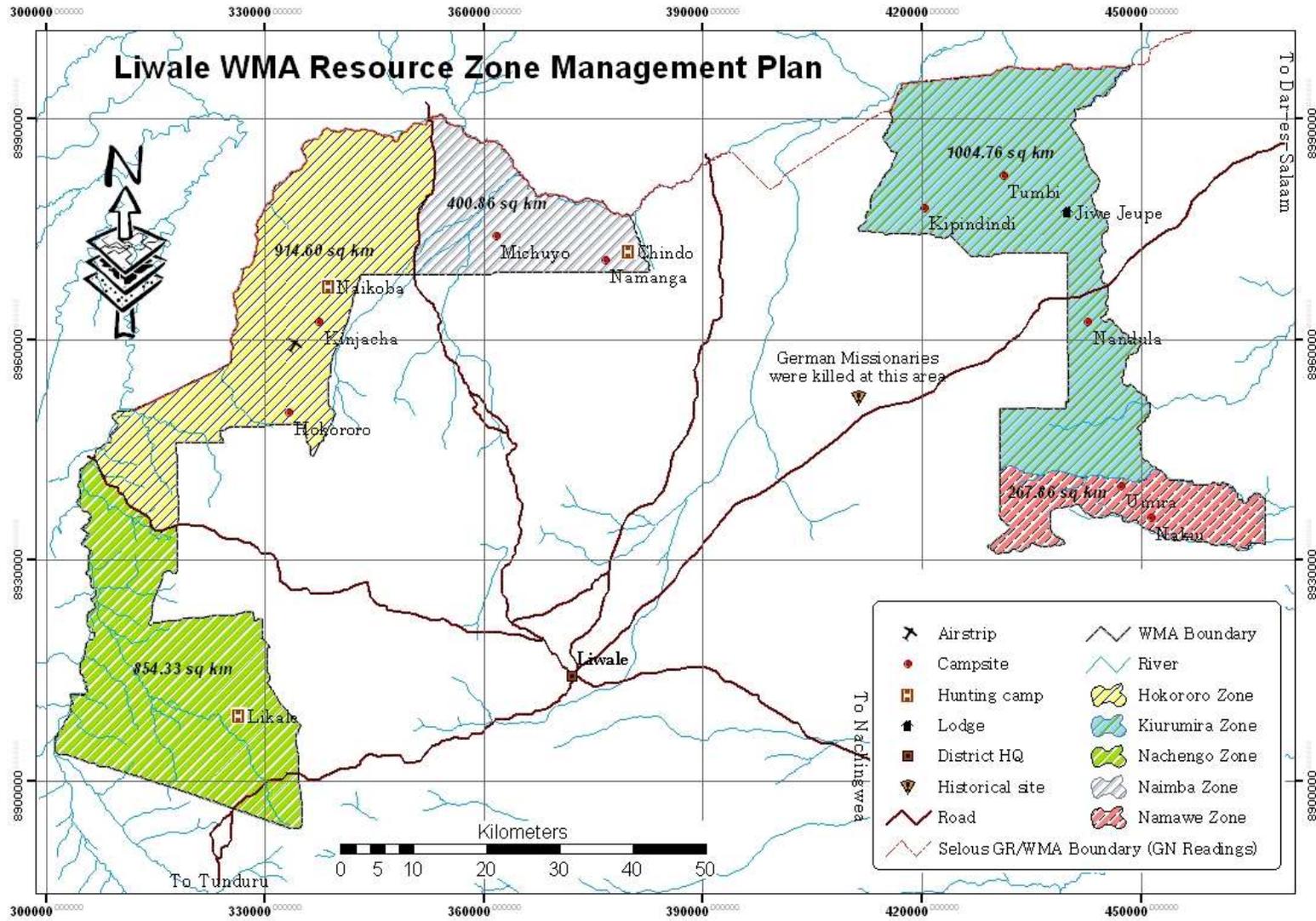


Figure 2: Management Zone Map for Liwale Wildlife Management Area

#### **4. LIWALE WMA MANAGEMENT PROGRAMS**

This chapter describes specific management programs, principles, objectives and actions to be undertaken to achieve objectives of the RMZP 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 LWMA. The LWMA 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).

