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# Making Wildlife Management Areas Deliver for Conservation and Communities



## Northern Tanzania Rangelands Initiative

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### KEY POINTS

- Wildlife Management Areas (WMAs) have an important role to play in community development and wildlife conservation in Tanzania - it's critical we find solutions to make them effective for both people and wildlife.
- Currently, WMAs do not generate enough money to cover the costs required to manage them, or enough to strongly incentivize local conservation efforts.
- Payments made to the Wildlife Division need to be reviewed and reconsidered.
- WMAs need more support - from government and others - for management, wildlife protection, infrastructure development and promotion.

### SUMMARY

Wildlife Management Areas (WMAs) have the potential to benefit both people and wildlife in Tanzania. But are Tanzanian communities earning enough from WMAs to want to protect the wildlife that live on their land? This policy brief addresses this question by examining two WMAs in the Tarangire ecosystem and looking at their performance and revenue streams. This reveals that while communities are earning some income, the WMAs do not yet have enough funds to cover management and wildlife protection costs.

It highlights the importance of improving WMA revenue flows to make them financially viable and able to deliver more benefits to their members as well as improved conservation outcomes to government, tourism investors, and others.

### BACKGROUND

#### Communities and wildlife

Tanzania's wildlife is central to its economy, with the national tourism industry generating more than \$2 billion in total revenue annually. Wildlife is particularly important in northern Tanzania, which serves as the tourist launching pad to key destinations, such as Kilimanjaro, Serengeti, Lake Manyara, Tarangire and Ngorongoro Conservation Area.

Yet despite the importance of wildlife to the economy, poaching, population growth, and habitat loss, pose serious threats to wildlife. In the past five years, Tanzania has lost roughly 60% of its elephants and key migration routes and dispersal areas have been lost to agricultural expansion and land use changes.<sup>1</sup>

Wildlife Management Areas (WMAs), the legal mechanism for communities to manage and benefit from wildlife, could play a critical role in wildlife protection and, in turn, economic

development. WMAs were first piloted in Tanzania during the 1990s as a way to involve local communities in wildlife management and enable people to benefit from wildlife. Since then, WMAs have been mainstreamed across Tanzanian wildlife and poverty reduction policies and plans, and billions of shillings of government, donor, community and NGO investment have gone into supporting the development and growth of WMAs.

WMAs provide the potential linkage between local communities' livelihoods, tourism investment, and wildlife conservation in Tanzania. Strengthening the performance of WMAs is critical to conserving elephants and other key species, supporting the growth of the tourism industry, and channeling economic benefits from natural resources to rural communities.<sup>2</sup>

#### Revenue Generation and Management in WMAs

By setting aside village land for wildlife, and being granted formal user rights by

the government, Wildlife Management Areas provide a way for local communities to capture economic benefits from wildlife. These benefits – in the form of revenue, employment, sales of goods, and other activities connected with tourism or trophy hunting – provide the reason for communities to support conservation. To generate benefits, WMAs enter into joint ventures or concession agreements with tourism or trophy hunting companies. These contracts are negotiated by the Authorized Associations (AAs) that govern the WMAs, and are approved by the Ministry of Natural Resources and Tourism. The procedures governed by the current WMA regulations (2012) have investors paying the Wildlife Division directly, which then returns a set proportion of money to the WMAs.

The WMA Regulations (2012) govern the proportion of revenue that is returned to the WMAs and that which is retained by the government (see Table 1 for breakdown).

TYPE OF TOURISM	PERCENTAGE TO WMA
Photographic <sup>3</sup>	70%
Hunting	
• Block Fee	75%
• Game Fee	45%

Table 1: Proportion of revenue returned to WMAs from Wildlife Division

Based on the different percentage breakdowns, under current regulations, WMAs are entitled to roughly 60%-65% of the gross revenue from investment contracts in the WMAs.

The WMA regulations stipulate a further division of the WMA revenue, which gets split between the WMA itself, used by the AA for management purposes, and the WMA member villages. Essentially, the WMA member villages are legally entitled to 50% of the revenue paid to the WMA, which leaves the remaining 50% for use by the AA for managing the WMA, including all management, resource protection and governance functions.

