

From Promise to Performance?

Wildlife Management Areas in Northern Tanzania



Emmanuel Sulle, Edward Lekaita and Fred Nelson
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RESEARCH SUMMARY



Introduction



Wildlife Management Areas (WMAs) are the mechanism established for implementing community wildlife management in Tanzania. WMAs consist of portions of village land set aside for purposes of wildlife conservation and the development of wildlife-based enterprises such as tourism and tourist hunting. In order to establish WMAs, villages must develop land use plans and by-laws, as well as establish a community-based organization (CBO) that is granted user rights to wildlife by the Wildlife Division of the Ministry of Natural Resources and Tourism (MNRT).¹

WMAs were first formally adopted in Tanzania by the 1998 Wildlife Policy (revised 2007). This Policy recognized that for the future of wildlife in Tanzania it is essential that wildlife generate economic benefits to the rural communities who live alongside wildlife, and for wildlife to be a competitive economic form of land use at the local scale. WMAs were first legally established through the WMA Regulations of 2002 (revised 2005) and are now established in the Wildlife Conservation Act of 2009.

WMAs have thus played a central role in Tanzania's wildlife management, policy and law for more than a decade. Despite such experience, it remains unclear how WMAs are fulfilling their objectives related to rural economic development, enterprise development and wildlife conservation. Many WMAs have been relatively slow to develop, and a number of reviews and independent research during the past five years, since the first WMAs were gazetted in 2006, have detailed a range of institutional and management challenges facing WMAs.² Today, it is critical to re-assess the performance of WMAs in relation to government policy objectives of promoting economic growth, rural development, private investment and sustainable management of natural resources.

This summary outlines the findings of two studies recently carried out by TNRF on the current status and performance of three WMAs in northern Tanzania, in Arusha and Manyara Regions.³ It provides key information and data about the performance of these WMAs and discusses critical management issues and challenges, concluding with recommendations for improving the design and performance of WMAs. These studies and this summary are an attempt to provide updated information to the public and stakeholders in wildlife management in Tanzania, as little publicly available analysis of WMAs exists since several reviews were carried out in 2006-2007. The underlying objective is to contribute to information sharing and discussion of the best strategies for strengthening WMAs as a way to link rural development, investment and wildlife conservation.

1 The CBO is thus the management authority (so-called 'Authorized Association') in the WMA.

2 Nelson et al., 2006; IRA, 2007; Igoe and Croucher, 2007; Benjaminsen and Svarstad, 2010.

3 Full reports of these studies are forthcoming as: Community-based Conservation in the Tarangire-Manyara Corridor: An Appraisal of Existing Models and Experiences; and Wildlife Management Areas and Pastoralist Livelihoods: An Assessment and Analysis from Northern Tanzania. This research was carried out from July-August 2011 and consisted of 85 formal interviews with local leaders and community members from the villages involved as well as local government officials, private investors, other researchers, NGOs and development partners. Many more people were also included through informal focus groups and as anonymous informants. The research was led by Emmanuel Sulle for TNRF, in cooperation with Ujamaa Community Resource Team and with support from Maliasili Initiatives.

Box 1: Structure and Management of WMAs

Basic Steps to Forming a WMA

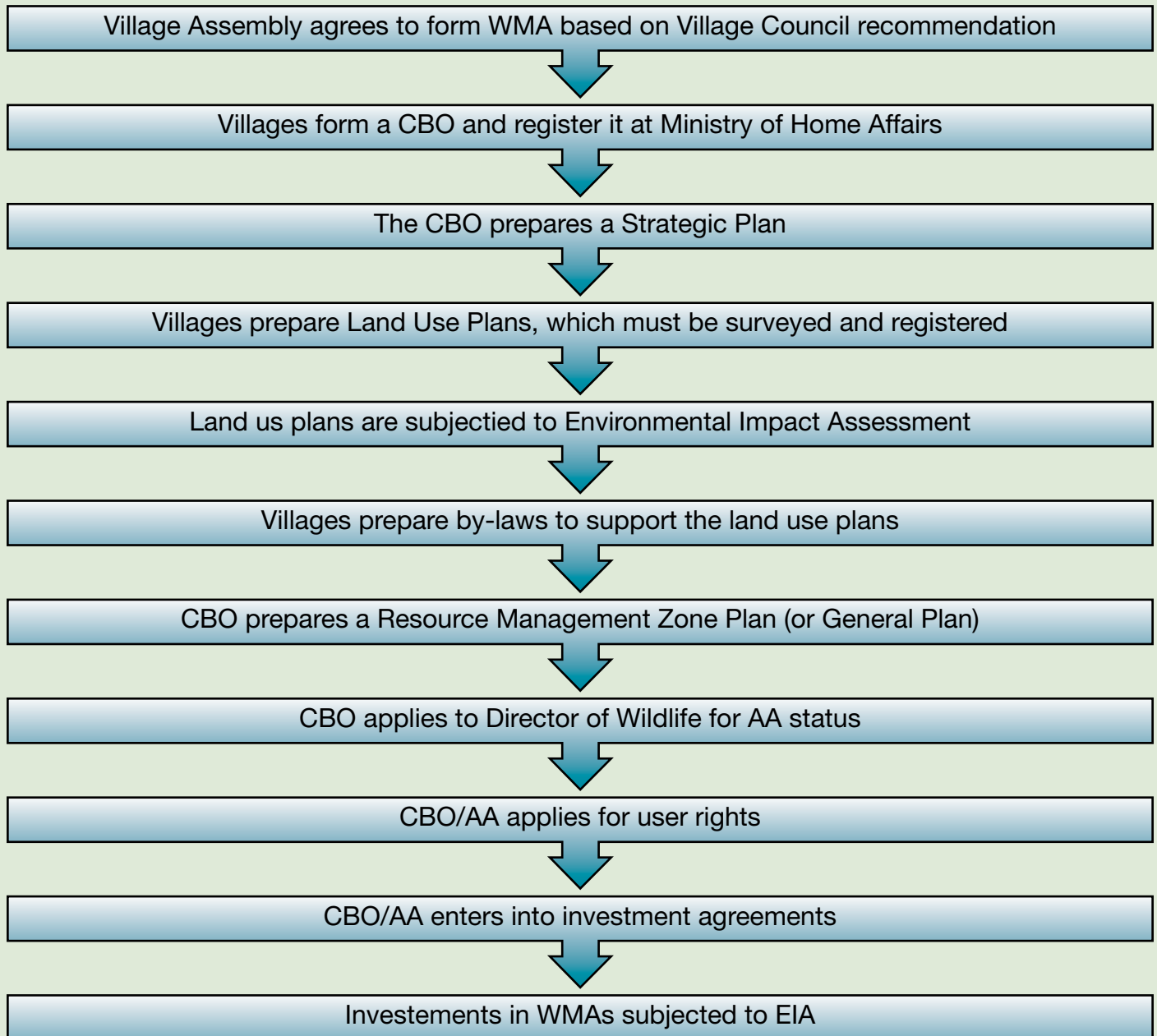


Figure 1: Basic steps to forming WMA⁴

The basic steps for creating a WMA are for the villages to agree to form the WMA, identify land to be managed for wildlife and other compatible land uses (such as forestry, fisheries, beekeeping and in pastoralist areas, livestock), and develop land use plans and by-laws for governing these land designations.