The LWMA 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, and not how and when these activities will be implemented. Details on how and when these activities will be conducted shall be contained in the AOPB. More commonly, the information in this section may not be detailed (Thomas & Middleton, 2003). Detailed description of the management programs assist on-site LWMA managers in better understanding of what the RMZP demands from them over a period of five years. Also detailed description of the program normally helps ease development and implementation of AOPB. AOPB shall contain detailed annual activities and financial plans or budgets. However detailed description of activities, in terms of how and when each activity shall be implemented, will be considered during the development and implementation of a General Management Plan (GMP).

#### **4.1. Visitor use, Development and Revenue Program (VUDRP)**

##### **4.1.1 Program Purpose**

The purpose of this program is to enhance visitor enjoyment and satisfaction and generate revenue that would raise and sustain funding for LWMA through non-consumptive and consumptive tourism, through rational use and allocation of revenue generated from the area and through sustained support from stakeholders.

##### **4.1.2 Tourism Development and Revenue Principles**

In the next five years the LWMA shall implement VUDRP whilst adhering to the following main principles:

- Principle of integrating tourism into sustainable development programs  
The LWMA shall strive to ensure that national policies and strategies on sustainable development are integrated into the implementation of VUDRP. Also efforts to reconcile conflicting resource uses inside the WMA shall be speeded up and strengthened in order to ensure sustainable visitor development.

- Principle of development and management of sustainable tourism  
Planning is the key to the sustainable tourism. In the next five years the LWMA management shall endeavour to ensure that tourism and ecotourism products are accurately identified and tourism plans are designed, appraised, monitored and evaluated for sustainability. Environmental Impact Assessment (EIA) shall be part and parcel of the development of tourism in the LWMA. Also tourism and ecotourism developments shall take into account the developments and land uses at sub-regional and sub-national levels. Care shall always be taken to make sure that development of tourism in the sub region complies with Government laws and regulations. Use of technology shall be encouraged to ensure that efficiency and effectiveness in managing tourism is guaranteed.

- Principle of successful tourism program  
In order to succeed in the implementation of the VUDRP involvement of key stakeholders, information exchange and capacity to manage tourism is the key. The LWMA shall endeavour to involve key stakeholders at every stage of development and implementation of VUDRP. Also the LWMA shall strive to build and maintain the capacity to manage VUDRP. Information exchange on lesson learned would be encouraged in order to improve the implementation of VUDRP.

- Sustainable funding  
Sustainable funding is simply the amount of money LWMA need to provide and sustain a particular level of services over time. It is important to appreciate that sustainable funding does not mean enough money to publicly fund all the community services that WMA should be providing. It is the responsibility of local community to establish what they believe is an appropriate and affordable level of publicly funded services and then to work out how much money is required over time to sustain that particular level. Also local government would need to make sure that the community understood and appreciated that the need to set a funding level inevitably would result in a degree of rationing, the extent of which would be determined by the level at which the sustainable funding path was set. Likewise any policy would need to provide the AA with a mechanism to cope with pressures on funding, reacting to those pressures in a planned, rather than an unplanned, manner; and any policy would need to provide confidence to the AA and local communities that the policy settings were

appropriate and able to be met within the parameters set by the sustainable funding framework.

#### 4.1.3 Program Objectives, Targets and Activities

This sub chapter outlines a summary of VUDRP objectives, targets and activities.

