



## **Comparative Analysis of the Similarities and Differences between Developing Participatory Forest Management and Wildlife Management Areas in Tanzania**



**A report produced under the '*Enhancing Livelihoods through PFM in Northern Tanzania*' -  
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# Table of Contents

<b>1. Background and Context .....</b>	<b>3</b>
<b>2. Rationale for this Paper .....</b>	<b>3</b>
<b>3. Focus of Analysis and Rationale for Comparison between JFM with WMA Processes..</b>	<b>4</b>
<b>4. Methodology .....</b>	<b>5</b>
<b>5. Policy Framework.....</b>	<b>5</b>
5.1 Tanzanian natural resource management policy framework including CBNRM approaches.....	5
5.2 Overview of the WMA and PFM (JFM and CBFM) policy frameworks and implementation processes.....	6
<b>6. PFM Implementation Process.....</b>	<b>8</b>
6.1 Developing a forest management plan .....	9
6.2 Land use planning .....	10
6.3 Community engagement .....	11
6.4 Resource management .....	11
6.5 Economic incentives/opportunities/benefits .....	11
6.6 Governance/roles and responsibilities of central/district/village and JFM levels .....	13
6.7 Enforcement .....	16
6.8 Sustainability.....	16
6.9 Cost of PFM implementation .....	17
<b>7. WMA Implementation Process.....</b>	<b>17</b>
7.1 Steps establishing a WMA .....	18
7.2 Design and timeline of the process of WMA implementation.....	19
7.3 WMA resource management zoning scheme .....	20
7.4 Community engagement .....	20
7.5 Resource management .....	20
7.6 Collaborating with other stakeholders .....	21
7.7 Economic incentives/opportunities/benefits .....	21
7.8 Governance/roles and responsibilities of central/district/village and WMA levels .....	22
7.9 Enforcement .....	23
7.10 Sustainability.....	23

7.11 Cost of implementation .....	24
<b>8. Comparative Analysis of the Commonalities and Differences between PFM and WMA..</b>	<b>25</b>
8.1 Policy frameworks.....	25
8.2 Requirements for land uses stipulated in the policy frameworks.....	28
8.3 Approvals processes.....	28
8.4 Implementation.....	28
8.5 Economic incentives/opportunities/benefits .....	29
<b>9. Conclusion and Recommendations .....</b>	<b>30</b>
9.1 Policy recommendations .....	30
9.2 Implementation recommendations .....	34
9.3 A Proposed Integrated Landscape Planning Approach.....	36
<b>10. References.....</b>	<b>37</b>
<b>Annexes .....</b>	<b>38</b>
Annex 1. AWF’s Kilimanjaro Landscape.....	38
Annex 2. Gelai Forest Management Units .....	39
Annex 3. Map of Ketumbeine forest showing the Forest Management Units.....	40
Annex 4. Map of Lake Natron WMA.....	41

## 1. Background and Context

In 2012, AWF was awarded a four year grant by the European Union (EU) Office in Tanzania to support the implementation of a project entitled “*Enhancing Livelihoods through PFM in Northern Tanzania.*” The overall objective of the project was to secure income and livelihood opportunities for villagers engaged in Participatory Forest Management (PFM) in return for conserving critically important forest habitat in the Tarangire Manyara Kilimanjaro Natron Ecosystem (TMKNE). The project focused on two forest blocks, Gelai and Ketumbeine, in Longido District (part of AWF’s Kilimanjaro Landscape Annex 1).

Specific objectives of the project were to:

1. Develop and implement land use plans and governance structures with villages to safeguard forest resources, secure village and household land forest rights, and provide a framework for good governance through agreed by-laws.
2. Support the creation and/or expansion of four viable forest based enterprises, which provide revenues to communities from activities and the incentive for forest conservation.
3. Empower women by developing sustainable livelihood activities, which further expand the benefits to communities from the forests.

Tanzania has implemented a number of Community Based Natural Resource Management (CBNRM) approaches over 30 years through a series of sector based policy reforms. Part of the project’s output was to analyse and document synergies and differences between PFM and Wildlife Management Area (WMA) processes. This was based on AWF’s past experience in the establishment of WMAs namely Makame, Burunge, Enduimet, Makame, Randilen, Lake Natron and Yaeda Chini and implementing the PFM process, which clearly revealed duplications in the execution process, inefficiencies, and even conflicts between policy and regulatory frameworks. The presence of two forest blocks within a proposed WMA, such as Lake Natron was an opportunity to learn how wildlife and forestry CBNRM regulations and policies could be harmonized. On the basis of the scenario, AWF proposed to document learning from the field with the objective of informing policy and practice at national level.

## 2. Rationale for this Paper

The rationale of this paper is to articulate, based on field implementation experiences, the strengths and weaknesses of WMA and joint forest management (JFM) policies, institutional structures, and guidelines, and to provide guidance and recommendations to government agencies, practitioners, beneficiaries, donors, and others who are engaged in WMA and JFM implementation. Based on our practical field experience, we make various recommendations and propose steps for harmonization of PFM and WMA processes. The need for harmonization of PFM and WMA is necessitated by the fact that, currently, there are two parallel planning approaches for the community management of wildlife and forest resources in Tanzania. The two approaches, WMA and PFM, have similarities and differences. Therefore, is it necessary for them to be harmonised to promote a more coordinated and efficient planning and management approach. Harmonising the two approaches is also useful because the two forest reserves in Longido District are part of wildlife habitats within the wider Lake Natron WMA and thus overlap geographically. In this case study, the development of PFM involved 11 villages, which

were part of the 32 villages included in the Lake Natron WMA. During the process, the best wildlife linkages between the forest and conservation areas in the WMA were investigated. While both the PFM and WMA process are developed as stipulated by various laws in Tanzania, there is need for harmonization of these parallel-planning approaches for the management of natural resources. The process of harmonisation of the two processes required a detailed synthesis of policy frameworks that elucidates the synergy between the PFM and WMA processes with a view to harmonizing both, reducing the costly processes and ensuring an effective process that will catalyse further community based forest and wildlife conservation in Tanzania in the future.

The development of WMA is hinged in a number of Policies and Acts including: (i) Wildlife Policy of Tanzania Of 1998 (revised 2007); (ii) WMA Regulations of 2012; (iii) Land Act 1999; (iv) Tourism Hunting Regulations of 2000 (revised 2002); (v) Forest Act of 2002; (vi) Forest Policy of 1998 (revised 2004); (vii) Environmental Management Act of 2004; (viii) Non Consumptive Utilization of Wildlife Resources Regulation of 2008; and (ix) Wildlife Conservation Act No.5 of 2009. In addition there is a reference manual for implementing WMAs: Guidelines for the Designation and Management of WMAs in Tanzania (2003). Equally, the PFM process is also done in accordance to the current Forest Policy of 1998 and Forest Act No. 14 of 2002, which allows other non-state actors, such as communities, to participate in forest management.

### **3. Focus of Analysis and Rationale for Comparison between JFM with WMA Processes**

The focus of this analysis is on the specific areas of similarities and the differences between the PFM and WMA processes with the aim of informing policy and practice at both national and site levels. In the PFM project, AWF worked with communities and local government authorities to strengthen existing institutional frameworks to enable local communities to benefit directly from forests through PFM, which was proven to be an enabling legal framework endorsed by the Government of Tanzania for communities to use forest resources for their livelihoods. Central to the success of PFM is participatory land use planning (LUP) and specific management plans, which is in accordance with the 1998 Forest Policy and Forest Act No. 14 of 2002.

The establishment of WMAs is guided by the Wildlife Policy of 1998 and Wildlife Management Act 2002. Promoting local community involvement and developing management plans for WMAs through LUP are among the key aspects of the policy.

Other similar steps between the two processes include:

1. Forming Village Natural Resource Management Committees are in both processes, villages elect Management Committees through village assemblies and take gender into consideration.
2. Mapping forest and WMA boundaries for practical management purposes.

3. Developing management plans, which is a requirement by both the Forest Act and Wildlife Management Regulations.

Therefore, the focus of this analysis is on the activities undertaken in relation to the above similarities, the process followed and deliverables in both the PFM and WMA followed by comparative analysis of the two system of natural resource management.

## **4. Methodology**

The methodology adopted by AWF included drawing on field experience with both processes, including the establishment of WMAs and PFM structures, combined with review of project documents both pre-project and on project documents. It also included review of legal documents formulated by Government of Tanzania mainly the Forestry Policy, Wildlife Policy and Wildlife Act and other relevant documents. The combination of practical field experience and policy review, provides AWF with a practical grasp of the real challenges in the establishment of WMAs and PFM, and the correlation to legal frameworks. Piloting these CBNRM tools, made AWF well positioned to make practical recommendations for policy improvement.

## **5. Policy Framework**

### **5.1 Tanzanian natural resource management policy framework including CBNRM approaches**

The Government of Tanzania has committed to effectively manage wildlife resources for the benefit of its citizens. In 1998 the Government adopted a National Wildlife Policy of Tanzania. However, a number of challenges were identified by various practitioners during the implementation of the policy and this resulted in the adoption of best practices for wildlife management. The policy gave notable importance to community involvement in wildlife conservation as the Government recognized that legitimate community engagement is necessary for natural resource conservation to succeed. In December 2002, the Government issued the Wildlife Management Areas Regulations (2002) which were piloted in 16 areas. The pilot WMAs were governed by other laws such as the Wildlife Conservation Act of 1974, the Village Land Act 1999, and the Local Government Act (District Authorities) 1982. The underlying assumptions at the time were that WMAs would be established where there was a “healthy” population of wildlife and would run as business entities parallel to other production systems in the village land, as would be determined by the land use plans. The other assumption was that most of the benefits accrued from WMAs would be allocated for use to activities that provide benefits to the community in general. To garner support of community members some benefits were to accrue to individuals and households and increase over time.

With the strategic shift towards a community-based conservation framework, testing of the approach began in 2003. This resulted in the first WMAs to be registered in 2006. In 2009, Parliament approved a new Wildlife Conservation Act which enshrined WMAs in the overarching sectoral legislative framework. New WMA Regulations under the 2009 Act were issued in 2012, which contain a number of key changes, including strengthening the communities’ involvement and influence over trophy hunting concession

allocations in WMAs, as well as providing greater clarity around benefit-sharing. These were critical improvements to the devolution of authority to the WMAs.

In the forestry sector, PFM was initiated in the 1990s with pilot activities in some areas of the central and northern parts of the country. These activities were initiated in the forests of Duru Haitemba, Mgori and Suledo and paved the way for important changes in Tanzanian Forestry Policy and legislation. This has resulted in Tanzania becoming one of the first countries in Africa to formally recognize the role of communities in managing and owning forests and is considered a leader on the continent with regard to PFM implementation.