4 Adapted from Nelson, 2007

A key early step is for the member villages forming the WMA to establish an umbrella Community-based Organization (CBO), with its own governing constitution defining how leadership and management is elected and overseen, and to register that CBO under appropriate legislation (e.g. Societies Ordinance).

Once the CBO has been registered, village land use plans and by-laws have been developed, and an overall Resource Management Zone Plan or General Management Plan for the WMA has been developed and approved, the CBO can apply for user rights to wildlife from the Ministry of Natural Resources and Tourism. If the Ministry approves the application, the CBO becomes an 'Authorized Association' (AA) for purposes of managing and utilizing wildlife in the WMA. The AA is the key management body in all WMAs and is responsible for overseeing all investment activities within the WMA as well as conservation efforts. Investors sign contracts with the AA, who then must report to the WMA board of trustees, which is formed by villagers from member villages.

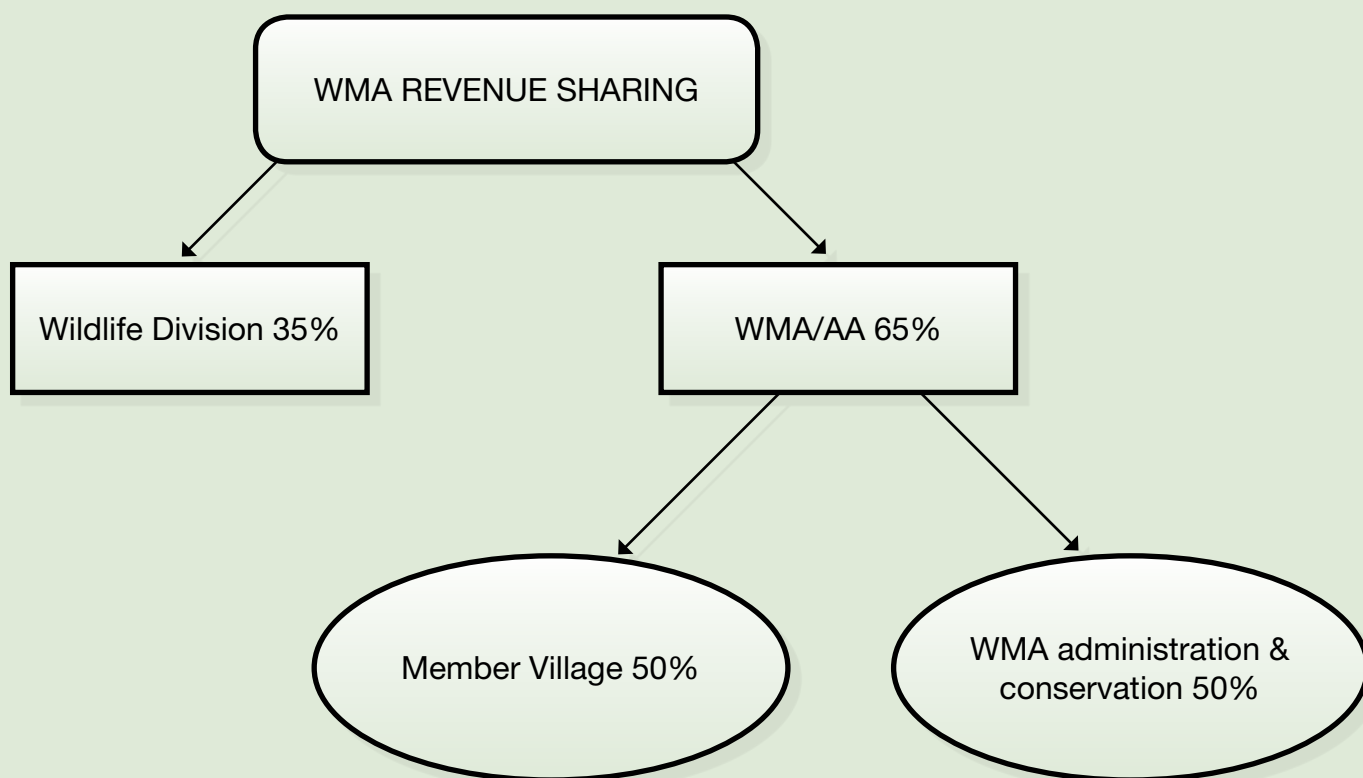


Figure 2: Overview of WMA revenue sharing breakdown

WMA Case Studies from Northern Tanzania

The three WMAs discussed here are the following:

- Burunge WMA, Babati District, Manyara Region
- Enduimet WMA, Longido District, Arusha Region
- Makame WMA, Kiteto District, Manyara Region