<b>Objective 1: To increase and sustain financial contribution of the LWMA to the village governments by 400% by 2012</b>	
Target 1.1 Income from ecotourism, including hunting, stand at Tshs 100,000,000 per annum by 2011	Activity 1.1.1 Develop a framework for tourism concessions and contracts
	Activity 1.1.2 Develop and implement ecotourism entrepreneurial plan
	Activity 1.1.3 Recruit and train project and ecotourism manager to operate VUDRP
	Activity 1.1.4 Introduce ecotourism opportunities based on the management zone scheme
	Activity 1.1.5 Develop and implement marketing plan
Target 1.2 Income from non ecotourism sources stand at Tshs 1,000,000,000 per annum by 2012	Activity 1.2.1 Design and implement conservation projects and funding projects for LWMA
	Activity 1.2.2 Recruit and train project and ecotourism manager to implement conservation projects
	Activity 1.2.3 Develop and implement financial monitoring and evaluation plan
	Activity 1.2.4 Develop and implement financial regulation and procedures manual
<b>Objective 2: To help tourists achieve highest possible degree of satisfaction by 2012</b>	
Target 2.1 Tourist feedback framework developed by June 2009	Activity 2.1.1 Develop tourism satisfaction indicators
	Activity 2.1.2 Develop and implement visitor satisfaction monitoring plan
	Activity 2.1.3 Develop and implement procedures for reviewing and improving tourist programs
<b>Objective 3: To ensure that ecotourism developments, including hunting, are designed, appraised, monitored and evaluated for sustainability</b>	
Target 3.1 Environmental impact management mechanisms developed/adopted by June 2009	Activity 3.1.1 Review and implement village land use plans
	Activity 3.1.2 Develop database on impact of land uses inside the LWMA
	Activity 3.1.3 Undertake training on EIA

## **4.2 Administration and Operations Program (AOP)**

### **4.2.1 Program Purpose**

The purpose of this program is to boost efficiency and effectiveness of the LWMA operations through the provision of relevant facilities, infrastructure and training to LWMA staff and management. Also the programs shall implement activities that coordinate the implementation of the RMZP.

### **4.2.2 Administration and WMA Operations Principles**

In the next five years the LWMA shall implement AOPB while sticking to the following main principles:

- Professional guidance on the management of LWMA

In the next five years the AA shall listen to and use professional guidance in the management of the LWMA. Decisions in key management areas shall strictly follow government regulations and professional guidance. However care shall be taken to ensure that guidance provided by various professionals is appropriate to LWMA real needs, in achieving results through gradual accumulation.

- Adaptive and planned management and collaboration

During the RMZP implementation period and beyond, the AA shall aim at providing services across the board, acting decisively and responding rapidly to changing management needs and circumstances. AA shall collaborate closely with other central government agencies, with local government and with specialist service agencies and other relevant authorities to ensure efficiency and effectiveness of WMA administration and operations. Also the AA shall implement its operations and programs through the development and implementation of AOPB. AOPB shall contain clear annual objectives, targets and activities. AA shall be reviewing AOPB on a regular basis to cope with changing administration and operations needs.

- Use of local and external resources for energy

The AA shall encourage making effective use of both internal and external resources to achieve synergy in administering operations of the WMA. The AA shall be open to ideas and innovations from within or outside the AA

### 4.2.3 Program Objectives, Targets and Activities

This sub chapter outlines a summary of AOPB objectives, targets and activities.

<b>Objective 1: To ensure that operations of the LWMA are efficient and effective by 2012</b>	
Target 1.1 Human resources management framework in place by June 2009	Activity 1.1.1 Develop and operationalise organisation structure to administer the LWMA
	Activity 1.1.2 Develop and implement comprehensive Schemes of Services for staff working with the LWMA
	Activity 1.1.3 Develop and implement a comprehensive Human Resource Development plan
	Activity 1.1.4 Develop and implement staff performance evaluation
	Activity 1.1.5 Recruit and deploy appropriate staff
	Activity 1.1.6 Develop and implement Human Resources Policy and Procedures
	Activity 1.1.6 Develop HIV/ AIDS Operational Procedures and Action Plan.
Target 1.2 Anti-poaching management framework developed by June 2009	Activity 1.2.1 Identify law enforcement staff and material resources need
	Activity 1.2.2 Recruit Community Scouts based on Scheme of Service
	Activity 1.2.3 Develop and implement scout training plan
	Activity 1.2.4 Develop and implement Memorandum of Understanding (MoU) to establish law enforcement network with adjacent authorities
	Activity 1.2.5 Provide law enforcement equipment and facilities
	Activity 1.2.6 Develop and implement anti-poaching schedule
<b>Objective 2: To ensure that facilities and infrastructure for LWMA operations exist and properly maintained by 2012</b>	
Target 2.1 Facility and infrastructure management framework developed by June 2009	Activity 2.1.1 Develop facility replacement and infrastructure management policy and procedures
	Activity 2.1.2 Develop and implement facility and infrastructure maintenance budget and schedules
	Activity 2.1.3 Construct water dams
Target 2.2 Adequate administration facility acquired by June 2009	Activity 2.2.1 Develop a list and prepare a budget of equipment required for efficient LWMA administration and operations
	Activity 2.2.2 Develop and submit a funding proposal to secure the needed equipment