Since the PFM initiation, significant steps have been taken towards improving the management of forest resources. The steps included implementation of Community Based Forest Management (CBFM) and Joint Forest Management (JFM) both of which are approaches commonly referred as PFM. In JFM, the process allowed villagers to enter into management agreements enabling them to share responsibilities for forest management with the forest owner—the central or local government, essentially creating a community—government partnership. While in CBFM, forest management approach took place on village land or private lands where local communities played a role as both managers and forest owners. The management of the forest was mainly done by the village council through a Village Natural Resource Committee (VNRC). Most of the costs and benefits associated with the management and utilization of the forest was carried by the forest owner if it was an individual owner or by the local communities if they were the owner of the forest.

## **5.2 Overview of the WMA and PFM (JFM and CBFM) policy frameworks and implementation processes**

The wildlife legal framework change from centralist and protectionism to community based approach started with the Tanzania Wildlife Policy (1998) updated in 2007 that called for “the creation of Wildlife Management Area (WMA) for the purposes of effecting community conservation” (TMNRT, 1998). As stated earlier, the aim of the wildlife policy was to involve a broader section of society, particularly the rural communities, the private sector and the public sector in wildlife conservation and to act as a springboard towards sustainable rural economic development for poverty reduction and improvement of livelihoods. This was further operationalized by Wildlife Conservation Act of 2009 with several objectives in the Wildlife Act supporting WMAs included a provision for drafting of management plans. This provision was supported by the WMA clauses in the Wildlife Policy that provides user-rights to local communities to engage actively in wildlife conservation and entrepreneurship while ensuring protection and conservation of the resources for their own benefits. The Wildlife Management Area Regulations of 2002 further provided the formal framework for the creation of the WMAs by laying out a series of mandatory steps to establish the governance structure for the WMA and ultimately achieve the designation of Authorized Associations (AA) and to attain full user-rights. AA are villages, individual groups and designated organizations given the authority by the Wildlife Director in the Ministry of Natural Resources and Tourism to manage wildlife outside National Parks, Ngorongoro Conservation Area and Game Reserves.

In the Forestry Sector, the government approved a National Forestry Policy in 1998, the first policy since 1963 that promoted substantial change in the way forests were managed. The policy aimed at

promoting participation in forest management through the establishment of Village Local Forest Reserves, where communities were both managers and owners of forests, as well as through JFM, where local communities co-manage National Forest Reserves (NFRs) or Local Authority Forest Reserves (LAFRs) with central and local government authorities, creating a community—government partnership. Furthermore, the policy recognized the substantial area of forest that lied outside the formal forest reserve network and the levels of deforestation and degradation that took place in the areas due to poor management and uncertain tenure. Ascribing clear and legally mandated tenure for these forest areas to Village Councils was considered a rational way in which overall forest management could be improved and forests conserved. The policy was followed by an enactment of the Forest Act in 2002, which provided the basis in law for communities to own, manage, or co-manage forests under a wide range of conditions and management arrangements. The Forest Act was embracing the principle of subsidiarity, stating its aim as “delegating responsibilities for the management of forest resources to the lowest possible level of local management consistent with the furtherance of national policies” (URT, 2002).

The Forest Act was passed in 2002 and provided the basis in law for which communities could own, manage for co-manage under a wide range of conditions and management arrangements. In relation to PFM, the Act supported the PFM in two ways:

1. Enabling local communities to declare and ultimately gazette village, group or private Forest Reserves (CBFM).
2. Allowing communities to enter agreements with government and other forest owners for Joint Forest Management Agreements (JFM), which include sharing of costs and benefits of forest management.

Although not widely understood, this distinction is extremely important. The first form takes place on village land-or private land and the trees are owned managed by either a village council (through a Village Natural Resources Committee), a group or an individual. All the costs and benefits relating to the management and utilization are carried by the owner. The role of the central government is minimal-and districts have a role only in monitoring.

The second form of PFM, Joint Forest Management, takes place on “reserved land,” which is land owned and managed by either central or local government. Villages typically enter into management agreements with the government and share responsibilities for forest management.

While the steps in achieving both types of PFM are the same, they differ in the formulation of the JFA. It is also important to note that one of the underlying assumptions in PFM is that once established, the incentives generated from either form of forest management are sufficient to maintain the process of forest management with minimal external support.

## 6. PFM Implementation Process

In implementing the PFM process in northern Tanzania, AWF formed a Core Planning Team (CPT) comprised of Longido District Council staff from the departments of Land, Natural Resources & Environment, Planning, Community Development, Agriculture & Livestock and AWF field staff with the aim of moving the JFM process forward in conjunction with the local communities living adjacent to the forest blocks. As the first step, the CPT conducted sensitization and awareness creation meetings in all 11 villages adjacent to the forest blocks. Following successful completion of the sensitization meetings, the CPT facilitated the formation of the VNRCs as required by “Section 33 (1,2) of the Forestry Act 2002. The committees were selected through village assemblies meetings and were approved by village councils. The VNRCs took account of gender considerations by ensuring that women were included in the committees. According to “Section 33 (1,2)”, the VNRC is the principal body concerned with the management of the Village Forest Management Area (VFMA) and also acted as the manager of forest resources in the villages bordering the forests-an important requirement under the JFM guidelines. Functions of the VNRCs ranged from forest protection, establishing regulations to access and use forest and actions to rehabilitate or develop productive capacity of the forests.

**Table 1 Six basic stages for JFM planning process.**

Stages	Activities
<b>Stage 1. Inception</b>	This takes place at the district or forest level, with the selection of forest area and the surrounding villages, together with briefing of district staff and the formation of a team of staff with different skills (District PFM interdisciplinary team) to do the work. At the village level, one meet with Village Council and Assembly and facilitate the establishment and orientation of the Village Natural Resource Committee (VNRC).
<b>Stage 2. Assessment and Management Planning</b>	This is where together with members of the VNRC one confirms, agrees and marks the boundaries of the forest and the internal Village Forest Management Areas (VFMA), (if the forest is to be managed on a village-by-village basis). The forest is then “assessed,” and if it is to be utilised for timber or other forms of harvesting, the trees measured to calculate sustainable harvesting levels. Based on this, a management plan is developed for the VFMA.
<b>Stage 3. Formalising and legalising</b>	This is where one provides communities with the legal basis for management. A JMA is prepared that defines how management costs, benefits and responsibilities are to be shared. The JMA is negotiated based on the broad management objectives set out in the forest management plan for the VFMA and where it exists, the Forest Reserve itself. The draft JMA is discussed by the Village Council and Assembly and forwarded to Tanzania Forest Services (TFS) (or the District Council) for comments. Based on comments received, the JMA is finalized and signed by TFS/District Council

	and the Village Council. Bylaws are developed to support the enforcement of the JMA. Once the JMA has been signed, the villagers can start implementing their management plan.
<b>Stage 4. Implementing</b>	This is where one helps the community put the systems needed to manage the forest in place: appoint and train the patrol team, make sure forest management rules are known, etc... You need to visit frequently, keep an eye on progress and help with problem solving. After a few years of implementation it may be necessary to revise the plan and/or the bylaws.
<b>Stage 5. Revising</b>	After approximately three years, the management plan can be reviewed to see if any changes need to be made, such as harvesting levels, rules, fines and so on. Annual reviews should take place to ensure sound management.
<b>Stage 6. Expanding to new areas</b>	It is likely that other villages will start requesting JFM in their villages. It is during this stage one plan and budget for expanding into new areas.

Second to the establishment of the VNRCs was the identification of forest beacons and mapping of the boundaries of the PFM area. Part of the process was to compare the original gazetted areas of the forests with a newly surveyed and mapped PFM areas to determine the extent of the forests buffers and human encroachment through settlement and farming. This was to further assist in the negotiation process between the local communities and the District Council on the new forests boundaries resulting from overlapping areas & encroachment into the forests. Many of Tanzania’s forest areas have been encroached by agricultural development and settlement; thus, decreasing the forest area. To adequately protected forest reserves, clear boundaries need to be determined with the surrounding villages.

Following the completion of the mapping exercise, there was clear evidence of encroachment in the forest that called for discussions and negotiations on changes of the forestry boundaries between the local communities and the District Council. The boundaries variation entailed getting approvals of the communities from the village, ward and district levels after successfully completing the negotiations. At the village level, two meetings were conducted per village, with the village council (leaders) and the village assembly. The progress status of the boundary variation for the villages surrounding Ketumbeine Forest was completed on 25 November 2013 while for Gelai Forest the process was completed on 3 December 2013. The process of clearly marking the forests boundaries is important because the Forest Act requires that the boundaries of every Forest Reserve be clearly marked for management purposes if the forests were surrounded by more than one village.

**6.1 Developing a forest management plan**

In 2014 based on the consultative process, AWF completed a baseline study for the two forest reserves. The study documented species diversity and dominance, important ecological values and diversity indices, Diameter at Breast Height (DBH) and ecological disturbance. Other data types included the socio-economic value of the forest to the adjacent villages such as forest use, actual and potential

benefits, formal and informal institutions utilising the forest, and challenges of natural resource use. The level and type of stakeholders involvement was also analysed and documented. AWF used tools such as participatory rural appraisal and key informant interviews to gather information. To ensure the communities living adjacent to the forest blocks effectively participated in the development of the management plan and its implementation, AWF undertook a number of capacity enhancement trainings in both Gelai and Ketumbeine Forest areas. The involvement of the District Forest Officer was crucial because as it is a requirement in the Act that the Forester is part of the planning team.

## **6.2 Land use planning**

When AWF facilitated the process of establishing Lake Natron WMA, all the villages adjacent to the two forest blocks were taken through the WMA establishment process and these included the development of LUPs for each of the 11 villages. The LUPs were approved by the full District Council at a meeting in March 2013 and formally submitted to the National Land Use Commission (NLUC) for approval and gazettment. This proved to be very efficient and effective as no additional finances were used to take the villages through the land use planning process. The only addition made to the LUPs was defining the Forest Management Units for both forest blocks. Gelai Forest Management Unit (Annex 2) included sensitive areas such as water resources, wildlife corridors, and areas to collect dry firewood, local medicines, cultural rituals, areas for putting beehives, grasslands, wild fruits and poles / timber for house construction.

All areas with water springs in the forest were put under special care with marks of CCM (Chanzo cha Maji' meaning Source of Water) using red paint referred to as FMU1. Densely forested sections of the Forest were marked MM (Msitu Mnene meaning dense or montane forest) using a blue paint and referred to as FMU2. Areas of open woodland with loose forest canopies were marked MWW (Msitu wa Wazi or open forest in English) referred to as FMU3. Areas of the forest that were encroached through farming and human settlements were marked MY (Maeneo yaliyovamiwa) referred to as FMU4.