## WHAT IT COSTS TO MANAGE A WMA

In Enduiment WMA, anti-poaching measures supported by Honeyguide and Big Life for just three years essentially eliminated what had become a serious elephant poaching problem. This success came at a cost though, of roughly \$250,000 annually, or about \$175 per km<sup>2</sup>. While precise figures will vary across different areas<sup>4</sup>, protecting wildlife, particularly species such as elephants, is costly and includes:

- Management, including finance and administrative costs (20% of expenditure)
- Paying for anti-poaching activities, such as village game scouts, vehicles, equipment and training (60% of expenditure)
- Governance costs, including meetings, transport and sitting allowances (20% of expenditure)

# The Performance and Viability of WMAs in Northern Tanzania

## RANDILEN WMA

Covering 312 km<sup>2</sup> across eight villages in Monduli District, Randilen WMA is home to 16,000 residents who are mostly pastoralist and agro-pastoralists. Randilen borders Tarangire National Park, and is a key dispersal and migratory corridor for roughly 1,000 elephants that live in the northern part of the park. This makes the WMA a critical habitat for northern Tanzania's largest elephant population, helping to attract tourists who pay more than \$4 million in park fees to Tarangire every year.<sup>5</sup>

Randilen is a fairly new WMA, receiving user rights in 2012. While it's location has high potential for tourism, it currently only receives significant revenue from two operators, including the Elewana Treetops Lodge.

### Payments: Are they enough?

In 2014/15 the WMA itself received \$106,202 after payment was made to the Wildlife Division. Of that, half (\$53,110) went to the AA to cover operational costs, and the other half was shared between the eight member villages, amounting to roughly \$6,640 per village.

Randilen WMA is not able to cover its management costs on its own. Currently it is able to cover only around 30% of what it actually needs to effectively manage and protect its area.

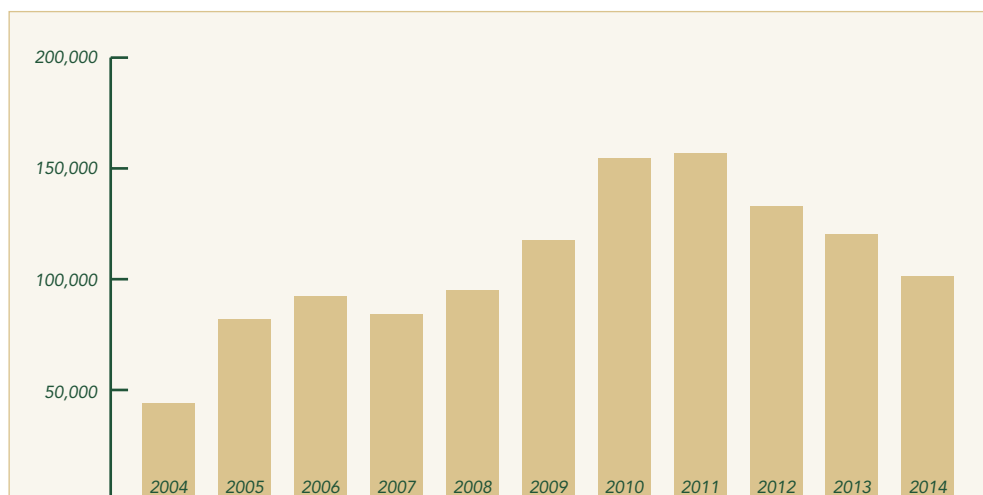


Figure 1: Payments from Elewana Treetops Lodge to Randilen WMA<sup>7</sup>

While payments from Elewana to Randilen have increased, after the Wildlife Division receives its share of the revenue, the amount is actually smaller than it was prior to the WMA.

Yet, research shows Randilen requires approximately \$176,000 to cover operational costs (anti-poaching, management etc.)<sup>6</sup>. This leaves a \$124,198 deficit from what the WMA earns compared to what it costs to manage it. In other words, Randilen can only cover 30% of its own operational costs, which are essential to ensure wildlife protection.