Target 2.3 Relevant infrastructure in place and maintained by June 2010	Activity 2.2.1 Develop a list and prepare a budget of infrastructure required for efficient and effective LWMA administration and operations
	Activity 2.2.2 Develop and submit a funding proposal to secure and maintained required infrastructure
	Activity 2.2.3 Mark WMA boundaries, including zones
<b>Objective 3: Ensure that RMZP is approved and AOPB is developed and fully implemented annually by June 2008</b>	
Target 3.1 AOPB framework developed by December 2008	Activity 3.1.1 Tables the draft RMZP to the Director of Wildlife for endorsement
	Activity 3.1.2 Develop AOPB format
	Activity 3.1.3 Develop and implement Annual Operation Plan and Budget to implement the RMZP
	Activity 3.1.4 Form and operationalise RMZP implementation team
	Activity 3.1.5 Develop and implement a monitoring
	Activity 3.1.6 Resolve the border dispute between Kilwa and Liwale district on LWMA and villages
	Activity 3.1.8 Develop General Management Plan

### 4.3 Wildlife-People Relations Program (WPRP)

#### 4.3.1 Program Purpose

The program aims at supporting community livelihoods in order to ensure that the relationships between people and wildlife are improved and maintain. Improved relationship would guarantee sustained wildlife conservation support from the local people of the three villages. Also good neighbourhood would ensure that indigenous knowledge is mainstreamed into sustainable management of the LWMA.

#### 4.3.2 Local People Relation Principles

In the next five years the AA shall strive to implement the RMZP through maintaining the following key principles:

- Integrate traditional structures in the management of the LWMA  
Whenever necessary the AA shall work through the use of tribal systems to ensure strong leadership, management skills, and the election of successful management committees. Also the AA shall work with community and local government to create a community-elected management body. Clear regulations on how to work with traditional structures are necessary and shall be promoted. The traditional roles and responsibilities in the management of LWMA shall be regularly reviewed and adapted to changing conditions.

- Ecology of LWMA

The AA shall strive to ensure that any community action takes into account the ecology of the area. Also biological and ecological monitoring is necessary and shall be community-based. Planning, monitoring, and evaluation should be done regularly and by communities. Information from monitoring should be shared with all the community and used to take action.

- Recognising existing uses

When implementing the RMZP the need for the local people to continue subsistence harvesting must be recognized and accommodated. Where possible the AA shall strive to ensure that existing land and resource use by communities is accommodated in the RMZP management process.

- Addressing causes of people-wildlife conflicts

During the implementation of the RMZP efforts shall be made to make sure that causes of people-wildlife conflicts are identified to form the basis for conflict resolution. Addressing causes of conflicts is key in improving and sustaining good relationship between people and wildlife.

### 4.3.3 Program Objectives, Targets and Activities

This sub chapter outlines a summary of WPRP objectives, targets and activities.

<b>Objective 1: Conflicts between people and wildlife reduced by 50% by 2012</b>	
Target 1.1 Conflicts resolution framework developed by June 2009	Activity 1.1.1 Develop wildlife-community conflicts profile
	Activity 1.1.2 Establish and operationalise Liwale stakeholder forum
	Activity 1.1.3 Review and implement land use plans
	Activity 1.1.4 Develop and implement conflict management plan and conflict monitoring plan
	Activity 1.1.5 Develop and implement policy, procedures, guidelines and bye laws on human settlements and movement of people and livestock in the area
	Activity 1.1.6 Provide voter education to ensure election of best leaders to resolve conflicts
	Activity 1.1.6
Target 1.2 Property damage by wildlife minimized by June 2011	Activity 1.2.1 Develop profile on damage caused by wildlife on local community
	Activity 1.2.2 Review and implement land use plans
	Activity 1.2.3 Develop local policy and operational procedures on minimizing damage and impacts caused by wildlife on people's properties