When Ketumbeine Forest Reserve was gazetted in 1955, it was meant for production but for proper management, it was sub-divided into zones (Annex 3) similar to Gelai Forest Reserve with sensitive areas such as water resources, wildlife corridors, areas for collecting dry firewood traditional medicines, rituals, areas for putting beehives, local vegetables, thatching grasses, wild fruits and poles/timber for house construction. All areas with water springs in the forest (known as eskaleti in Masaai) were put under special care and specially marked as with CCM ("Chanzo cha Maji") meaning source of water. The marking was done using red paint and such areas were referred to as FMU1. All densely forested areas were marked MM ("Msitu Mnene") using blue paint and referred to as FMU2. Area with forest/open woodland (forests with loose canopies) had mark denoting "Msitu wa Wazi" or forest with open canopies using white paint colour paint termed FMU3. All encroached areas for agriculture and human settlement were marked with yellow colour paint and were termed FMU4. There were also wildlife corridors which were identified and marked as MYW (Mapito ya Wanyama). The wildlife corridors were treated as special areas and protected from destruction.

### **6.3 Community engagement**

Following the involvement of local communities in baseline data collection, the process of preparing the management plans commenced. The VNRC of Elang'ata Dapash, EEsokon, Olchoronyokie, Losirwa, Nadaare and Ilorienito acted as the coordination committee with guidance from the District Forest Officer and AWF field staff for the planning process. The committee was composed of three representative members from each VNRC of the five participating villages. The management plan, bylaws and JFM agreement was developed in a participatory process and approved by village councils and their respective village assemblies of all the participating villages, the Ward Development Committees (WDCs) of Elang'ata Dabash and Ilorienito Wards and Longido district Council (Full Councils) in July 2015. However, it was agreed all the three documents would be revised after five years.

### **6.4 Resource management**

In ensuring active management of both Gelai and Ketumbeine Forests, the following factors were considered:-

- Regular meetings of the VNRC for all villages adjacent to the forests.
- Continuous forest patrols by forest scouts who would provide reports to the VNCRs.
- Maintenance of permits and fines and offenders arrested/caught and dealt with appropriately and records of revenues accrued from permits and fines and how the revenues were used were properly kept in accordance with revenue generation component of the management plan.
- Easy accessibility and transparency of necessary documents and minutes of various meetings in the village office.
- Conflict between the VNRC and VC members resolved as soon as they occurred.
- Community members valuing the activities for managing the forest and giving support to the VNRC and VC.

### **6.5 Economic incentives/opportunities/benefits**

#### *Monetary*

There were a number of services provided by Ketumbeine Forest including income. These included forest uses that required written permits accompanied by payments and these included:

- Tourist camps with payment fees of between Tshs. 20-50,000 /=.
- Tourists camps in forest at the cost Tshs. 5,000/= per person per day.
- Extracting poles from cedar tree from the forest for various uses:
  - Community members allowed to collect cedar poles from the naturally fallen down trees and charged Tshs. 4,000/= per pole.

Other services provided by Ketumbeine Forest and their respective rates indicated below (Table 2).

**Table 2 Ketumbeine Forest Reserve – costs for various fees and permits**

Activities	Responsible	Fees/Charges
Research without taking anything	Local researchers (one researcher)	Tshs. 5,000 / = per day/head
	University Lecturers	Tshs. 10,000 / = per day/head
	Visitors (one researcher)	US\$ 15 per day/head
Entry into the forest (for tourists)	Visitors accompanied by a guide	US\$ 10 per day/head
	Tanzanian citizen	Tshs. 3,000 / = per day/head
	Tanzanian children	will pay half the adult fee
Set up a camp in the forest	Tanzania citizen	Tshs. 3,000 / = per day/head
	Tourists	US\$ 10 per day/head
Study tours	Tanzanian visitors who come to learn about PFM	Tshs. 20,000 / = per day/group
	Non Tanzanian who come to learn about PFM	US \$ 15 per day/group
Training of students	Students from within the two ward	No charge
Training on biodiversity for students from outside the two wards	Students	TShs.15,000 / = per group

*Non-monetary benefits*

- Grazing livestock in the forest for a specified time and zones. However, animals (cattle and sheep) allowed to graze in the forest during drought periods but be decided by the VNRCs. After the allowed period elapsed, the forest would be closed for grazing.
- Cutting ropes for construction, especially climbers.
- Primary and secondary school students from the respective ward visiting the forest for learning.
- Collection of dry firewood from the utilization areas/zones (for domestic use only).
- Collection of herbal medicines (home use only) in a sustainable way.
- Picking fruits, vegetables and mushrooms.
- Undertaking rituals ceremonies/spiritual worshipping.
- Bee-keeping through modern and sustainable methods/approaches in designated zones.

### *Benefit sharing*

For Ketumbeine Forest Reserve revenues collected from the forest resources, fines levied and confiscated forest products were divided between Longido District Council receiving 60% and the respective village councils receiving 40%. Total revenues of the villages, the 40%, was distributed equally by Ketumbeine Forest Coordination Committee (KFCC) to all the villages involved.

## **6.6 Governance/roles and responsibilities of central/district/village and JFM levels**

### *Accountability*

Expenditure of money generated from Natural Resources:

- All revenue from fees and fines, are to be reported in village assemblies.
- Use of funds is expected to go towards strengthening management of the forests and development of villages. Uses are expected to be based on priorities including the following:
  - First priority
    - Purchase of office equipment and books for recording keeping;
    - Procurement of patrol equipment;
    - Transportation of the committee members and other members to be involved;
    - Enhancement of the forest reserves;
    - Allowance for forest guards as incentives for their work; and
    - The production of brochures about the forest for visitors.
  - Second priority
    - Various activities for the communities or village development.

NB: For all of the emergency activities; the Village Council has the power to approve and report to the village general assembly. Reports of various events is to be given to ward or divisional forest officers with a copy submitted to village authority. All expenditure must be accepted by the village council and approved by the village chairman in considering the importance of the activity itself.

### *Transparency*

In both Ketumbeine and Gelai Forest Reserve, the procedure for revenue collection and expenditure is clearly outlined. In addition the procedure for criminality and none performance are clearly provided for in the two management plans.

### *Equity*

The two JFM had provision that ensured both government and citizens played their role in forest management and accrued benefits both monetary and none monetary were shared well. The government is to provide for a manager and system for running the forest ecosystem, with 60% of the

revenue accruing both from fees and fines. The communities is to receive 40% of the revenue to be shared at the village level. This is to include rewards for performing individuals like scouts charged with specific responsibilities. In addition there were several non-monetary benefits that accrued to the community including grazing and access to the area for traditional need products like medicinal plants.

#### *Governance structure, roles and responsibilities*

The governance structure with the designated roles and responsibilities were clearly defined. The structures were applicable to both forest blocks.

Manager Designate (prescribed by the Forestry Act 2002):

1. The Director of Longido District Council has responsibility of involving village governments as designated manager in the protection and management of the forests.
2. Act as the coordinating committee selected from all villages in charge of management plans and their implementation.
3. Ensure any forest officer in the district at any time by notice is allowed to inspect the forest and make recommendations or suggestions to the coordination committee of forest and natural resources committees and ensure the recommendations are implemented by each village committee.

Forests Coordination Committees:

- Allocate equal shares of accrued revenue to villages as discussed, agreed and approved in meetings.
- Report and work under the mandate of the ward and division natural resource office and provide feedback reports to natural resources committees of the concerned villages and to their respective village councils.
- Advise the natural resources committee of each village on proper forest management.
- Meet every three months or four times or quarterly per year to assess performance.
- Provide or suspend allocations of funds to a village or villages if there were rules and/or guidelines not adhered to by the concerned village (s).
- Submit quarterly reports on the progress of the management of the forest to the particular ward/divisional/district forest officer.
- Oversee collection of revenues from recognized sources and safe keeping of the revenues.

Village Natural Resources Committee:

- Ensure forest boundaries under their jurisdiction are well demarcated and understood by the villagers living in villages adjacent to the forests blocks.
- Supervise implementation of the JFM plan.

- Identify and demarcate, in collaboration with the village council members and other villagers, the forest blocks in management units so as to have different zones for different uses based on the actual situation of the forest, particularly zones/areas for grazing in the forest based on the joint management agreements.
- Receive all visitors who come with permits to visit the forest for the purposes of tourism or / and research and provided them with support.
- Keep all records related to the management activities of the forest blocks including:
  1. Minutes of meetings conducted by VNRC;
  2. Patrols showing various events encountered during the patrols in the forest and actions taken against them;
  3. Offence and fine;
  4. Permits issued for use as outlined in this management plan;
  5. Income and expenditure of forest revenue; and
  6. Raising of tree seedlings and planting of trees (timber and fruit trees).
- Ensure forest guards are undertaking their duties effectively and take responsible actions against offenders.
- Conduct inspections of the forest area at least twice per month.
- Ensure sustainable forest use is in accordance with the formulated and approved regulations.
- Penalize criminals in accordance with the set by-laws for the penalties and enforced the by-laws by incorporating the village councils.
- In collaboration with village councils encourage villagers to participate in the conservation of the forest and other natural resources in the villages as well as stimulating the use of energy saving stoves.
- Use and maintain receipt books and other documents as approved by Longido District Council.
- Establish procedures for issuing permits to ensure permits were those allowed by VNRC only and that the issuance of permits reflects the availability of forest resources and not otherwise.

Ensure forest guards carry out their duties properly and are provided with incentives. The committee also has the role of giving incentive to good citizens who facilitate the arrest of criminals or illegal forest products (done only after certified by the respective Area/District Forest Officer). Motivation for the forest guards and good citizens is 10% of the value of the property seized or fines paid before the allocation between the Longido District and village councils was done.

## 6.7 Enforcement

### *Forest patrols*

Patrol leaders prepared schedules of patrols and attended all meetings of the natural re-source committee to report on the state of natural resources and the forests as invited member of the committee. The leaders were responsible to the natural resources committee; Patrols were conducted twice a week and on need basis. Six guards could patrol together (for all villages) or divide into groups (for each village separately). Reporting incidents went to the VNRCs and to VCs concerned and with a copy to forest officer for the ward, division, or district. Prohibited activities were clearly outlined in the bylaws of the forest reserves.

### *Procedures for dealing with criminals*

Illegal activities detected within the forest were dealt with as follows:

- Culprit arrested by the patrol team or the committee was taken to the village office.
- VNRC put him/her under arrest and called for at least two members of the forest committee and village council to discuss the nature of the offence.
- Any criminal who confessed his/her offense signed an evildoer's book.
- Criminal who admitted to committing an offense had three days to pay agreed fine.
- The culprit(s) forced to pay a fine (cash) for each offense according to established standards.
- If an offender failed to pay the fine within the allocated time, the case was taken to court for hearing and determination.
- If an offender refused to admit the offense, Village Executive Officer was expected to notify the District Forest Officer and work with him/her to establish procedures to take the offender to court with forest committee being witnesses.
- The court has the powers under section 99 (1) of the Forestry Law no. 14, 2002 to make decisions or penalties and fines imposed would be paid in court.
- If forest products were returned to the District Council (complainant), then revenue would be divided 60% to the District Council and 40% for village councils concerned through Forest Coordination Committees.
- Total revenues of the villages, 40% of the allocation, would be distributed equally to all villages.