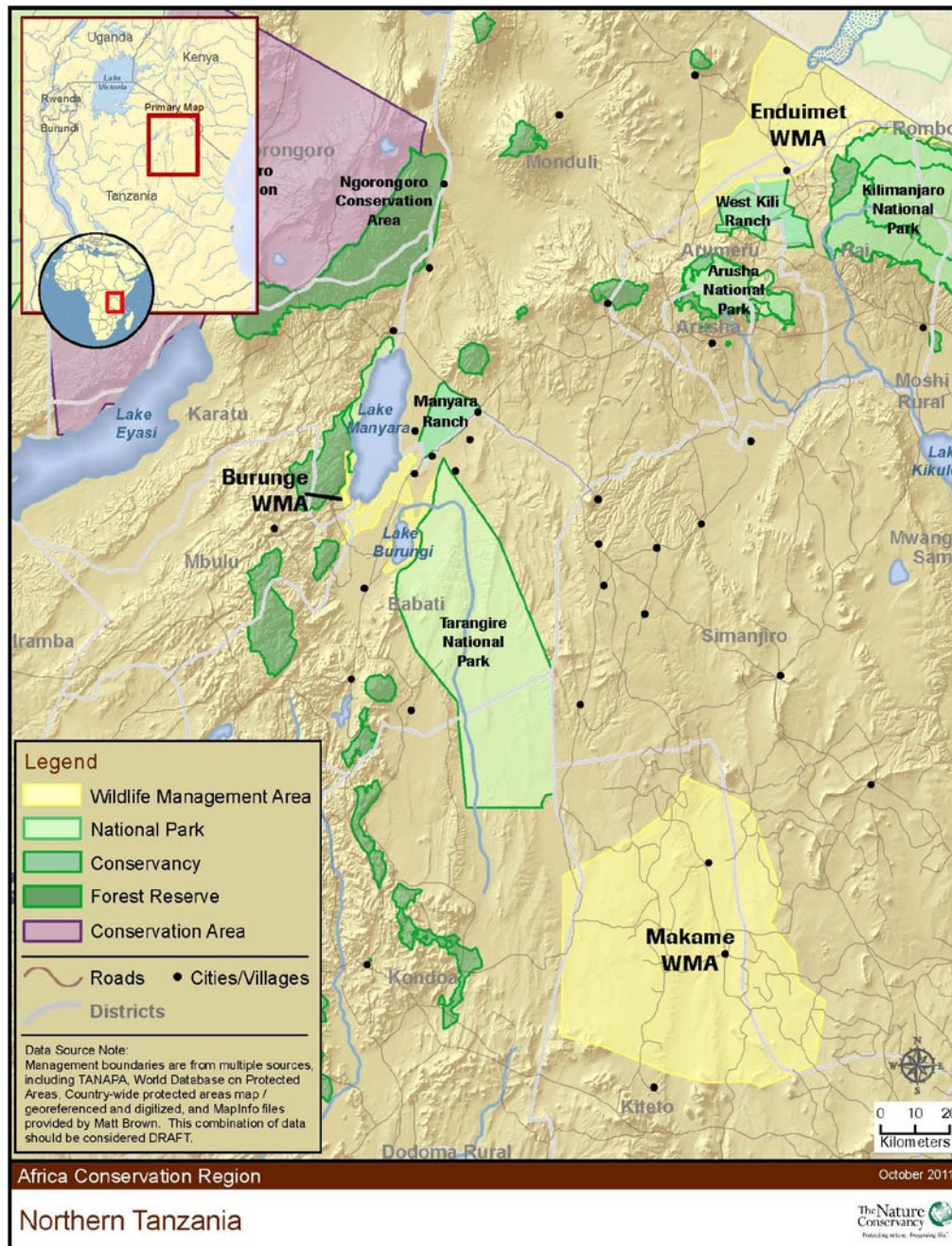


Figure 3: Map of WMA's, courtesy of The Nature Conservancy

All three of these WMAs are found in northern Tanzania's characteristic savannah landscapes. The communities in these areas are predominantly pastoralist or agro-pastoralist. All three WMAs were among the 16 official 'pilot' WMAs designated during the launching of the WMA program in January 2003, shortly after the release of the first official WMA regulations in late 2002. Two of the WMAs, Burunge and Enduimet, have been gazetted for 4-5 years, and are therefore well-established. Makame WMA is yet to attain user rights and be gazetted. All three are located in important wildlife areas, where wildlife moves across large areas of government and community lands according to seasonal changes in vegetation and water availability, intermingling with people and livestock throughout the year.

1) Burunge WMA

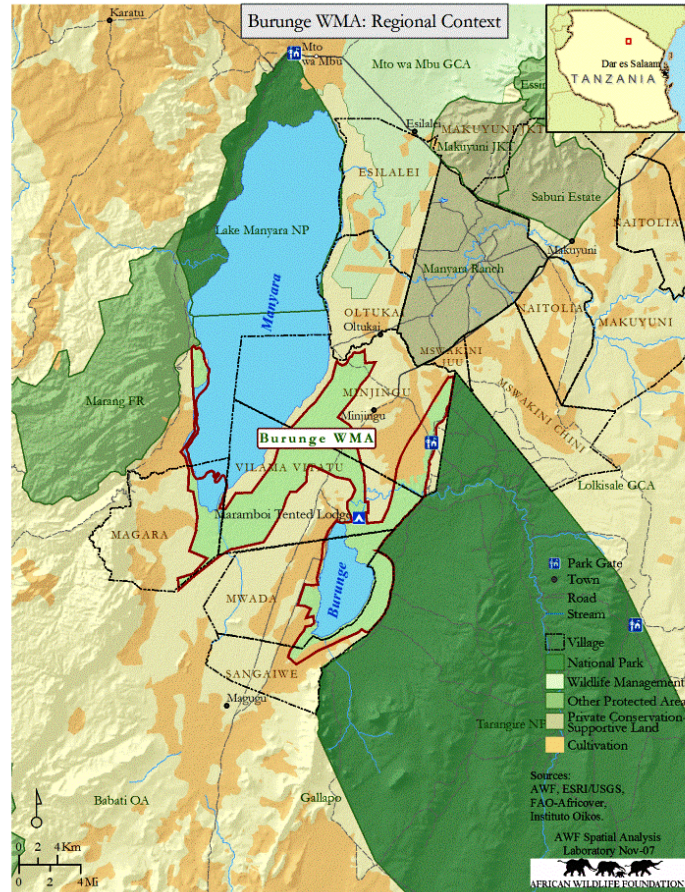


Figure 4 : Map of Burunge WMA, courtesy of African Wildlife Foundation

Burunge WMA was one of the first WMAs to be gazetted, receiving user rights from the Wildlife Division in 2006. The WMA comprises 10 member villages, all of which lie between Tarangire National Park to the south and east, and Lake Manyara to the north (Figure 4). The WMA is located in an important migratory corridor between Tarangire and Lake Manyara, particularly for species such as elephant, buffalo, zebra and wildebeest, which regularly move between the two areas. The main Arusha-Dodoma trunk road cuts through the member villages.



Due to its positioning along this road and between two of the main National Parks in Tanzania's northern tourism circuit, Burunge WMA has among the greatest commercial potential for tourism of any existing WMAs in Tanzania. Tourism is already at an advanced stage of development in this WMA, with a total of four lodges or permanent tented camps, which generate considerable earnings. Revenue from tourism has steadily increased since the WMA was established and reached over 227 million Tshs in 2009, of which nearly 114 million was returned to the member villages, resulting in a "dividend" from the WMA of around 11 million per village.

Women's craft center in Burunge, photo by Emmanuel Sulle

Year	Revenue	Expenditure			
		Office/ Conservation	Amount allocated to villages	No. of villages	Share per village
2006/07	37,496,988	8,296,411	18,748,494	9	2,083,166
2007/08	75,256,890	24,243,022.50	37,628,445	8	4,703,555
2008/09	64,595,376	34,211,010	34,297,688	9	3,588,632
2009/10	227,618,814	101,338,183	113,809,407	10	11,380,940

Table 1: Burunge WMA: Revenue and expenditure in Burunge WMA, 2006-2010.⁵ All figures in Tshs.