	Activity 1.2.4 Establish mechanisms to minimize property damage by wildlife
	Activity 1.2.5 Monitor incidences of wildlife damages to local people profile
	Activity 1.2.6
Target 1.3 Livestock-wildlife disease incidences reduced by 30% by June 2011	Activity 1.3.1 Develop profile on livestock-wildlife diseases incidences in the area
	Activity 1.3.2 Review and implement land use plans
	Activity 1.3.3 Develop and operationalise a local policy, procedures and guidelines on livestock keeping
	Activity 1.3.4 Monitor livestock-wildlife disease incidences
<b>Objective 2: Attitudes of local people towards wildlife improved by June 2012</b>	
Target 2.1 75% of the local population is willing to support conservation by June 2011	Activity 2.1.1 Study and develop profile on local people attitudes towards wildlife
	Activity 2.1.2 Review and implement land use plans
	Activity 2.1.3 Develop and implement ways of improving local people attitudes towards wildlife
	Activity 2.1.4 Monitor attitudes of local people towards wildlife
<b>Objective 3: Local people incomes increase by 20% and social conditions improve by June 2012</b>	
Target 3.1 Income of each resident stand at US\$ 1 a day by June 2011	Activity 3.1.1 Study and develop income profile of local people in the three/four villages
	Activity 3.1.2 Develop and implement natural resources utilisation policy, procedures, guidelines and bye laws
	Activity 3.1.3 Establish and operationalise Community Conservation and Development Bank (CCDB)
	Activity 3.1.4 Provide training on wildlife entrepreneurial skills and project planning
	Activity 3.1.5 Monitor incomes of local people
Target 3.2 Social conditions of the local people reach United Nation Development Program (UNDP) standards by June 2011	Activity 3.2.1 Study and develop social condition profile of the local people
	Activity 3.2.2 Develop and implement health improvement and HIV/ AIDS strategy
	Activity 3.2.3 Monitor health conditions of local people
	Activity 3.2.4 Support primary, secondary and tertiary education and training programs
	Activity 3.2.5 Improve agriculture for sustainable conservation
<b>Objective 4: Indigenous knowledge and traditional systems integrated into planning and management of LWMA by June 2010</b>	
Target 4.1 Framework for	Activity 4.1.1 Establish and operationalise indigenous knowledge local policy, procedures and guidelines

integrating local knowledge in LWMA management process in place and operational by June 2008	Activity 4.1.2 Monitor use of relevant local knowledge in the LWMA management process
	Activity 4.1.3 Study and document local knowledge relevant to LWMA management process

#### 4.4 Natural Resources Management Program (NRMP)

##### 4.4.1 Program Purpose

Natural resource management program purpose is to protect biodiversity and the Handeni-Liwale-Simanjiro-Tarangire ecosystem for sustainable livelihoods. Also the program is aimed at ensuring that natural resource data is available for rational decisions on management of LWMA.

##### 4.4.2 Natural Resources Management Principles

In the next five years the AA shall strive to management the LWMA based on the following key natural resources management principles:

- Economic principle

Full-cost pricing of the natural resources is the essence of economic principle. The Magingo AA shall ensure that there is no price distortion by removing government subsidies for resource use. Also costs shall be internalised by ensuring that resource users pay for the external effects. The Magingo AA shall ensure that there is constant income from natural resource by estimating and invest user costs to maintain income-generating capacity of natural resources.

- Sustainability principle

The Magingo AA shall ensure that there is sustainable harvest and constant stock by increasing renewable resources to make up for loss on non-renewable resources. Precautionary principle to safeguard ecological functions in the face of uncertainty would be observed during the implementation of the RMZP. Also the Magingo AA would encourage use of natural resources in ways that ensure non-declining stream of benefits for all, and without weakening ecological functions of the resources.

- Social principle

The Magingo AA shall ensure that there is equitable distribution of natural resources property and user rights i.e. distribute secure property rights or use rights to those that are in dire need. Community management of natural resources shall be encouraged and rely on relevant community institutions for managing common resources for sustainability. Critical support shall be given to community institutions and information, technology, training and credits to enable sound resource management by them.