## 6.8 Sustainability

Sustainability was hedged on aspects that would foster continuity in systems in both Ketumbeine and Gelai Forest Reserves, the design ensured that the two JFMs could sustain themselves. AWF designed the program to ensure sustainability by creating community ownership of the process, community awareness of the financial and non-financial benefits to forest conservation and a revenue stream that goes directly to the villages. The full engagement and presence of the community institution that is driven by community members yet anchored in national legislation such as Forest policy 1998, Forest

Act 2002, Local Government Act that ensured clear provision for their operation instils community ownership of this process. The provision for revenue collection that provided for sharing of revenue between government and community taking care of the forest reserve with clear provision on management of revenue in the bylaws will provide an on-going revenue sources and incentive. In management, the system rewarded good practice by providing for a system of punishment for individuals that went contrary to the law, providing for prohibited activities under section 14(10) of the bylaws, schedule of permits with no-fee and fee payment under bylaws section 15(1) and 16(1). The adjacent forest community that were involved in forest utilization and management under JFM and were trained on different aspects of the forest, ranging from financial management, scout patrol, income generation activities, domestic energy saving, entrepreneurship and PFM.

## 6.9 Cost of PFM implementation

**Table 3 Cost structure for implementing PFM in two forest blocks in Longido, Tanzania**

FINANCIAL YEAR	EXPENSE TYPE (USD)						
	Travel, food & accommodation	Meeting costs	Equipment & admin.	Taxes & expert fees	Grants & partner support	Staff time	Total
<b>FY13</b>	20,043	2,489	1,842	10,867	0	1,108	<b>36,349</b>
<b>FY14</b>	29,837	14,434	737	43,468	17,476	131,967	<b>237,919</b>
<b>FY15</b>	50,498	56,955	20,117	46,996	9,133	182,085	<b>365,784</b>
<b>FY16</b>	58,643	104,319	41,679	4,868	27,150	97,715	<b>334,374</b>
<b>FY17</b>	6,933	52,869	12,447	4,932	0	30,144	<b>107,325</b>
<b>Total</b>	<b>165,954</b>	<b>231,066</b>	<b>76,822</b>	<b>111,131</b>	<b>53,759</b>	<b>443,019</b>	<b>1,081,751</b>

## 7. WMA Implementation Process

To form a WMA, an interested village (or group of villages) must follow a 12-step process. Villages must agree to set aside part of their land for wildlife (the WMA land itself) and elect village members to represent them through a community organization responsible for future WMA management. Through these steps, land use plans are developed, bylaws and regulations put in place, and a Resource Zone Management Plan (RZMP) or General Management Plan (GMP) written that together form the basic framework for the WMA. The Director of the Wildlife Division is responsible for ultimate authorization and designation of a WMA. This 12-step process is simplified in the table below to show the essential components of WMA establishment.

## 7.1 Steps establishing a WMA

**Table 4 Twelve steps of establishing a WMA in Tanzania.**

Steps	Main activities
<b>Step 1. Village assembly agrees to form WMA</b>	Hold general meeting in each village based of Village Council recommendation on the formation of the WMA.
<b>Step 2. Formation of community based organization (CBO)</b>	Villages form a representative community-based organization (CBO) and undertake to make a constitution and bylaws, and register it with the Ministry of Home Affairs.
<b>Step 3. Preparation of the strategic plan</b>	CBO prepares a strategic plan for the WMA.
<b>Step 4. Preparation of the Land Use plans</b>	<ul style="list-style-type: none"> <li>• Form VNRC for each village and train them.</li> <li>• Facilitate the village via VNRCs in the process of doing LUPs.</li> <li>• Survey and map each village and clearly identify settlements area, cultivation, and area for the WMA and maps to be drawn.</li> <li>• Hold full council meeting to approve LUPs for each village and hold District Council meeting to approve the LUPs at District Council level.</li> <li>• Submit all land use plan to the National Land Use Commission (NLUC) for the approval followed by the gazette.</li> </ul>
<b>Step 5: Environmental Impact Assessment (EIA)</b>	LUP for each villages are subject to an EIA. The EIA is facilitated by the CBO and submitted to the National Environmental Management Council (NEMC).
<b>Step 6: Preparation of by- laws</b>	<ul style="list-style-type: none"> <li>• CBO assists villages prepare by- laws to support the LUP.</li> <li>• Each village signs the by-laws and approves together with LUPs.</li> </ul>
<b>Step 7: Development of Resources Management Zone Plan (RMZP)</b>	CBO prepares an interim five-year RZMP or a 10-year (or longer) General Management Plan that zones resource use in the WMA (The process involves holding different workshops for stakeholders and CBO members to discuss the development of the RMZP, its validation and approval and final submission to Director of Wildlife for endorsement and registration process.
<b>Step 8: CBO applies to Director of Wildlife for AA status</b>	The CBO applies to the Director of Wildlife for AA status and is gazette.

<b>Step 9: CBO/ AA applies for user rights</b>	The AA applies to the WD for user rights to the wildlife inside the WMA and applies for a hunting block, if desired
<b>Step 10: CBO/AA applies to the Director of Wildlife for a hunting block (if applicable)</b>	<ul style="list-style-type: none"> <li>• CBO prepares approval for hunting blocks;</li> <li>• CBO submits application for approval of hunting blocks to the Director of Wildlife.</li> </ul>
<b>Step 11: CBO/AA enters into investment agreements</b>	Prepare approval process of the investment agreements by the Director of Wildlife.
<b>Step 12: Investments in WMAs subject to EIA</b>	All investments in the WMA are subjected to an EIA.

The establishment process requires significant financial resources and technical capacities that are not readily available in the villages. Consequently, from its inception in 2003 to date, donors have provided substantial funding for the establishment and operations of WMAs.

**7.2 Design and timeline of the process of WMA implementation**

In January, 2003, AWF was appointed by the Tanzanian Wildlife Division (TWD) to serve as a lead facilitator of three pilot WMAs in Tanzania (Enduimet, Burunge and Randilen) in accordance with the WMA regulations passed in the Wildlife Management Areas Regulatory Act 16 (2) of 2002. AWF successfully guided the WMAs through establishment and registration process. Enduimet achieved its registration in August 2007. In 2009 a study was conducted on the socioeconomic status of local population living around the Enduimet WMA and to examine local perceptions regarding the WMA so as to guide implementation of activities and facilitate future monitoring of the impacts of the WMA. The local communities were very positive of the WMA and felt it supported their livelihoods ranging from increased household incomes from natural resource-based enterprises, employment creation, and community development projects to improvement in livestock production. Key to the success and community acceptance of the WMA by the community were the integration of livestock grazing into the RMZP.

*Lake Natron WMA*

In 2009, AWF commenced the establishment of Lake Natron WMA with support from USAID-Tanzania. It is the largest WMA in Northern Tanzania both in terms of size (4,761 km<sup>2</sup>), number of villages (32 villages, Annex 4) and beneficiaries (55,000). The sheer number of villages in the WMA presented governance, operational and management challenges that needed to be addressed for the WMA to become viable. For example the costs of bringing representatives together, given the number of villages, are prohibitive, and leaving communities out of the process impacts transparency and accountability.

During the establishment process, AWF facilitated the creation of the RMZP and LUPs which were submitted to Wildlife Division for approval and gazettelement of the WMA.

### **7.3 WMA resource management zoning scheme**

Zoning in Lake Natron WMA aimed at providing a framework for achieving and reconciling the two-fold management needs of protecting the natural qualities and environment of Lake Natron WMA and regulating and promoting consumptive and non-consumptive utilization of natural resources to sustain the livelihoods of communities living within the WMA. The zones identified areas where similar types and levels of use and management emphases were applied, based on the Lake Natron WMA's purpose, its outstanding resource values, appropriate uses, and management objectives. Simple zone demarcations were used for easy identification of each zone for administrative purposes. As far as possible, zone boundaries followed roads or clear topographic features, such as rivers, streams and hills.

### **7.4 Community engagement**

The strategic planning process used ensured that all stakeholders of the WMA especially the 32 villages and private sector interested in Lake Natron WMA were given an appropriate opportunity to contribute to the review of the RMZP. This way the stakeholders took ownership of the planning process, the plan was realistic and appropriate and they were committed to its implementation. The planning process adopted for Lake Natron WMA involved a multidisciplinary team that involved village leaders, Lake Natron WMA management, CBO members, AWF and Longido District officials. The objective was to provide an opportunity for as many involved parties (stakeholders) as possible to contribute to the planning process in realistic and appropriate ways.

### **7.5 Resource management**

#### *Tourism*

Lake Natron WMA sought opportunities to forge greater interactions between WMA management, investors in the area, visitors, NGOs and tour operators, in order to improve the services provided and the quality of visitor experience offered in the WMA. In accordance with the Wildlife Policy, the private sector would be responsible for developing tourism in the area. In this respect, the District Advisory Board would play an advisory role for transparent negotiations between private-community tourism ventures within the Lake Natron WMA.

#### *Community*

Lake Natron WMAs management ensured that surrounding communities were receiving direct and indirect benefits from the WMA resources including revenue sharing from hunting and photographic safaris. Through the provision of benefits, local communities were encouraged to increase their moral and support for the conservation of the WMA.

## 7.6 Collaborating with other stakeholders

The management of Lake Natron collaborated with the Longido District Game Officer and other relevant stakeholders to develop a code of conduct for the village game scouts (VGS) who have many roles, but their primary purpose is to monitor and protect wildlife within the WMA boundary, prevent illegal encroachment into the WMAs and respond to incidents of human-wildlife conflicts. However, the subsequent day-to-day enforcement of this professional code of conduct was the responsibility of WMA management.

## 7.7 Economic incentives/opportunities/benefits

### *Monetary*

The Lake Natron WMA had good economic potential. There were four existing lodges in the WMA, linked to five hunting concessions that service hunters and photographic tourists in hunting off-season. Since the lodges only paid revenues to the WMA from bed-night fees for photographic tourism and not hunting, they only had potential to contribute income seasonally. With the registration of the WMA pending by the time the project came to an end the WMA did not receive any money from investors within the WMA. Instead, the five hunting blocks paid annual concession fees totalling US\$138,125 to the respective villages where they were located, as their agreements were established prior to the WMA. The amounts paid were dependent on availability of resources based on TWD classification.

Lake Natron neighbouring the Lake Natron WMA is as a Ramsar site, a significant breeding ground for the lesser flamingo (*phoenicopterus minor*) and habitat for an abundance of water birds, endemic fish and a variety of invertebrates makes. This makes it an attractive destination for nature enthusiasts that could potentially contribute to increased visitation, revenues and viability of the WMA. However, the site also had significant mineral wealth and there are continuing pressures to develop soda ash mining in the area. While the process of establishing the WMA entailed strategic analysis of both the tourism and livestock potential, planning for tourism development needed to be fine-tuned.

### *Non-monetary*

Some of the non-monetary opportunities of Lake Natron WMA included:

- Development and maintenance of infrastructures such as roads.
- Reduced conflicts between villages as WMA boundary are clearly marked out with assistance of all communities.
- Promotion of livestock development in villages to improve and diversify people's livelihood options.
- Environmental education activities in all villages.
- Establishment of community conservation banks whereby environmentally friendly projects would be supported in the villages in Lake Natron.