Total WMA tourism revenue	US\$163,420
WMA revenue share (65%)	US\$106,220
Govt. revenue share (35%)	US\$57,200
50% share for 8 villages	US\$53,110
Revenue per village	US\$6,640
Total WMA/AA revenue	US\$53,110
Total WMA/AA operating expenses	US\$176,655
WMA/AA Operating Deficit	US\$124,198 <sup>8</sup>

Table 3: Estimated annual revenue shares and uses for Randilen WMA 2014/15<sup>9</sup>

## Negative attitudes towards wildlife

These revenue figures have important implications for the viability of Randilen. A recent socio-economic baseline survey<sup>10</sup> revealed that community members bear significant costs from living alongside wildlife, such as from crop destruction. This leads to widely negative attitudes towards wildlife in Randilen:

- 83% of households had crop damage in the last 12 months
- 60% said crop damage from wildlife was increasing
- 58% of men and 74% of women dislike or strongly dislike wildlife
- 79% of respondents felt more losses than gains from wildlife

If communities are to help protect wildlife in the Tarangire ecosystem, then they need to see value in their efforts.

## MAKAME WMA

Makame WMA is also located in northern Tanzania, though with a different social and ecological context than Randilen. Makame is in Kiteto District and lies to the southeast of Tarangire National Park, covering 3,800 km<sup>2</sup>, which is about 45% larger than all of Tarangire National Park. The WMA includes the lands of five villages, all of which are predominantly pastoralists, and wildlife habitat and livestock grazing areas are fully integrated into this semi-arid landscape of savannah and thick bush.

Makame WMA covers a critical stretch of habitat for wildlife, as historically about 400-500 elephants lived for most of the year in the Makame area, moving into southernmost Tarangire National Park only during the dry season.

## Income and management costs

Due to distance from the main tourism circuit, Makame WMA depends mainly on trophy hunting contracts and revenue. Trophy hunting revenue increased sharply in 2014/15 after the Makame WMA was able to tender four hunting blocks, and signed two contracts with a hunting operator. In turn, Makame earned \$117,077 that year.

2011/2012 (Before WMA Hunting Blocks)	\$7,798
2014/15 (With WMA hunting blocks)	\$117,077

Table 3: Makame WMA hunting revenue increase after being able to lease out WMA hunting blocks.