- Ecosystem principle

The Magingo AA shall strive to ensure that all natural resource management decisions are made to safeguard the Selous-Liwale-Niassa ecosystem. Thus principles of ecosystem planning and management shall be adhered in the implementation of the NRMP.

#### 4.4.3 Program Objectives, Targets and Activities

<b>Objective 1: Wildfire reduced to an ecologically acceptable level by June 2012</b>	
Target 1.1 Incidences of wildfire reduced by 40% by June 2011	Activity 1.1.1 Study and develop wildfire profile
	Activity 1.1.2 Develop and implement Fire Technical Detailed Management Plan
	Activity 1.1.3 Develop and operationalise policy, procedures, guidelines and bye laws on the use and management of fire in the area
	Activity 1.1.4 Monitor incidences and extent of wildfire
	Activity 1.1.5 Establish wildfire database
<b>Objective 2: Wildlife populations maintained at ecologically acceptable levels by June 2012</b>	
Target 2.1 Wildlife-livestock disease incidences reduced by 50% by June 2010	Activity 2.1.1 Study and develop wildlife-livestock disease incidence profile in the area
	Activity 2.1.2 Review and implement land use plans
	Activity 2.1.3 Develop and implement technical detailed disease management plan
	Activity 2.1.4 Monitor disease incidences in the area
	Activity 2.1.5 Establish disease database
Target 2.2 Wildlife habitat management framework established by June 2009	Activity 2.2.1 Study and develop wildlife-livestock habitat profile
	Activity 2.2.2 Develop and implement wildlife-livestock habitat technical detailed management plan
	Activity 2.2.3 Monitor habitat condition and use by wildlife and livestock
	Activity 2.2.4 Develop habitat condition and use database
	Activity 2.2.5 Improve wildlife-livestock habitat including water availability for wildlife and livestock
Target 2.3 Wildlife monitoring framework in place by June 2009	Activity 2.3.1 Study and develop wildlife species profile
	Activity 2.3.2 Undertake annual counts of numbers of key wildlife species
	Activity 2.3.3 Develop wildlife database
	Activity 2.3.4 Monitor wildlife populations
	Activity 2.3.5 Use census data to determine annual wildlife utilisation quotas

Target 2.4 Illegal harvest controlled by June 2009	Activity 2.4.1 Study and develop profile on illegal harvest of natural resources in the area
	Activity 2.4.2 Develop mechanisms for sustainable utilisation of wildlife resources
	Activity 2.4.3 Develop mechanisms to combat illegal harvest of wildlife resources
	Activity 2.4.4 Develop policy, procedures, guidelines and bye laws on wildlife resource utilisation
	Activity 2.4.5 Develop and operationalise database on illegal harvest of wildlife resources
Target 2.5 Wildlife database established by June 2009	Activity 2.5.1 Develop database format (manual database)
	Activity 2.5.2 Train local people on the management of manual database
	Activity 2.5.3 Purchase necessary equipment and operationalise natural resources database

## 5. 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 Liwale 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 RMZP proposals on the LWMA environments. Thus the technical staff of the district selected the following eight major proposals for the assessment:

- Confining resident hunting on one part of the LWMA;
- Develop and implement framework for ecotourism concessions and contracts; and
- Implementation of zoning scheme.

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:

- Local economy and revenue;
- Local communities social conditions;
- Wildlife and biodiversity conservation; and
- Ecosystem maintenance and ecological integrity.

In a short-term, the LWMA local economy and 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 LWMA shall benefit financially from increased income resulting from the introduction of ecotourism programs and tourist hunting

receipts that were channelled to the central government. 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 LWMA, as a direct mitigation measure. Also the RMZP recommends studies before the implementation of some physical developments, as feedback mitigation measures.

Confining resident hunting to the Namawe Management Zone would make hunting for meat to local people living away from the zone a bit difficult. This might encourage those communities living away from this zone to participate in illegal hunting in other zones. The Magingo WMA should find solution to this problem, by providing alternatives to wildlife meat or facilitating local people living away from Namawe Management Zone to access meat from this zone.