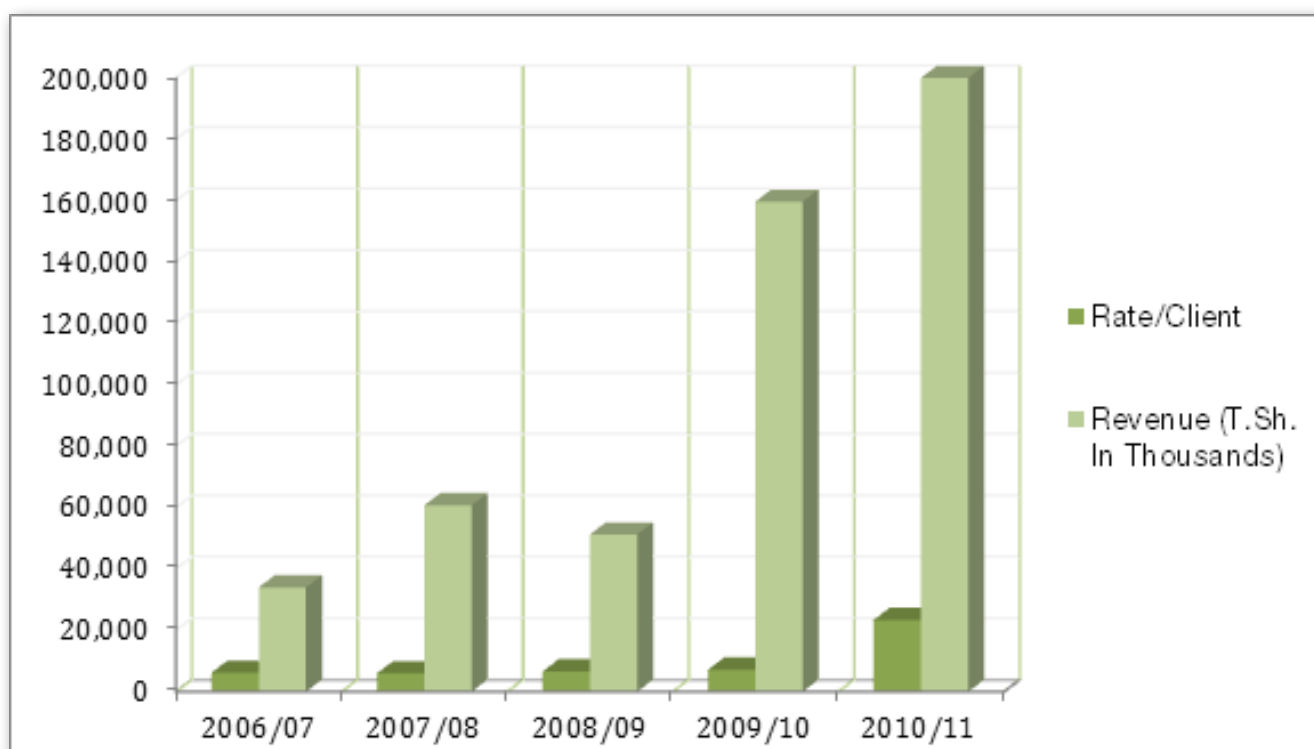


Figure 5: Revenue (in Tshs) to Burunge WMA from Maramboi and Burunge Tented Lodges. Revenue is paid at a fixed rate per tourist per bed night.

In addition to generating revenue, tourism development provides some local employment and opportunities to sell local goods, such as from four women's groups that produce and sell handicrafts. All revenue passed from the AA to the villages goes through a standard Village Council allocation and Village Assembly approval process to then be used to invest in social services, with most investments allocated for education, water and other services. Expenditure by the WMA itself includes employment of 40 Village Game Scouts who carry out anti-poaching work.

JUMUIYA YA HIFADHI YA WANYAMAPORI BURUNGE
 MAPATO NA MATUMIZI KUANZIA KIPINDI CHA MWAKA
 2006—2010

MWAKA	MAPATO	MATUMIZI	MGAO 50%	IBADHYA VIJIZI	MGAO KWA KILA KIJIZI
2006/2007	3749698800	8296411-00	18,748,494-00	9	2083,166-00
2007/2008	75256890-00	24,243,022-50	37628,445-00	8	4,703,555-00
2008/2009	64595376-00	34,211,010-25	32,297,688-00	9	3,588,632-00
2009/2010	227618815-45	10,133,8183-00	11,380,9407-00	10	1,380,940-00
2010/2011					

Figure 6: A chart showing revenue generated and shared among the villages forming Burunge WMA. Picture was taken in July 2011 by researcher, Emmanuel Sulle

Key Challenges

Although Burunge WMA has made a great deal of progress in terms of generating increased revenue from tourism during the past several years, a number of significant challenges face the WMA.

Tourism revenues are considerable, but they are primarily from two tourism developments. For differing reasons, the other two tourism developments located in the WMA are not yet paying the WMA. One of those, the Chemchem Lodge, has been the subject of a dispute and a court case pitting pastoralist residents (the Barabaig minority group⁶) in the WMA against the investor. It is a complicated conflict, whereby the land allocated to the investor is prime grazing land and not used as farming land. Because pastoral land use is favored by a minority sub-group within this community, the village leaders authorized this land to be used by the investor without obtaining the support of the pastoralist residents in the community. Therefore, the pastoralist residents argue that the lodge is attempting to evict them from their land and have taken legal action to maintain their land rights, access and use. But, the lodge has been authorized by the WMA. Thus the conflict is really between the AA/WMA, the villages and the pastoralist members of the community.

Another tourism property, Tarangire River Camp, pays two of the WMA member villages directly, Kakoi and Vilima Vitatu, as this was an arrangement made before the establishment of the WMA. Tarangire River Camp does not pay the WMA (i.e. the AA) itself. This is contrary to the provision of WMA regulations that all commercial investments operating in a WMA must have an investment agreement with the AA.⁷

Similarly, the hunting operator holding the Burunge hunting block has continued operating until

6 The Barabaig is a minority group within the community, which is mainly a mixture of Wambugwe, Wagogo, Wairaqw, Wanyaturuand Warangi - mainly agro-pastoralists.

7 United Republic of Tanzania, 2005

present, and paying only a portion of fees to Babati District Council, with no formal or contractual relationship with the AA. However, this arrangement may end with the forthcoming expiration of all hunting block leases at the end of 2012 because Burunge is not listed as a hunting block lease being offered for bids for the 2013-2018 period (see Box 3).

Perhaps the greatest challenge in Burunge WMA is that the member villages remain saddled with major internal conflicts, as has been the case since this WMA was established in 2006.⁸ The most significant conflict is that Minjingu village, officially listed as a participating village of the WMA, has never actually recognized the WMA. Instead, Minjingu alleges that it never joined the WMA and that minutes showing its agreement to join the WMA were fraudulent. As a result Minjingu has not received any revenue from the WMA, and, consequently, attitudes on the part of the community members towards the WMA are quite negative. The community tends to view the WMA as just another extension of National Park land under the government's control, and that the WMA will limit the amount of revenue they can generate from tourism (prior to the WMA, Minjingu had direct contracts with tour operators, profiting greatly from these arrangements). This attitude is exacerbated by recurrent threats from Babati district officials that if the village withdraws from the WMA, the land will be designated a Game Controlled Area under the Wildlife Conservation Act of 2009 and become off-limits to local use and residence anyway (see Box 2).

Another member village, Manyara Village, has been punished by the AA for its failure to remove its villagers who occupied the designated WMA area in order to farm. Since 2009, the village has lost a total of TZS 13 million in revenue withheld by the AA, revenue that is supposed to be distributed equally to WMA member villages on an annual basis.⁹ Although the issue of the WMA land invasion in Manyara has been submitted to the District officials for administrative and legal actions, it is yet to be resolved and remains a threat to the sustainability of the WMA as other member villages engaged in farming activities and facing economic pressures may follow suit.