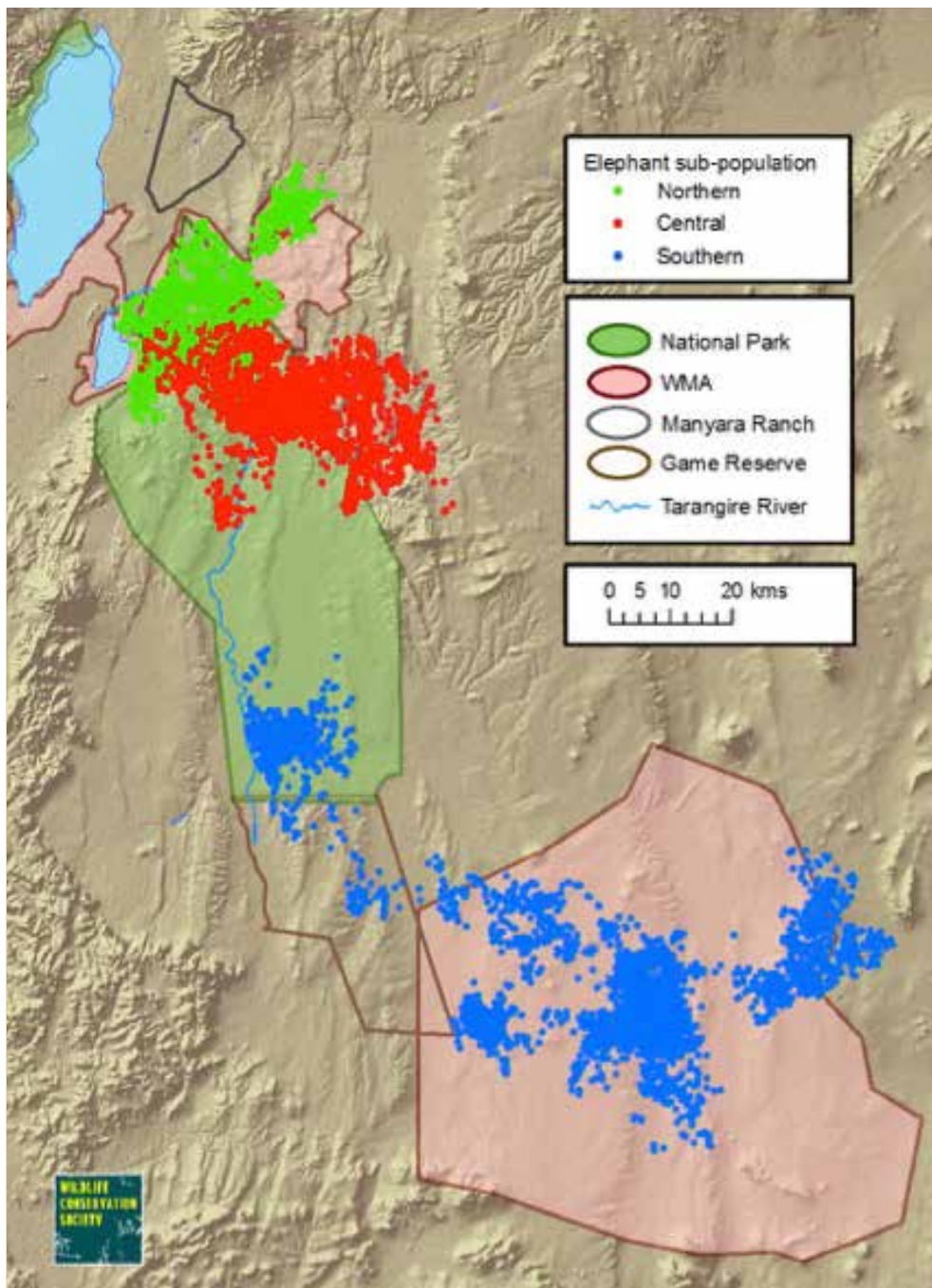


Figure 2: Map of elephant distribution inside and outside of Tarangire National Park (data from Oikos). The southern elephant population (blue) mostly resides in Makame WMA, moving into Tarangire only during drought periods.

As per the 2012 WMA regulations, WMAs retain 75% of each hunting block fee, thus the establishment of the WMA has resulted in an important new source of wildlife revenue for the communities. In 2014/15, the share of the five member villages' revenue was \$42,700, or roughly \$8,540 per village. At the same time, the WMA spent \$37,315 on operational expenses, including governance, administration, and village game scouts. Funds were also allocated to court cases fighting against encroachment by settlers trying to convert grazing lands to agriculture without the approval of the WMA or Village Councils. This expenditure has been critical to protecting the habitat and wildlife in the WMA from agricultural encroachment to the south.

Yet, like Randilen, income to cover operational expenses is not sufficient, and in Makame only covers an estimated 5% of what may be needed to protect elephants and other wildlife. Using a conservative figure of \$100/km<sup>2</sup>,<sup>11</sup> operational costs covering Makame's 3,790 km<sup>2</sup> would run at over \$379,000.

Actual Makame WMA Operating Expenditure (2015/16)	\$24,370.39
Required Makame WMA Operating Expenditure (Estimated) <sup>12</sup>	\$379,000

Table 4: Actual operating costs vs. an estimate of what is needed for effective wildlife management and protection in Makame WMA.

## PROTECTING WILDLIFE IN WMAS

The importance of ensuring adequate investment in WMAs is highlighted by evidence collected by the PIMA project and TAWIRI that recorded a high ratio of elephant carcasses to (few) live elephants in the Makame WMA in 2014.<sup>13</sup> This illustrates the importance of providing additional wildlife protection support to the WMA by government and other stakeholders, as well as measures to maximize revenue to the WMA.

# Making WMAs deliver for people and wildlife

WMAs in northern Tanzania are relatively successful in terms of wildlife conservation<sup>14</sup> and are considered more economically viable than those elsewhere in the country because of the opportunity to generate revenue from photographic tourism near the northern tourism circuit.<sup>15</sup> But WMAs in the Tarangire ecosystem still do not earn enough revenue to make them economically viable for communities to protect wildlife. This needs to change if WMAs are to deliver conservation and economic development results.