Specific environmental statements are summarized below.

### 5.1 Impacts on Local Economy and Revenue

<i>Description</i>	One of the objectives of the LWMA is to ensure that revenue operational and development costs are met. 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. Local economy and revenue could as well be improved through the implementation of tourism and local community programs.
<i>Plan elements affecting topic</i>	Hunting and ecotourism developments, marketing LWMA locally and internationally, establishment of new visitor facilities, and protecting wildlife of the LWMA.
<i>Impacts if plan is implemented</i>	Diversifying visitor opportunities, improving visitor facilities and infrastructure, protecting all attractions of the LWMA 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>	LWMA 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. LWMA would fail to undertake its operations thus fail to protect outstanding resources values of the area.
<i>Comments</i>	Marketing efforts intensified and access to the park eased. Running costs rationalized. Self-financing proposed mechanisms implemented

## 5.2 Local Communities Social Conditions

<i>Description</i>	This RMZP seeks to ensure good working relationship between LWMA and all relevant stakeholders, reduce illegal activities and increase support from the neighbouring human communities. But also the RMZP intends to improve social conditions of the local people in the area.
<i>Plan elements affecting topic</i>	Community conservation promoted, human-wildlife conflicts minimised and sustainable land uses adjacent the LWMA promoted. Also establishment of entrepreneurial programs, ecotourism and hunting programs would boost the income of villages thus provide opportunity for improved social programs.
<i>Impacts if plan is implemented</i>	Local people knowledge and attitude enhanced. Local economies stimulated by increased visitors' activities in the LWMA. Wildlife-people relations improved. Support to the LWMA from stakeholders will be increased and effects of high human density on LWMA reduced. Entrepreneurial programs established and social programs supported.
<i>Impacts if plan not implemented</i>	Ignorance on conservation issues and poverty will increase resentment of local people and encroachment into LWMA. Support from local people will be difficult as well. Poverty will increase thus more use and destruction of natural resources.
<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 LWMA resources and reduce the conflicts of use. Tourism and social programs will reduce poverty hence reduce dependency on use of natural resources.

## 5.3 Wildlife and Biodiversity Conservation

<i>Description</i>	LWMA is one of the sites with high concentration of wildlife and high biodiversity values in the district and northern Tanzania.
<i>Plan elements affecting topic</i>	Increased law enforcement activities, providing law enforcement facilities and infrastructure, research and monitoring, carrying out EIA on 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 LWMA 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 LWMA.

<i>Impacts if plan not implemented</i>	Loss of wildlife species and biodiversity and loss of wilderness character. Tourism will deteriorate and revenue adversely affected. Ecological imbalances are evident if wildlife and biodiversity deteriorates.
<i>Comments</i>	Ensure that the management zone scheme is implemented and all physical developments are subjected to EIA.

#### 5.4 Ecosystem Maintenance and Ecological Integrity

<i>Description</i>	Maintenance of ecological integrity is key in minimizing chances of extinction of the species of the LWMA and protected areas adjacent to it.
<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 LWMA
<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 blockage of migratory routes and extinction of certain species.
<i>Comments</i>	Ensure that the ecosystem-wide management plan is developed and implemented

## **6. IMPLEMENTATION OF THE RMZP**

### **6.1 Implementation Framework**

Implementation is the most difficult and possibly the weakest stage of RMZP cycle in majority of WMA systems. Clear programs and defined processes are keys to ensure 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. This process must also be linked to the district planning process. 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;
- Linking RMZP to the district planning process;
- Development of a monitoring and evaluation plan;
- Linking RMZP to the village government institutions; and
- Training of Magingo AA Members on the implementation of the RMZP.

### **6.2 Implementation Risks**

Before defining the specific management objectives for LWMA, the constraints on its management and any other major threats to the area's values should be identified. Constraints may take different forms such as legal obligations, constraints of tenure, prior usage of land, health and safety considerations, managerial constraints, obligations to neighbours and visitors, international obligations and other policy considerations.