- Support in building the necessary skills in the local communities; for example in entrepreneurial skills and the facilitation of community savings and loan schemes, production of traditional artefacts, traditional foods or the provision of alternative protein sources other than bush meat.
- WMA management working with Tanzania Wildlife Research Institute (TAWRI) and other stakeholders to identify areas prone to human-wildlife conflicts and developing affordable mitigation strategies.

### *Benefit sharing*

Revenue sharing is guided by the WMA regulations provided by TWD, however, the District Game Officer had the powers to advise on the appropriate revenue sharing as necessary. Revenues to support community projects are governed by agreed arrangements with all villages. In the case of Lake Natron, the only revenues shared between the villages were revenues from hunting concessions. Payment from bed night fees generated from the lodges within the WMA still went to individual villages that signed direct agreements with tour operators or tourism investors because these agreements were in place prior to the WMA. It was expected that after the registration of the WMA the next step would have been to revise all the agreements through the AA of the WMA and that would have resulted in the WMA sharing the revenues equally and equitably among the all villages that set their land aside for conservation and making up the WMA.

## **7.8 Governance/roles and responsibilities of central/district/village and WMA levels**

Local communities form the foundation of any WMA. However, the WMA itself is managed through a range of institutions beginning at the village level and feeding up through district and national levels. WMA administration at the village level involves the Authorized Association, Village Council and Village Assembly. The AA, monitored by the Village Council, is the key organization responsible for policy and strategic matters relating to WMA management, including acquisition of user rights, development of benefit-sharing mechanisms, budgeting and recordkeeping, communication of policies, and private sector engagement. At the district level, the District Council and the District Natural Resources Advisory Board (DNRAB) are the responsible agents. The District Council is a local government organization mandated to provide key administrative support to the AAs, including assistance in establishing WMAs, guidance on village LUPs and bylaws, assistance in negotiating private sector contracts, and issuance of residence hunting licenses to the AAs. The DNRAB acts as an arbitrating body for conflict resolution and provides critical legal and technical advice to the AAs in WMA management and contract negotiations. WMAs are co-managed by the Wildlife Division at the national level through the WMA Support Unit.

### *Accountability*

Lake Natron WMA management plan indicated areas that would promote accountability on WMA benefit sharing but did not outline what the regulation said about it. There was therefore no clarity on how accountability was going to be promoted. Like most WMAs within Tanzania, Lake Natron WMA is

heavily controlled by Director of Wildlife with low community inputs. This is because makes decisions regarding setting and allocating wildlife hunting quotas.

### *Transparency*

Same as in the case of accountability, the various fees to be charged were not indicated in the management plan and this could be an area of low transparency. It was to be promoted by the guidelines system, which gave the Director of Wildlife Division exclusive right in decision making. Transparency is critical in ensuring the success of WMAs. This means transparency at all level—benefit sharing, expenses, fines and land use.

### *Equity*

The local communities were expected to receive direct income in cash and also other forms of assistance to increase their overall benefits. This raised the equity value from the community perspective, however, there was need for increased transparency and accountability so as to ensure true equity.

## **7.9 Enforcement**

The law enforcement was carried out using traditional councils and VGS from all villages. The VGS were responsible for resource (wildlife) protection in and around WMAs. VGS were also responsible for enforcing grazing systems within WMAs. In the case of Lake Natron WMA, there was need for the VGS to be equipped to enable them fully enforce the by-laws of the WMA. The WMA management also needed to collaborate with the Longido District Game Officer and other relevant stakeholders developing a code of conduct for the VGS. However, the subsequent day-to-day enforcement of this professional code of conduct would continue to be the responsibility of WMA management.

## **7.10 Sustainability**

AWF worked to ensure sustainability by investing in the local communities and engaging them from the start of the process so that they would feel ownership of the process and work to support the WMA, which was providing benefits to their households and villages. As indicated prior, the scale of Natron WMA makes financial viability a challenge. The engagement and buy-in of local and regional government is also critical in ensuring sustainability and this was achieved in the development process. A clear benefit sharing system was going to be key in sustaining the ecosystem investments in terms of WMA.

## 7.11 Cost of implementation

*Table 5 Cost structure for implementing WMA in Longido, Tanzania.*

FINANCIAL YEAR	EXPENSE TYPE (USD)						
	Travel, food & accommodation	Meeting costs	Equipment & admin.	Taxes & expert fees	Grants & partner support	Staff time	Total
<b>FY09</b>	0	0	0	0	0	458	<b>458</b>
<b>FY10</b>	71,906	93,044	13,049	29,207	7,061	85,797	<b>300,064</b>
<b>FY11</b>	35,203	14,518	4,798	165	104	45,762	<b>100,550</b>
<b>FY12</b>	109,235	38,626	26,160	60,846	161,512	151,794	<b>548,173</b>
<b>FY13</b>	64,306	134,973	25,525	104,982	335,380	190,773	<b>855,939</b>
<b>FY14</b>	43,738	108,486	12,770	16,829	49,512	0	<b>231,335</b>
<b>FY15</b>	1,541	26,803	2,043	2,601	0	0	<b>32,988</b>
<b>Total</b>	<b>325,929</b>	<b>416,450</b>	<b>84,344</b>	<b>214,630</b>	<b>553,569</b>	<b>474,584</b>	<b>2,069,506</b>

## 8. Comparative Analysis of the Commonalities and Differences between PFM and WMA

**Table 6 Summary of major areas of commonalities and differences between PFM and WMA process.**

Commonalities
<ul style="list-style-type: none"> <li>• Participatory processes involving communities.</li> <li>• Preparation of natural resources management plans and approval by the villages.</li> <li>• Application for user rights from Government entities through joint management agreements.</li> <li>• Investments are jointly approved.</li> </ul>
Differences
<ul style="list-style-type: none"> <li>• Formation of a CBO to manage the WMA. In PFM the management is through VNRMC.</li> <li>• EIA for LUP in WMA, while this process is not necessary during the PFM process.</li> </ul>

### 8.1 Policy frameworks

The paradigm shift in wildlife and forest resources management happened around the same time in late 1990s. The forest sector formulated the Forest Act 2002 and Wildlife Act came later in 2009 although the WMA regulation of 2002 was clear on the procedure and steps to follow, the same holds true in the forest sector. The CBFM detailed provision relative to JFM and wildlife provisions. The forest sector had rich implementation experience in forests such as Duru-Haitemba, Mgori and Suledo, which allowed for development of rich community based institution that also informed the policy. While the forest sector has four type of forest management, that is village land forest reserves, community forest reserves, private forest and National Forest with clear ownership pronounced, wildlife legislation does not provide such ownership clarity creating a greater sense of forest ownership by community. While the forest legislation has provided forest utilization guidance such as extraction of products, tourism, research, and cultural practices like rituals with clear fee or payment system, the wildlife ecosystem lack such provision in spite of the ecosystem being within the same community area. The institutions provided under forest legislation are a lot clearer like the village forest committee that handles community issues related to forests, in case of the wildlife the provided formation of CBO is not expressly clear in terms of connection with village administration.

The wildlife sector's provisions for local management, through establishment of WMAs, contrastingly require new community level institutions. Specifically, forming a WMA requires communities, through their village assemblies, to elect a 'community-based organization,' which can manage the WMA belonging to several villages and be granted 'Authorized Association' status by the Director of Wildlife. The 'authorized' status simply means that the CBO is given user rights to the wildlife in the WMA,

including limited rights to sell those user rights to third party investors (e.g. safari hunting companies). Prior to becoming 'authorized,' the CBO must be registered with the Ministry of Home Affairs. The Village Councils have a relatively limited role in directly managing the WMA, except to receive revenues earned from the CBO and then, through normal village government procedures, budget and use those earnings. A major challenge for communities in forming WMAs is creating this new CBO institution, which will have considerable power over village lands and resources as the manager of the WMA. Agreeing on a constitution, membership, and leadership can be time-consuming and requires a great deal of grassroots engagement if the CBO is to be an accountable and effective organization. This is also a costly exercise.

The institutional mismatch between the WMA process and CBFM has impeded sectoral integration, as communities and donors have generally supported implementation of one or the other sector's procedures. It remains unclear if, for example, the same area of village land can be legally gazetted as both a WMA and a VLFR. From the village perspective, however, obtaining legalized flows of both wildlife and forest products would substantially improve local incentives for forest and wildlife management. The legal uncertainty caused by the parallel and disconnected development of wildlife and forest policies and laws results in inefficiencies and wasted opportunities for poverty reduction and sustainable land management.

Although the legal basis for JFM is clear, uncertainty regarding benefit sharing as well as the low level of overall benefits available is undermining its viability in the long-term. With regard to JFM, the law clearly states that forests may be managed through a range of partnership arrangements between a wide range of players within government, NGOs, private sectors and community groups. To date however, the vast majority of JFM agreements have been developed between villages and central government and cover montane catchment forests with high biodiversity and other ecosystem-service values. Despite the major efforts of government to support JFM over the past 15 years, its long term viability hangs in the balance for the following reasons. Firstly, given the high conservation status of many of the forests under JFM arrangements, the total level of permitted benefits that may be legally harvested from the forests is very low and may be significantly less than the range of benefits people obtained prior to JFM being established, albeit illegal in nature. Secondly, even where opportunities exist for extractive use of forest reserves, such as in production forests where timber harvesting is permitted, the relative share and type of benefits that can be captured by communities has yet to be agreed on and the mechanism for sharing of benefits is not yet in place. This lack of clarity as well as lost opportunity costs is problematic for the future success of PFM.

Of the two PFM models in Tanzania, CBFM appears to be the most effective in improving forest condition and reducing overall levels of disturbance. Many studies conducted over the past five to ten years point to the fact that when rights and responsibilities are fully devolved, as under CBFM, incentives appear to be sufficient for communities to invest in forest restoration and long term management. This appears to be the case, even when the area under management is in a state of high degradation at the time that management begins, and a long period of recovery and regeneration is needed.

According to literature on implementation of PFM in other forest blocks within Tanzania, PFM appears to perform differently under divergent conditions and a range of inter-linked factors appear to

influence its ability to deliver positive forest management, livelihood or governance outcomes. Perhaps the most important factor that determines the efficiency of PFM at the local level is related to capacity and governance issues at the local government level and the ability of the district staff to work effectively as a team to support community management and governance.

In both forms of PFM, evidence collected by other forest researchers indicate that without deliberate and conscious efforts to avoid elite capture, poorer members of the community may receive minimal benefits from forest management and in some cases may end up negatively impacted. Such deliberate efforts include introducing safeguards for the poor, the waiving of fees and licenses for poorer members of the community and ensuring that the voice and concerns of the poor are heard and taken account of in village level forest management decision-making. If PFM is really to provide positive impacts on poor, forest dependent households and communities, firstly a greater share of the benefits from PFM need to be devolved down to the community level, particularly with regard to JFM, and secondly, PFM programs must deliberately target the poor and marginalized in order to benefit them.