## RECOMMENDATIONS

- **Outside support must supplement management costs:** It is hoped that in five to ten years WMAs will be more economically viable operations able to cover the costs essential to keeping wildlife protected. However, at present this is simply not the case, and WMAs risk failure if additional funding, resources, and support are not provided. Tanzania's government has an important role to play here, perhaps providing scouts, training, vehicles or other forms of support to WMAs, which is an arrangement seen in countries like Namibia and Kenya, where community-based conservation has had some great successes and government is increasingly investing resources in community conservancies and other local institutions.
- **Payments to Wildlife Division should be reconsidered:** The government has an opportunity to invest more in WMAs in order to improve their performance and viability. One way to do this is to ensure that the WMAs retain more of the revenue that they generate from tourism and trophy hunting. Currently the Wildlife Division (WD) retains a significant (30% of photographic and 55% of hunting) portion of the WMA revenue, which effectively serves as a high rate of taxation on the revenue WMAs generate from village lands. Communities are not earning enough to be incentivized to conserve, and thus the level of WMA revenue that is channeled to WD should be reconsidered in order to help WMAs deliver better for communities and conservation.
- **Support greater investments in WMAs:** Promoting new or increased tourism investments in WMAs, such as establishing campsites, building new roads for quick access into parks, or enhancing marketing efforts, should be encouraged and supported. Further, tourism operators need to be held accountable and contribute to WMAs when they benefit from them.
- **Policies should enable WMAs to generate increased revenue:** The Tanzania National Park Authority's (TANAPA) new single-entry policy is a constraint to tourism revenue generation in WMAs such as Randilen, where many tourists visit Tarangire National Park as part of their stay in the WMA. Enabling multiple-entry, at least for guests staying in WMAs on their borders, is a way to support and promote the WMAs and thus the conservation of the wider park ecosystem.

1 Chase MJ, Schlossberg S, Griffin CR, Bouché PJ, Djene SW, Elkan PW, Ferreira S, Grossman F, Kohi

2 Strengthening the WMA model in the Tarangire ecosystem is a key priority of the USAID-funded Endangered Ecosystems of Northern Tanzania (EENT) project implemented by the Northern Tanzania Rangelands Initiative, a collaboration involving international organizations such as The Nature Conservancy and Wildlife Conservation Society, and local implementing organizations such as Honeyguide and the Ujamaa Community Resource Team.

3 According to the new 2016 non-consumptive tourism regulations, in WMAs 70% of revenue goes to the WMA, 25% to Wildlife Division and 5% to District.

4 For comparison, it is estimated that effective management of national parks in other parts of Africa, such that elephants and other wildlife are protected from poaching, can run as high as \$800 per km<sup>2</sup>

5 TANAPA (Tanzania National Parks Authority) (2013)

Annual Report 2012/2013, TANAPA, Arusha.

6 Acacia Natural Resource Consultants and PROTECT (2016). Analysis of WMA Financial Viability and Options Study.

7 Data from Elewana. Tourism at Tree Tops actually decreased from 2012 on due to an increase in livestock in the area as community was less incentivized to stay out. Also, access and permitting became increasingly problematic and tour operators were less interested in visiting the lodge

8 Currently NGOs, supported by donors, are fulfilling a lot of WMA management's responsibilities.

9 Honeyguide (2016). WMA Financial Viability Tool. Developed based on data from a larger WMA financial viability study funded by USAID and carried out by Acacia Natural Resource Consultants and PROTECT.

10 The survey was carried out in September 2016 for the USAID-funded "Endangered Ecosystems of Northern Tanzania" project.

11 This figure is extrapolated from the Enduiment WMA management expenses and takes into account the differences in Makame WMA vs. Enduimet. It is a rough but conservative estimate for what it takes per km<sup>2</sup> to effectively protect the area from poaching, charcoal burning, agricultural encroachment and other forms of degradation.

12 Based on a conservative estimate of \$200/sq km over the 3,790 sq km area, which would be required to effectively protect the area from poaching, charcoal burning, agricultural encroachment and other forms of degradation.

13 [http://www.ucl.ac.uk/pima/docs/may2016\\_closing\\_03\\_burgess.pdf](http://www.ucl.ac.uk/pima/docs/may2016_closing_03_burgess.pdf)

14 Ibid.

15 Acacia Natural Resource Consultants and PROTECT (2016). Analysis of WMA Financial Viability and Options Study.

NTRI is a group of NGOs working together across Tanzania's northern rangelands in hopes of creating a thriving landscape that supports both people and wildlife, and is resilient to future stress from climate change and human population growth. The USAID-funded Endangered Ecosystems of Northern Tanzania (EENT) project is being implemented by the NTRI.