The planning team recognized and took into account the constraints to the development and subsequent implementation of the RMZP. The Chapter on Plan of Actions has proposed mechanisms that would reduce the adverse effects of these limitations. These mechanisms would minimize the risks and threats that may lead to failure in implementing the RMZP.

- Leadership;
- Inter-village conflicts;
- Continued influx of people in the district; and
- Failure to implement land use plans.

## REFERENCES

- The Government of Tanzania (2002). *Guidelines for Designation and Management of Wildlife Management Areas*, Tanzania Government Printers, Dar-es-Salaam
- The Government of Tanzania (2005). *The Wildlife Conservation (Wildlife Management Areas) Regulations, 2005*, Tanzania Government Printers, Dar-es-Salaam
- Thomas, Lee and Middleton, Julie (2003). *Guidelines for Management Planning of Protected Areas*. IUCN, Gland, Switzerland and Cambridge

## APPENDICES

### Appendix 1: Liwale District Council and MAGINGO AA Participants in the Planning Workshop in 2008

Name	Title
1. ABDALLA KANUNGA	Secretary - MAGINGO AA
2. ZANI MBUNDA	Member- MAGINGO AA Council
3. ZAINA MAKOLA	Member- MAGINGO AA Council
4. HAWA MTILE	Member- MAGINGO AA Council
5. KASIM MADUKA	Member-MAGINGO AA Council
6. HASHIM MTOTELAH	Member-MAGINGO AA Council
7. JUMA MMAGAYA	Member-MAGINGO AA Council
8. ZUBERI NGARONDOLA	Member-MAGINGO AA Council
9. HAMZA UPINDE	Member-MAGINGO AA Council
10. RASHID MTAWILA	Member-MAGINGO AA Council
11. HAMISI NYINGA	Member-MAGINGO AA Council
12. HASHIM MHINA	Member-MAGINGO AA Council
13. KASIMU KAMUNA	Member-MAGINGO AA Council
14. ZAINA MKAPE	Member-MAGINGO AA Council
15. MOZA NAMWENE	Member-MAGINGO AA Council
16. KASSSIMU KIWIMA	Member-MAGINGO AA Council
17. ABEDI ONELA	Member-MAGINGO AA Council
18. ZAINA MTESA	Member-MAGINGO AA Council
19. HALIMA NDENGWIKE	Member-MAGINGO AA Council
20. ABBAS KIGANJA	Member-MAGINGO AA Council
21. NASORO LIKULUKULU	Member-MAGINGO AA Council
22. MUHIDIN MANDANDU	Member-MAGINGO AA Council
23. ANTHONY SHIRIMA	Liwale District Council - DNLRO
24. GILLY SIMIYU	Liwale District Council - DFO
25. HAMIDU LIPWECHE	Liwale District Council - Planning Officer
26. MOHAMED MBUNGU	Member-MAGINGO AA Council
27. SAID MANGOJO	Member-MAGINGO AA Council
28. SIGFRID KAPINGA	Member-MAGINGO AA Council
29. FRANCIS RUSENGULA	Liwale District Council - DGO
30. ALLY KILAGA	Member-MAGINGO AA Council
31. HAMIDU MATAKA	Chairman-MAGINGO AA
32. ISSA MWEMBE	Member-MAGINGO AA Council
33. HEMEDI LIBUHI	Member-MAGINGO AA Council
34. SAID MANGITU	Member-MAGINGO AA Council
35. MOHAMED NYONYI	Member-MAGINGO AA Council
36. CHANDE NYONYI	Member-MAGINGO AA Council
37. SADIKI MAKUNGWA	Member-MAGINGO AA Council
38. SAID KINDAGE	Member-MAGINGO AA Council
39. MSHAMU MKAMULILA	Member-MAGINGO AA Council
40. MOHAMED MBELEMA	Member-MAGINGO AA Council
41. JAMES KABUTTA	Member-MAGINGO AA Council
42. TERESIA IRAFAY	Liwale District Council - DCDO
43. HAMADI MAKOLO	Member-MAGINGO AA Council

## **Appendix 2: The Process of Preparing WMA RZMP**

The process was copied from the Wildlife Conservation Act (2009) and The Wildlife Conservation (Wildlife Management Areas) Regulations, 2002 Revised 2005.

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