This illustrates the rather tenuous land use economics upon which the success or failure of this WMA rests. Although the WMA member villages received more than 11 million Tshs each in 2010, this probably does not come close to matching the opportunity costs born by the communities by agreeing not to practice cultivation in the land set aside by the WMA. Considerably greater sums would be needed for wildlife and tourism to effectively compete with agriculture and provide real incentives for the community members to give up their desire (and need) to farm in the WMA. This highlights the problematic nature of the current situation. Investments in the WMA are heavily taxed by the government, with 35% of all revenue going to the Wildlife Division (in addition to other forms of tax such as VAT and corporate tax which the Tanzania Revenue Authority collects from these tourism enterprises). Further, the AA's failure to enforce revenue collection from some of the existing investments in the WMA results in a loss of annual revenue for the WMA as a whole.

A final issue, which underlies some of the existing challenges facing this WMA, is the relatively limited management capacity of the AA. This AA has not employed skilled management in areas such as financial oversight and business development. The Game Scouts are poorly equipped, with no vehicle or firearms. No information or data on wildlife numbers or poaching incidents is being collected. The AA plays little role in enforcing land use regulations, which leads to concerns on the part of tourism investors that the WMA is not being effectively managed. Ultimately, greater investment in capacity-building is a critical priority for the future of this WMA.

8 Lgoe and Croucher, 2007, provide details on the roots of these conflicts.

9 Interview with Secretary of Burunge WMA.

Box 2: Game Controlled Areas

Game Controlled Areas (GCAs) are one of the categories of wildlife protected areas in Tanzania. Before the 2009 Wildlife Conservation Act, GCAs allowed human settlement and all forms of land use in GCAs, while only prohibiting unlicensed use of wildlife. But, the 2009 Act changed this by prohibiting all livestock grazing and cultivation in GCAs. The Act also required the Ministry to ensure that there is no overlap between GCAs and village lands within one year of the Act coming into force. The Act has been in force for more than one year now, but it is not known if any action has been taken to resolve the extensive overlap of GCAs and village lands.

When WMAs are formed, GCAs must be degazetted to avoid the conflict between GCAs (reserved land according to the Land Act) and village land, since WMAs may only be on village land¹⁰.

Box 3: Leasing hunting concessions, 2013-2018

About 35% of Tanzania's land area is used as tourist hunting concessions, and of this area about half of all concessions are located on village lands where local communities reside. Hunting concessions ('blocks') are leased by the Wildlife Division through five year lease agreements with private hunting companies. The leases expire at the end of 2012 and the Ministry of Natural Resources and Tourism has invited bids for the concessions for 2013-2018.¹¹

¹⁰ TNRF and Policy Forum, 2010

¹¹ This is according to the invitation for bids issued by the Ministry of Natural Resources and Tourism earlier this year: http://www.mnrt.go.tz/index.php?option=com_content&view=article&id=178:applications-for-tourist-hunting-blocks-&catid=39:news-and-announcements

2) Enduimet WMA

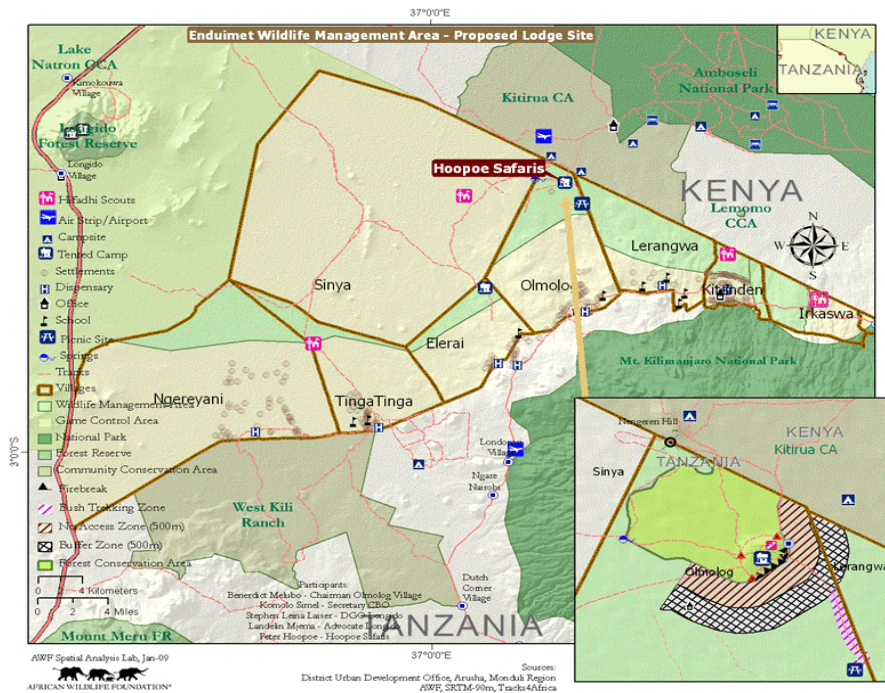


Figure 7: Map of Enduimet WMA, courtesy of African Wildlife Foundation

Enduimet WMA is situated in Longido District, comprising nine villages in Enduimet and Tinga Tinga Wards. The WMA was gazetted and granted user rights in 2007, and at that time consisted of only eight villages. But in 2009, after initially refusing to join the WMA due to a range of concerns, Sinya village finally joined.¹²



Tourists in a cultural boma in Tinga Tinga, photo by Emmanuel Sulle

The WMA lies to the west of Kilimanjaro National Park, and includes an elephant corridor between Amboseli National Park in Kenya and Mount Kilimanjaro, which is the last remaining corridor between the mountain and surrounding lowlands. The WMA also contains extensive habitat used for dispersing wildlife from Amboseli during the rainy seasons.

The member villages of this WMA are predominantly Maasai pastoralists and agro-pastoralists. Extensive farming is practiced in Enduimet Ward on the lower slopes of Kilimanjaro, and exclusively pastoralist land use is found in the arid lowlands around Sinya and Tinga Tinga.

As in Burunge WMA, Enduimet lies in an area of high potential for tourism. It is adjacent to Mount Kilimanjaro, one of Tanzania's most popular tourism sites, and the Namanga border crossing with Kenya, which is one of the main thoroughfares for tourists. Arusha is only 2-3 hours by road. Wildlife in the area is relatively abundant and diverse, including the famous Amboseli elephants often seen around Sinya and in other villages in the WMA, as well as rarer species such as gerenuk and lesser kudu. Contractual



agreements between the villages and tourism companies have been developed since the late 1990s, thus tourism businesses are well established in the area (although past conflicts between tourism and tourist hunting have restricted those developments).¹³

Since its establishment in 2007, the WMA has been able to generate revenue from tourism, which has mainly come from a permanent tented camp located in Elerai village. Another lodge, which started construction prior to Sinya joining the WMA, has recently started operating in Sinya, but it has not yet come to a formal agreement with the WMA. Total revenue from tourism reached over 48 million Tshs in 2009, although this dropped to 36 million Tshs in 2010 (Table 3).