Seasonal forest users such as Masaai pastoralists may not be included in planning processes, either as they are not in the village at the time key decisions are taken, or because they are not viewed by the village as having a legitimate claim on forest use and management. This inevitably leads to conflict.

A broader program of support towards natural resources management at district and village level has the potential to unlock some of the policy barriers to integration of forestry and wildlife management at the local level. Rather than supporting forestry investments alone, proposals are focusing on broadening the potential range of investments eligible which could include forestry, wildlife, and wetlands. Lake Natron WMA with the two forest blocks would fit in such a scenario very well, and ensuring joint financing by both donors and government. This is in recognition of the fact that to date, government and donors alike have tended to support specific sub-sectors, such as forestry or wildlife, and operate through parallel delivery mechanisms, as well as supporting particular, identified districts or regions, rather than adopting a national approach, which has created inefficiencies and increased transaction costs for district governments and rural communities alike while opportunities for integrating multiple benefit streams from the integrated management of natural resources have been missed.

Locally based monitoring also provides villagers with the opportunity with which to demonstrate active and effective management to higher levels of government. Villages undertaking PFM are required to demonstrate that they are managing their forests according to the management plan and the requirements of the Forest Act. But up to the point when both the PFM and WMA projects facilitated by AWF came to an end, there has been no established way in which villages could report on their joint progress and keep District Council staff informed regarding their management activities.

The highly sectoral nature of natural resource legislation constrains opportunities for communities to obtain multiple benefit streams from the management of forest and wildlife resources on village land. The sectoral nature of forest and wildlife laws means that the process for establishment of community based forest and community based wildlife management differs markedly. Although they do not necessarily conflict, a number of legal “grey areas” constrain community level managers wishing to manage both forest and wildlife resources in a given area of village land. As a result, the possibility of

obtaining multiple revenue flows from wildlife and forest harvesting is being lost, which significantly reduces local incentives for long term natural resources management. In addition, these process are expensive, require significant community development and various governance structure, which become onerous and confusing, leading to conflict. A streamlined, simplified and more cost-effective process is necessary to ensure sustainability and effective conservation.

## **8.2 Requirements for land uses stipulated in the policy frameworks**

The two wildlife and forest legislations had clear provision for LUP prior to approval by designated authority. They also had provisions for EIAs for projects with significant impact. In terms of agreement, the two wildlife and forestry sectors had provision for agreement with Section 46(1) in Forest Act 2002 providing for clear aspects of agreement on revenue sharing, which was left to the parties involved to decide on how to share collected revenue and got it deposited directly into community account. The 2002 guidelines under Wildlife Act only stipulated that safari operators pay central government and CBOs on behalf of WMA. The Director of wildlife has exclusive rights and say over wildlife utilization, which jeopardized the community position because have very little say in what they received as benefits. The agreements in wildlife and forestry provides for off-take of products.

## **8.3 Approvals processes**

Approval process is provided for in both WMAs and FM sectors, but there are differences. In the forest sector, the Village Council must request the village assembly for approval of plans and arrangement, at the community or district level. However, in the case of wildlife this is done at much higher level of the Director of Wildlife and Minister of Natural Resources and Tourism, meaning that although community institutions are consulted the mandate for approval lies higher up in the governmental bureaucracy. While communities are very conversant with forest sector arrangement, the wildlife sector arrangement is usually poorly understood. This has resulted in long delays and conflict because of false information and lack of control and a local level.

## **8.4 Implementation**

### *Design and timeline of the process of implementation*

The forest sector has very clear process of engagement for design relative to the wildlife sector as the institutions are clearly defined and clear community connection. This makes the implementation very clear as expectations are clearly defined in the legislative guidelines. This is not the case with wildlife where the Director of Wildlife and central government has significant authority and the community equity is not clear. A review of the guiding legislation would help in clearing the equity distribution as is the case in forest sector. In case of Lake Natron, the WMA is too large with 32 villages making operations expensive and ineffective compared to other WMAs such as Enduimet with only nine villages. It has been noted through experience that the process to establish WMA is lengthy and costly and no single community can afford the current costs involved without the support of external donors. Thus, a cost benefit analysis should be made to justify their establishment, as was done in Enduimet.

### *Land use planning*

Land use planning in the two sectors (wildlife and forestry) is participatory and realistic. However, financially the process is expensive for local communities in the absence of external support. In addition, macro-level planning should be urged where possible to ensure complimentary between villages as well as cost effective planning.

### *Community engagement*

The forest sector has clear engagement process and community members are aware of their expected role and responsibility. The village institutions has a clear process of engagement of community through forest village committee that connect to the village assembly, while in the wildlife sector, this is disjointed and not so clear. In wildlife the AA is persuaded to engage the local community more rather than have clear provision of this engagement through village institutions that should connect to the district level. Effective community engagement is crucial in both sectors.

### *Resource management*

The forest sector has very effective system of resources management that also provides for punishment to offenders that escalates from village to district level. This allows the scouts and village committee to engage effectively in resource management. In wildlife this is left more to central government. As noted in Enduiment, the presence of other actors such as the Big Life Foundation and Honeyguide Foundation among other stakeholders are necessary for effective management. These partnerships have enabled Enduimet to have better performance compared to Lake Natron, but is also smaller with Lake Natron being almost six times bigger at 4700km<sup>2</sup> relative to Enduiment 750km<sup>2</sup>. Distribution of revenue and other benefits is key to effective management, as this is one of the key components to incentivizing conservation behaviour.

## **8.5 Economic incentives/opportunities/benefits**

### *Monetary*

In both Gelai and Ketumbeine Forests the monetary benefits to the local community is very clear both in terms of sources and distribution. In Enduimet and Lake Natron, although they generate good money the sharing between central government TWD, AA and communities is not very clear due to lack of guidelines on how monetary can be shared. The benefit sharing structure in particular for WMAs should be reviewed and improved to ensure timely delivery of revenue, adequate revenue returning to the community as opposed to government and equitable distribution at community level.

### *Non-monetary*

In both wildlife and forestry, the non-monetary benefits are both in the protected areas and outside. Organized grazing is effective in both with restrictions on sensitive ecosystems like water catchment areas. While other non-monetary benefits include farming improvement, infrastructure, and reduced conflicts in both sectors. Forestry offers slightly more as it allows extraction of plant material like firewood and medicinal plants. In wildlife the need for compatible agricultural practices in designated zones is a challenge that limits community options.

### *Benefit sharing*

The forest sector has a clear 60%:40% split between government and the community in both Ketumbeine and Gelai Forests. In the case of WMA, the Ministry provides different approvals and cash flow takes long with the Wildlife Director having a very strong say on distribution. Payment of cash first goes to central government, making it cumbersome to get it back to the community. The delays in payment to villages is extremely problematic and a disincentive to conservation. The capacity of the WMAs is still low when it comes to checking and enforcing revenue collection. In addition, the little revenue generated are subjected to heavy taxes, 35% percent of all the revenues generated from photographic tourism is paid to the government. Very little, if any, of the 35% paid to the government is ploughed back to WMAs, which ideally should have been through the established Wildlife Protection Fund. The taxation on WMAs is a further disincentive to communities to engage in and support WMAs. This should be amended. In PFM the possibility of paying directly to the accounts of community groups at the village level and mode of operation of such accounts is very clearly provided for in the legal framework.

## **9. Conclusion and Recommendations**

While integrating community-based wildlife and forestry processes would be greatly aided by increased collaboration between the Forestry and Wildlife Divisions, the most critical leadership may have to come from local initiatives. By experimentally developing both WMA and Village Forest Reserve through a JFM over the same areas and seeing if their respective institutions can manage these areas collaboratively, some practical basis for integrating wildlife and forestry may be developed and over time this may contribute to harmonizing the sectors at the policy level.

Greater attention should be paid to ways of harmonizing the regulations for forestry and wildlife sectors to avoid divergence, cut costs, decrease governance complexities and increase incentives to communities and enhance conservation. The stakes are certainly high at the local levels that this should increasingly become a priority for facilitators such as AWF and donors in both sectors. Below are some specific policy recommendation to move the harmonization process forward.

### **9.1 Policy recommendations**

What is needed if PFM is to have a long term future is legally binding mechanisms that allow communities with signed agreements to capture significant benefits from the management of forests. A number of proposals have been raised by the Ministry of Natural Resources and Tourism and overall the recommendation is for the percentage allocations going to villages be increased so as to incentivise management. Some specific recommendations are summarized as follows:

- Any revenues arising from forest management (in the form of levies, fees and royalties) should be shared 40% to the village government and 60% to either the District Council (if it is a Local Authority Forest Reserve-LAFR) or Central government (if it is a National Forest Reserve-NFR).

- Fines imposed by village forest management committees implementing a signed JFM agreement on individuals undertaking illegal activities inside NFR or LAFRs should be fully retained (100%) by the village government.
- Forest products or equipment used to harvest that is confiscated by village governments undertaking routine patrols in all or part of a forest covered by a signed JFM agreement should be sold and 100% of the revenue should be retained by the village government.
- Forest Harvesting Concessionaires should be required to make two payments when obtaining a license to harvest timber from an area of forest covered by a signed JFM agreement. But before the license are issued, there is need to conduct resource assessments that will determine whether the license should be issued or not:
  - One payment (Timber Royalty) should be made to Forestry and Beekeeping Division (FBD) or the District Council (depending on whether it is a NFR or LAFR) at 60% of the current royalty rate.
  - A second payment (Local Management Fee) should be paid to a village account (the village responsible for the management of that forest, or part of forest where the trees are harvested) at 40% of the current royalty rate.

This is recommended on the basis that communities in JFM agreements often are more implicated in the day-to-day management of the reserve, and thus deserve more of the benefits. There is also often insufficient incentive or compensation to the villages to incentivize management and dis-incentivize illicit use.

- While tourism was not a feature in Gelai and Ketumbeine Forests, it is an opportunity for additional benefits where the forest areas can attract photographic tourism. The JFM guidelines stipulate a 26% allocation of tourism revenues for communities, which is well below the portion allotted under WMAs, and should be significantly revised upward to incentivise community investment and engagement in this activity.
- Where there are multiple villages implicated in the management and benefit sharing, AWF has established an inter-village council with representation from each of the villages. The inter-village council reports into the District Council and TFS separately, but to enhance the governance and accountability of this body, a separate body in the form of a Trust with representation of both the owner of the forests (TFS and the District) and the village council should provide oversight to the inter-village council. The Trust would provide a check and balance for monitoring implementation of agreed management practices under the JFM and overseeing the use and management of funds.

The steps and process for establishing a WMA are provided in the Reference Manual for Implementing Guidelines for the Designation and Management of WMAs in Tanzania, produced by TWD. The establishment process is key to successful implementation of WMAs and subsequent management. However, it is acknowledge that the steps and process to establish WMAs are very thorough, it is lengthy and costly and communities on their own cannot afford the costs involved without the support of external donors. There is therefore need to reduce the number of steps for establishing a WMA and this

will also include TWD and Districts streamlining the process for establishing WMAs as far as possible reducing the time for approval and process for negotiating land use plans which overall would call for the revision of the WMA regulation.