Year	Revenue (Tshs)	Expenditure (Tshs)			
		VGS/ conservation & Office	Amount allocated to villages	No. of villages	Share per village
2007	13,328,074	12,600,000 728,074	-	8	-
2008	22,720,050	11,360,025	11,360,025	8	140,003.125
2009	48,647,898	24,323,950	24,323,948	8	3,040,493.5
2010	36,000,000	18,000,000	18,000,000	9	2,000,000

Table 2: Income from photographic and hunting tourism in Enduimet WMA, 2007-2010¹⁴

One of the significant aspects of Enduimet WMA is the full integration of pastoralist livestock grazing with wildlife in the WMA itself. Within the area set aside for the WMA, villagers are still allowed to graze their livestock according to traditional pastoralist land management practices.

¹³ See Nelson, 2004.

¹⁴ Enduimet WMA implementation report 2003-2010

This clarification and stipulation of WMA operations and co-existence with livestock were key to the WMA's acceptance by the communities, which are about 90% pastoralists. Without such provisions the WMA could never have advanced in Enduimet.

Enduimet WMA has developed its management capacity greater than some other WMAs, such as Burunge. Presently there are officials employed at the AA office in Enduimet, including a university graduate serving as the Administrative Secretary for the WMA, with plans to employ a manager in the near future. The AA carried out an election of its leadership in 2010, and some members of the AA board were changed at this election.

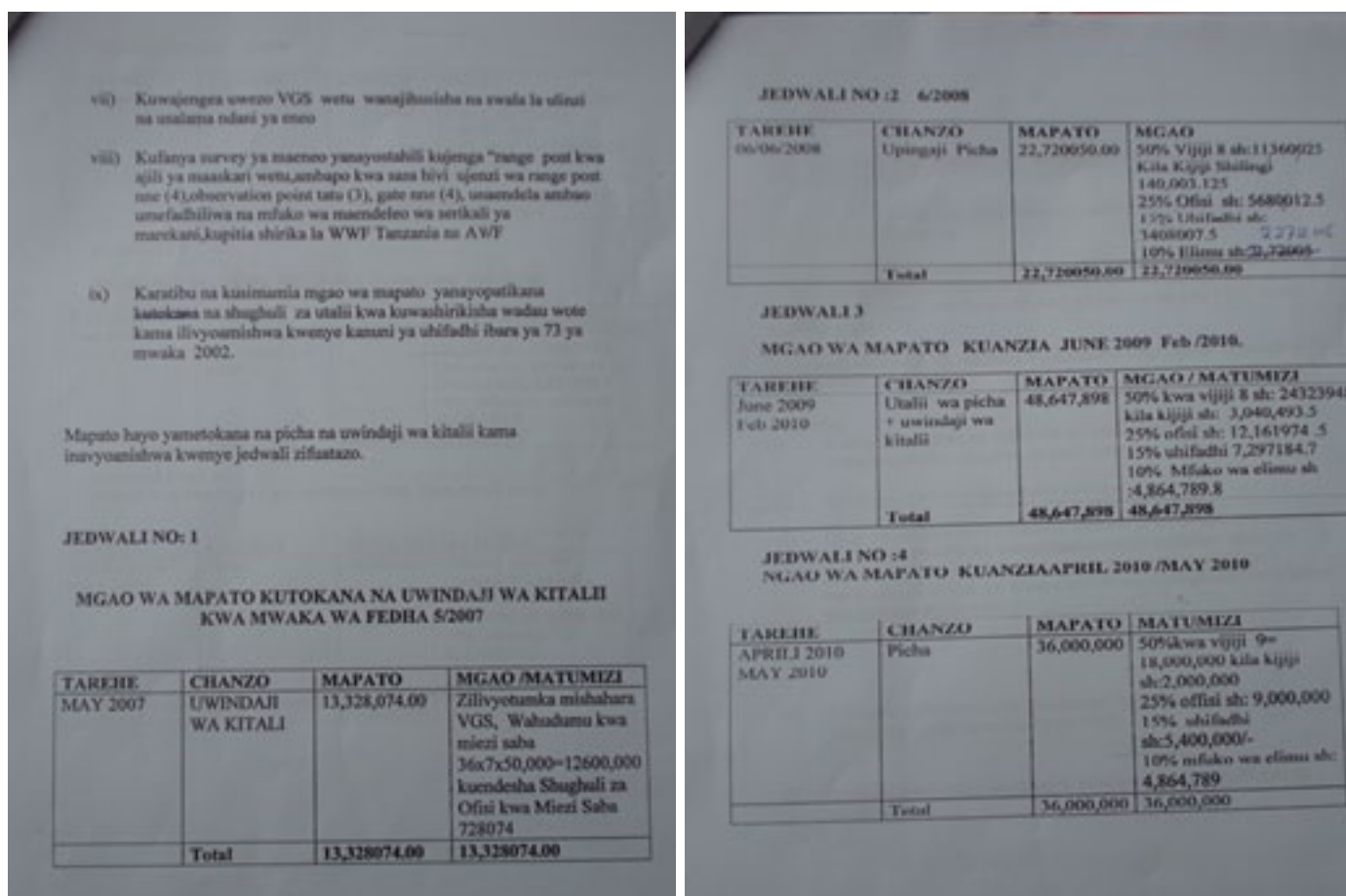


Figure 8: Revenue earned by Enduimet WMA over the past four years. Picture taken by researcher, Emmanuel Sulle in July 2011.

Key Challenges

Although Enduimet WMA has generated some revenue through its tourism investments, the WMA's overall economic and financial performance has not met expectations. For example, the 48.6 million Tshs earned in 2009 only equates to a per-village dividend of roughly 2.7 million Tshs.¹⁵ It is important to point out that some villages, such as Sinya and Elerai, through direct village-operator contracts, had at times earned upwards of 30 million Tshs annually before the establishment of the WMA. Olmolog village also earned roughly 10 million Tshs annually from its own tourism venture with Hoopoe Tours. All of these villages, which tend to host the main wildlife populations and key habitats, have received considerably less earnings after the establishment of the WMA. This has led some local leaders and community members to express disappointment at the WMA's performance.¹⁶

15 This is after the 35% is given to the Wildlife Division and expenses are made to AA management.

16 Interview with Elerai Village Chairman

Reasons for reductions in benefits include the following:

- Some member villages in the WMA, such as Sinya and Olmolog, have abundant wildlife, while others, such as very small and highly agricultural Kamwanga and Irkaswa villages, have very little wildlife or tourism potential. Because revenue is shared equally amongst the WMA villages, those villages that were doing better from individual tourism ventures before the WMA was established are now earning much less. This has the effect of reducing the incentives to tolerate wildlife in those communities where most wildlife resides.
- Some enterprises, such as the lodge recently developed in Sinya, are not yet paying the WMA and are reportedly resisting paying fees to the AA.¹⁷
- One major investor in the WMA, Hoopoe Tours, withdrew from operations and plans to construct a permanent lodge after several years of negotiation over shifting its contract directly with Olmolog village to instead contracting with the AA. Ultimately the process proved too cumbersome, fraught with tensions between village interests and the overall WMA interests, and added costs imposed by the revenue-sharing arrangements and fee schedule produced by the Wildlife Division in 2007-2008.¹⁸

The issue of limited or reduced benefits to community members in the WMA is compounded by the problem of human-wildlife conflict in Enduimet. Conflicts between residents and wild animals, particularly elephants, are prevalent, with a recent report recording that 73.8% of the respondents¹⁹ were concerned with dangerous animals destroying their crops, while 17.9% of respondents reported animals attacks.²⁰ In Lerangwa village, two people were killed by elephants during 2010-2011, while in adjacent Kitendeni village elephants have destroyed water piping infrastructure. There are few measures being implemented or developed to mitigate these conflicts, potentially undermining the intent of the WMA to encourage local support for conservation.

17 Interview with AA Executive Secretary and AA Chairman.

18 This refers to the Non-consumptive Tourism Regulations, which prescribes the fees to be paid to WMAs for all tourism activities.

19 124 people were interviewed.

20 Health and Development International Consultants (HDIC), 2010

3) Makame WMA

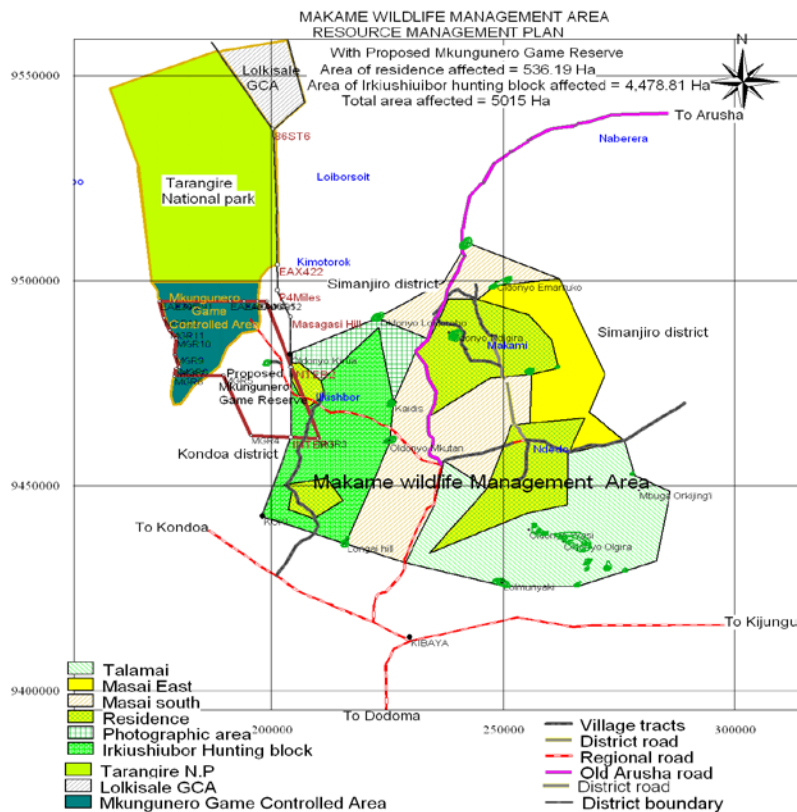


Figure 9: Map of Makame Proposed Wildlife Management Area Resource Zone Management Plan

Makame WMA comprises five villages in northern Kiteto District, in the Maasai Steppe. The area is southeast of Tarangire National Park and contains both resident and migratory wildlife, including up to 500 elephants that migrate into Tarangire during droughts. The WMA covers a relatively vast area of 379,362 hectares, and is nearly a third larger than Tarangire National Park. The residents of the area are nearly all Maasai pastoralists, with some non-pastoralists moving north into the area from Kibaya and Kondoa. This is leading to an expanse of agriculture, increasing demand for land acquisition, and is a source of conflict between different groups of people in this region and can lead to violence revolving around land rights and land use. The WMA potentially has a key role to play in protecting this area from agricultural encroachment and degradation, which is in the interests of both pastoralist residents and wildlife stakeholders. Indeed, our research records that the communities have embraced the WMA proposal as a way to protect their lands from outsiders looking to acquire land and convert it to farming.

Unlike the other WMAs discussed here, Makame has not yet been gazetted. To date Makame WMA has developed its written constitution and formed a CBO (INDEMA Society) and it has completed its Resource Zone Management Plan (see Figure 9). The WMA office is in its final stages of construction and there are number of Village Game Scouts who have attended workshops and exposure trips. All the villages forming the WMA have had their land surveyed and have completed land use plans, except the newly established Ngabololo Village, which was formerly a sub-village of Ndedo Village.

The member villages of Makame WMA currently do not receive any significant revenues from tourism or wildlife enterprises; there are several tourist hunting blocks in the area that continue to operate (and all of which have been posted by the Ministry of Natural Resources and Tourism for bids for the 2013-2018 leasing period), but they do not have any formal contractual relations with the villages or make any set payments to the villages where they operate.

Key Challenges

The main challenge and cause for incomplete WMA gazettement—it has been nearly nine years after Makame was included in the list of pilot WMAs—is a land conflict between one of the member villages, Ilkiushoibor village, and the Mkungunero Game Reserve (MGR). MGR was formerly a Game Controlled Area but in 1996 its status was changed without any consultation with adjacent communities. Its boundaries were extended, as shown in Figure 9, enclosing approximately 5,000 hectares of Ilkiushoibor and neighboring Kimotorok village in Simanjiro District to the north. This created a long-standing land conflict, as the new boundaries would displace many residents of Ilkiushoibor and exclude them from critical water sources and pasture areas. This meant that the boundaries of the village were contested, and also created resentment by the community towards wildlife authorities responsible for the changed boundaries, and created a significant barrier to WMA development.

A second source of internal conflict has been dissension within another member village, Makame, about the WMA process. Concerns have been expressed about perceived loss of land designated for the WMA, and the lack of transparency or open process around the initial election of leaders to represent the village on the INDEMA Society (the CBO/AA).

A third challenge noted in this WMA has been the lack of a multiple-sector approach (eg. land, livestock, forestry, wildlife, community development, etc.), which is fundamentally needed as the WMA is entirely comprised by integrated livestock and wildlife land uses and the resident people depend completely on the WMA area for their livelihoods. Close integration between livestock development and the WMA development in the area is needed for the WMA to be viable and accepted, as in other pastoralist areas, but this does not appear to have occurred. For example, the Kiteto District livestock officer has not been involved in the process and is not supportive of the WMA.

The result of this long delay in implementing the WMA has been that divisions have been allowed to fester and externally driven land use change has increased. In the case of Ngabolo village, local people already feel like it is too late for the WMA to protect land, as large areas previously designated for the WMA have already been cleared for agriculture.