#### *Ministry of Natural Resources and Tourism (MNRT)*

The WMA regulations and guidelines need to be revised to ensure that there are provisions for the establishment process to be signed off by a majority in the villages. There is need to provide regulation on number of villages that can be accommodated in one WMA (10 at most). The case of Lake Natron with 36 villages makes governance challenge, as the costs of bringing representatives together are prohibitive, and leaving communities out of the process impacts on transparency and accountability.

It should also be made a requirement at the stage of developing the constitution that a provision is made for employment of skilled staff in the management of the WMA as this is a challenge in terms of WMA performance.

#### Revise WMA Approval Processes

The WMA regulations and guidelines should be revised to ensure that there are provisions for the establishment process to be signed off by a majority (at least 2/3) in the villages. In addition, communities should have the ability to meet and discuss these matters as they see fit. The presence of WD may be intimidating for some community members; therefore, communities should have the right and ability to meet without WD present.

#### Free Prior Informed Consent (FPIC) Processes Followed

A thorough analysis of stakeholders should be done following international protocol to ensure that even the minority have been engaged in the WMA establishment process, including women, youth, disabled and disadvantaged. Education and understanding at this early stage will greatly reduce risk of conflict in future. The establishment of WMAs should follow international Free Prior Informed Consent procedures (FPIC). These standards ensure full participation and education of communities in a transparent and equitable manner.

#### Change the name WMA to CWMA

Given that communities are central to WMAs and the land is village land, AWF recommends that the term WMA be changed to CWMA (Community Wildlife Management Area). Using the term “community” gives villages more ownership and therefore motivates them more to support conservation initiatives. The change in terms would also indicate “devolution of powers” to communities to manage wildlife on village land. This will increase buy by the communities and reduce conflicts.

#### Management plans

Management plans are core to both approaches, and provide the basis for the benefit sharing agreements and agreed uses and zones within both WMAs and PFMs. The resource mapping processes are, in fact, quite similar between the two processes. One issue that could strengthen Tanzania’s overall approach and oversight over the management planning processes, and support reporting into international conventions and targets such as the Aichi Targets under the Convention on Biological Diversity and the Sustainable Development Goals, would be the establishment of a unified database for all the management plans prepared for WMA and PFM processes, perhaps housed under MNRT as

the parent ministry responsible for both. There is also a need to increase the use of international standards such as the IUCN categories for protected areas to facilitate coherent reporting at the international level, and registration in international systems such as the World Database on Protected Areas managed by United Nations Environment Program – World Conservation Monitoring Centre. Macro-level planning should be assessed and other ways to avoid planning duplication, as this is costly and can become confusing at the implementation level.

#### *Tanzania Wildlife Authority (TAWA)/The Wildlife Division (TWD)*

The 35% taxation (25% to TWD for the ‘so called’ Wildlife Protection Fund and 10% to District) on WMA revenues is high. The key recommendation is that the percentage be reduced. Otherwise should the Wildlife Protection Fund kitty not become functional due to few WMAs remitting their share of taxation, then TWD should allow a certain percentage of the taxation to go directly to the WMA to meet WMA operational costs such as support to scouts salaries and food rations. Alternatively, TAWA should begin to consider support to WMA activities such as anti-poaching operations to reduce WMA operational costs. If not the burden will be continue to be left to NGOs which are donor dependent, which is not sustainable in the long run.

AWF proposed that there be a sliding scale structure for the WMAs (as with hunting blocks) with a commensurate payment to TWD component (i.e. WMAs in class A provide the full 25% to TWD, WMAs in class B pay 10%, and WMAs in class C pay 5%).

Benefits that accrue to communities should go directly to the communities to avoid any and all delays and conflicts. Other successful CBNRM programs such as in Namibia do not have a tax on benefits, provide revenue directly to communities and the government provides financial support to the communities as opposed to being a beneficiary of communities.

There is need to establish a unified data collection system and put in place the basic resource monitoring program to be able to justify existence of the WMAs. Data is needed on wildlife populations, poaching incidences, human-wildlife conflicts in WMAs, especially related to the crop destruction by elephants, livestock predation by carnivores and habitat encroachment by villagers illegally extending their cultivation plots and grazing livestock into restricted WMA areas.

#### *Tanzania Forestry Service (TFS)*

There remains only a handful of examples of JFM agreements across the country, and there are many examples of the process being stalled at decision making points. If there is sincere commitment to JFM as a strategy of forest management, TFS should take more concerted action in promoting and enabling JFM agreements.

#### *National Land Use Planning Commission (NLUPC)*

While LUP is the core to the WMA and CBFM processes, it is not directly necessary for the JFM. Land use planning is the process by which communities are empowered to negotiate trade-offs between uses, boundaries and use zones are demarcated. In the LUP process, the areas for wildlife management are zoned to create connectivity in habitat needed for wildlife movement through the landscape. Land use

plans also enable the village to secure the tenure and user rights that allow the communities to enter into business agreements relating to the resource base. This is not the case with JFM, which applies to forest areas owned by the state, and instead the rights are based on access and NTFP harvesting rights, eco-tourism, beekeeping and water access. The basis for the access is the management agreement for the forest, which is jointly developed with the communities, and includes a resource zone management plan. The National Land Use Planning Commission, which is responsible for scaling up participatory LUP across the country, should be aware of opportunities for creating WMA and CBFM agreements to achieve national targets for land and resource management. The work of the Commission presents an opportunity to educate communities about the opportunities available to them and potential benefits from engaging in these processes, and empower action by guiding them on the steps necessary to carry forward with a WMA, CBFM or JFM if they express interest.

## **9.2 Implementation recommendations**

### *NGO facilitators*

There is need to assess business opportunities and the economic viability of WMA or PFM before establishment. This is to avoid time and resource wastage during the process of establishing a WMA or PFM. Engagement of the communities in this process is also critical so that they can understand the costs and benefits. During the process of establishing Lake Natron WMA, time was lost in between the implementation period because questions on the viability of the WMA were raised while field staff were in the middle of the WMA development process. In the case of Lake Natron WMA, AWF could not produce clear business models that would determine if Lake Natron was going to be a viable or not due to the existing policies. Likewise, for the JFM in Kolo Hills, the economic model remains weak with limited financial returns to communities for forest management costs.

Because of the establishment costs, it is important before any investment is made in the establishment of the WMA, a cost benefit analysis is completed to justify their establishment. This should involve assessment of the potential conservation outcomes and business opportunities to determine if the WMA will be ecologically and economically viable and sustainable. This pre-feasibility assessment process which looks at financial, ecological and social sustainability would help ensure investments in the establishment process are warranted.

### Business planning to include skilled staff

When developing the budget for the WMAs, and the cost benefit analysis, a provision should be made for employment of skilled staff in the management of the WMA. The regulations provide for general staff recruitment and training, but it is necessary to specify the kind and quality of staff in the constitution. The challenge will be the remunerations, which will be discussed under benefit sharing below. However, if these skilled posts are not planned and budgeted for, the WMA will not succeed.

### Limit CBO representation numbers

The regulations should provide for selection of representatives to the CBO based on zones rather than villages in circumstances where a number of villages forming the WMA is beyond 15. As a community driven process, communities should have the flexibility to select appropriate committees as per their

local traditions and processes. The guidelines should ensure that the management and selection of committee members should be done in a transparent manor, but should not dictate numbers.

#### Provide conflict resolution training or expertise

With some WMAs facing conflicts, conflict resolution efforts need to be heightened and take greater recognition of legitimate concerns that member villages have in relation to their membership to the WMA, benefit sharing and stakeholder involvement. WMA senior staff, should they be qualified, should be provided with conflict resolution training or the budget should include provision for a conflict resolution mitigation expert.

#### Complete business plans early in the process

Business planning and cost benefit analysis should be part of the initial WMA establishment. This will determine sustainability and economic viability of the WMA and guide the kind of investments the WMA needs to operate.

#### *District Officers*

Districts should explicitly plan for JFM or WMA options in the course of their planning processes, and should incorporate awareness and training for villages in their outreach programs for village natural resource management committees. District Council officers should abide by donor-NGO grant agreements. Council officers always wanted to ensure they were paid their official government rate allowances which were way beyond donor/NGOs recommended rates. This resulted in the establishment of WMA and PFM processes being perceived as allowance making processes and at times generated conflicts between field staff and the District Council staff.

#### *Communities*

With increasing conflicts in the WMAs, conflict resolution efforts need to be heightened and take greater recognition of legitimate concerns that member villages have in relation to their membership to the WMA and benefit sharing.

For WMAs to become economically viable there should be a cap and minimum expenditures on allowances for CBO and AA representatives. The decision on how much allowances CBO and AA representatives should be guided by a cap on the number of meetings held in a year. This should be enshrined in the WMA regulations (if revised).

To ensure transparency, accountability and timely availability of funds for WMA operations, it is proposed that investors issue three cheques (WD, District, AA) and the AA collect and then distribute the cheques at the end of each quarter. This will enforce rules, build buy-in at the District, and ensure efficient/effective collection.

### **9.3 A Proposed Integrated Landscape Planning Approach**

Based on the comparative analysis of the PFM and WMA processes and AWF recommends that planning for WMAs and PFM should be more systematic and streamlined into an integrated LUP approach and diffuse conflicts by going through the following proposed steps:

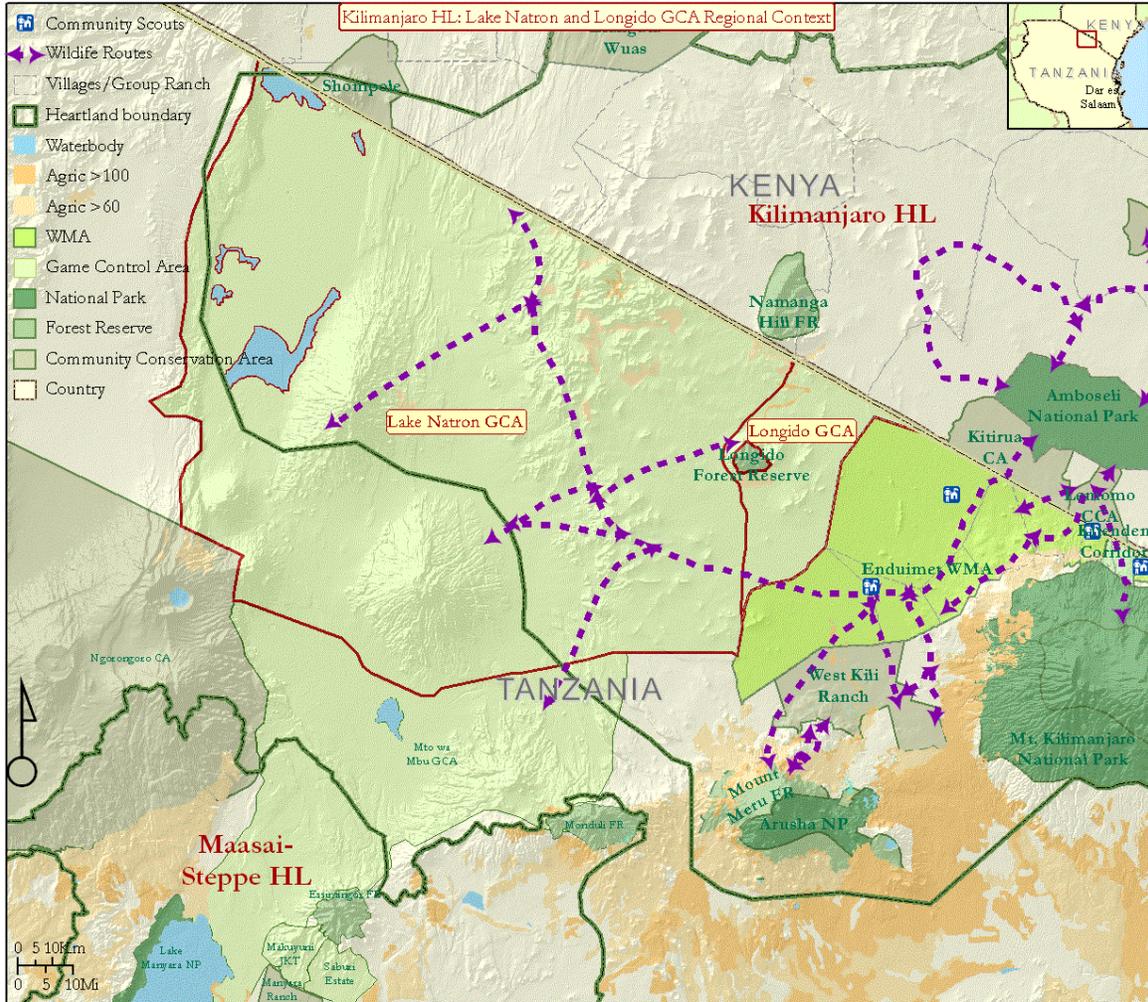
- Start with macro-zoning for the whole area, led by the District with technical input to ensure connectivity in the landscape needed to deliver ecological outcomes.
- Combine village LUP processes and get a common agreement to plan together to reduce on the planning costs.
- Create a macro-level plan that defines zones for a range of uses in the landscape such as wildlife management, livestock grazing, agriculture, tourism, settlement, infrastructure, etc. This macro-plan should then inform the individual village land use plans which stipulate the agreed areas for a WMA or CBFM and set out the by-laws for enforcement, and are submitted to the government for approval.
- Planning should be facilitated by the District land planning officer with representatives from wildlife, forestry and water basins and all villages.
- There is high dependence on photographic tourism and hunting as major sources of revenue. It is high time WMAs diversifies their revenue sources if they are to be sustainable and this should include the incorporation of other enterprises such as livestock, payment for ecosystem services and micro-enterprises.

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# Annexes

## Annex 1. AWF's Kilimanjaro Landscape

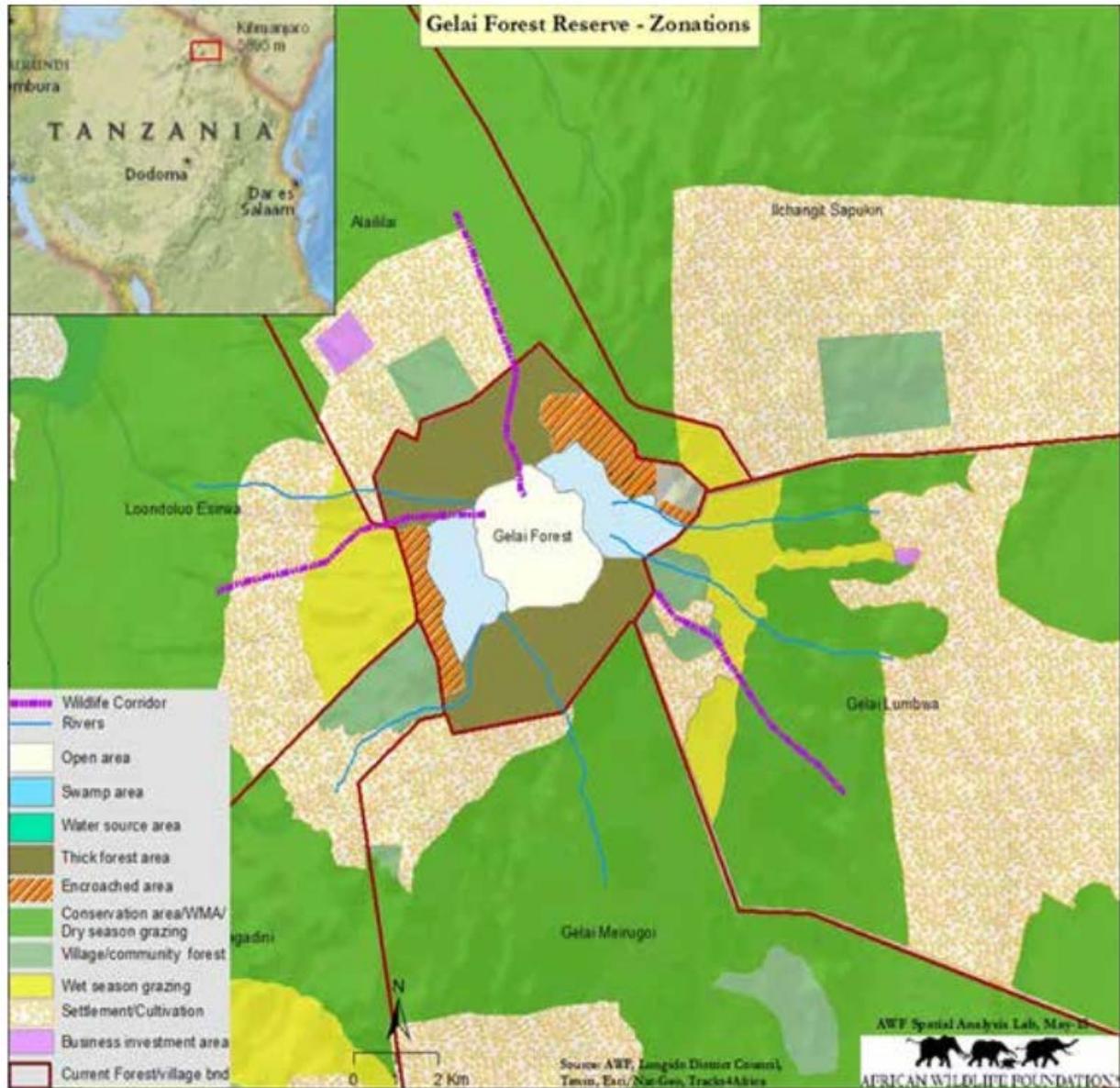


Sources: AWF, KWS, Monduli District, FAO-Africover, SRTM 90m, Tracks4Africa

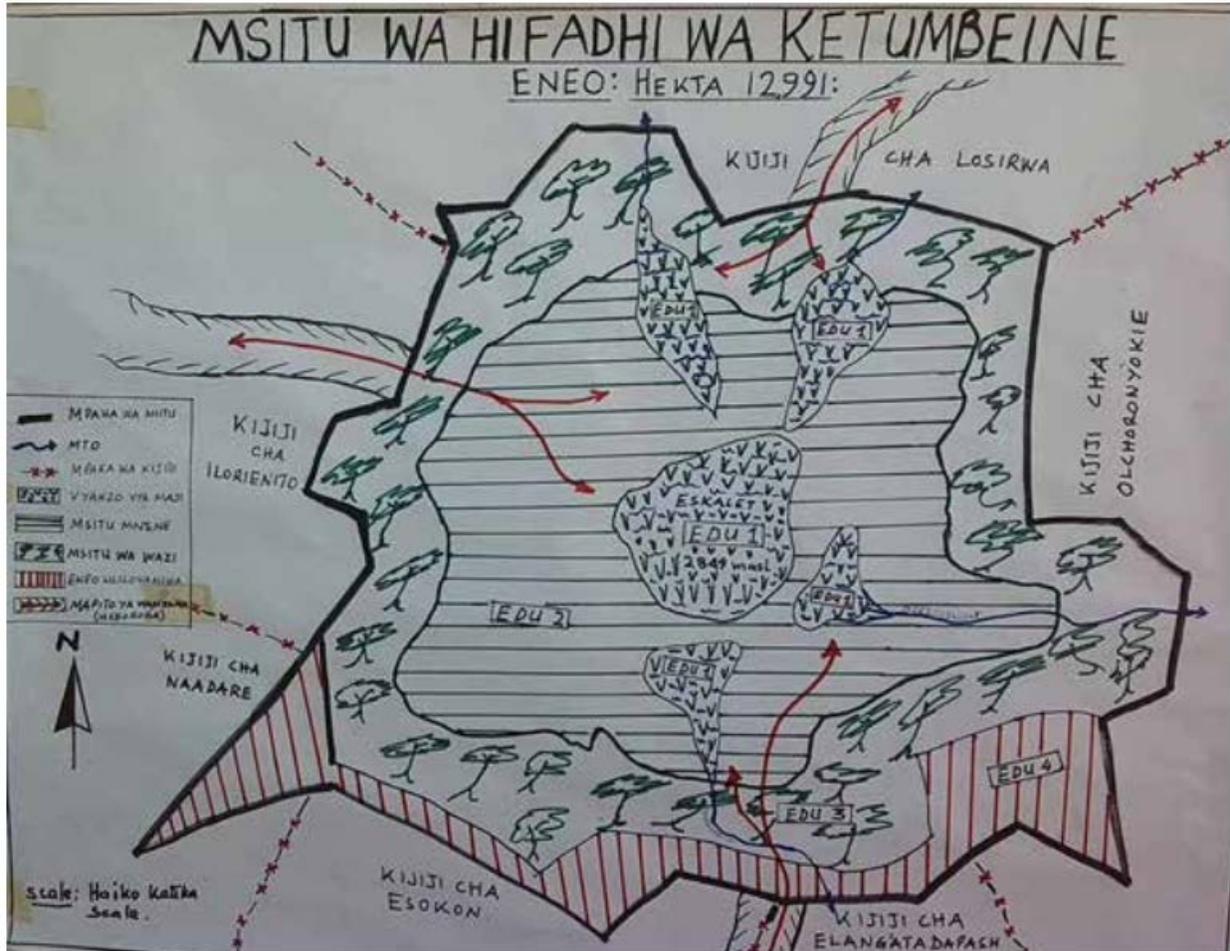


AWF Spatial Analysis Laboratory, Feb-10

## Annex 2. Gelai Forest Management Units



Annex 3. Map of Ketumbeine forest showing the Forest Management Units



# Annex 4. Map of Lake Natron WMA