More positively, the conflict between MGR and Ilkiushoibor has, according to district officials, been recently resolved due to the Wildlife Division agreeing that MGR boundaries will not take Ilkiushoibor land but will adhere to the original 1961 Game Controlled Area boundaries. But it will be important to see this actually play out and be implemented transparently, so that Ilkiushoibor can be assured they will not be forced off their land.



Conclusions – Key Challenges

Enterprise Development

In the five years since the first WMAs were gazetted in 2006, the number of WMAs has continued to spread, more land has been set aside for wildlife on village lands and in some areas WMAs have been the site of important new tourism enterprises. Burunge WMA is in all likelihood among the most high-potential WMAs for wildlife enterprises and income generation, and has a number of tourism properties resulting in a fairly high and growing flow of revenues.

Despite this potential, Burunge's ability to generate revenue remains constrained by a number of key factors, particularly the AA's inability to develop or enforce investment agreements with all the investors operating in the WMA. Although total revenues are relatively high in this WMA, they will ultimately need to grow considerably if they are to match the opportunity costs the member villages are bearing by adopting wildlife land uses as opposed to agriculture.

In Enduimet WMA, revenues to the WMA are substantial but enterprise development has a more checkered record, with one major investor pulling out after the WMA was established. For a number of member villages, existing revenues are much lower than they were under previous arrangements where Village Councils received payments directly from tourism companies. In such instances, the WMA effectively functions as a highly punitive taxation regime, redistributing revenues generated by wildlife on village lands to other locales and layers of government, including neighboring villages, District Councils, and the Wildlife Division. As such, WMA performance in practice is not a net benefit but a net cost to some communities, particularly when the costs of living alongside growing wildlife populations are taken into account. Such circumstances clearly threaten the sustainability of the WMA undertaking and need to be addressed creatively.

Recommendations for enterprise development that emerge from these findings include the following priorities:

- Levels of government taxation on WMA earnings should be reviewed and reduced; at present the WMA forfeits 35% of revenue directly to the Wildlife Division. After splitting remaining revenues 50-50 between the AA and the member villages, the village earnings may be insufficient to motivate habitat protections and deter other forms of land use.
- Authorities at national and district level, along with WMA facilitators, should endeavor to ensure that WMA regulations are being adhered to with respect to relationships between investors and the AA, such that investment agreements exist and are enforced.
- With the expiration of existing hunting concessions at the end of 2012, it is greatly hoped that at long last communities that have established WMAs will be in position to earn revenue directly from tourist hunting if they wish and if hunting is a profitable way to use wildlife. It is noted favorably that the hunting concessions situated in Burunge and Enduimet WMAs (Burunge and Longido GCAs, respectively) are not among the concessions listed for bids by the Ministry of Natural Resources and Tourism, which lends hope that the long-standing conflict of WMAs being saddled with hunting concessions over which they have no control and which do not pay them direct revenue, will finally be resolved.

Conflict Resolution

WMAs invariably involve a wide range of local, district, regional and even national stakeholders from both public and private spheres, and involve a range of trade-offs in land use and economic options. As such, WMAs are often subject to conflict over land and resource use decisions, enforcement and governance. This will undoubtedly continue to be the case, and the effectiveness of WMAs will depend on how the different interest groups and stakeholders manage and resolve conflicts that emerge.

All three WMAs reviewed here have been subject to major conflicts that have delayed or undermined

their creation and performance. Perhaps the greatest challenge facing Burunge WMA is that the long-standing conflict with Minjingu village is yet to be resolved and, in fact, appears to have hardened into a position of implacable opposition to the WMA. In Enduimet, Sinya village refused to join for several years, until coercive pressure from local elected leaders and district officials eventually caused the village to relent and agree to join the WMA. Nevertheless, many community members in Sinya remain dubious of the merits of the WMA undertaking and, as a result, local support for the WMA's aims is somewhat limited. This is exacerbated by the fact that some years back, from around 2002 to 2004, Sinya itself earned more from tourism than the entire WMA has earned until recently.

In Makame, the long-term conflict between Mkungunero Game Reserve and Ilkiushoibor village has delayed the WMA's formation for nearly a decade now. More hopefully, reports received from the district officials during this research indicate that pro-active efforts by the Wildlife Division recently may have solved this conflict by responding to legitimate local concerns about land loss to the Game Reserve. If this proves to be the case, this would be a positive example of conflict resolution for other officials and facilitators to emulate.

Recommendation:

Conflict resolution efforts need to take greater recognition of legitimate concerns that member villages have in relation to the equity and security of establishing WMAs. Land tenure and boundary conflicts impeding the development of WMAs should be resolved in a transparent and cross-sectoral manner with the participation of all key authorities.

Environmental Impact

Although it is possible to collect data (as has been done during this research) on the economic, or at least financial, impacts of the WMAs in different areas, there is virtually no data available on the ecological and environmental impacts of the WMAs. Specifically, there is no data readily available on wildlife numbers or trends in the WMAs, or poaching incidents or trends. This makes it impossible to evaluate this component of the performance of WMAs.

Recommendation:

Effective monitoring systems supplying data on wildlife population status and trends in WMAs should be developed and implemented. Community-based monitoring methodologies, such as Namibia's event-book monitoring system, are urgently needed to collect useful data on wildlife trends in WMAs and monitor overall performance.

Capacity-building

A key to the future of WMAs will be growing the capacity of the communities, and the management authority in the form of the AAs specifically. Five years after Burunge WMA was gazetted, and after several hundred million shillings in revenue have been earned, the WMA still has no professional management, poorly equipped Village Game Scouts and limited capacity to undertake basic management tasks. Enduimet, by contrast, has invested in more skilled management capacity, but still is in the early stages of development.

An earlier review of WMAs carried out by the Institute of Resource Assessment in 2007 stated, "Capacity building is the main issue emerging after the WMAs have attained an AA status and resource User Rights." But it is not clear from our discussions with community members and leadership in Burunge and Enduimet WMAs if these WMAs are receiving the kind of consistent

follow-up and support that they still urgently require. Instead, what is clear is that that major investments in new WMAs are being planned for areas adjacent to those existing WMAs (e.g. in Lolkisale adjacent to Tarangire, and in Lake Natron in Longido District). It is also evident that major investments are being made in infrastructure, including a visitor center for Burunge WMA being constructed on the main road near Tarangire. Infrastructure and marketing are undoubtedly important, but sustained investments in the management capacity of the AAs, and the wider communities, remains the paramount issue upon which WMAs will either succeed or devolve into conflict and mismanagement. More sustained capacity-building efforts need to be made using practical and creative strategies.

Recommendation:

Without considerable efforts made to increase the capacity of communities, AA's and even district authorities, WMAs will be at risk of under-performance and mismanagement. There should be ongoing initiatives aimed at capacity building within WMA communities, so that WMAs can be sustainable, effective mechanisms for wildlife conservation and community development.

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