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TANZANIA WILDLIFE MANAGEMENT AREAS EVALUATION

FINAL EVALUATION REPORT

July 15, 2013

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ACRONYMS AND ABBREVIATIONS

AA	Authorized Association
AAC	Authorized Association Consortium
ADMADE	Administrative Management Design Program
AWF	African Wildlife Foundation
CAMPFIRE	Communal Areas Programme for Indigenous Resource Management
CBNRM	Community-Based Natural Resources Management
CBC	Community-based Conservation
CBO	Community-based organization
CBC	Community-Based Conservation
CD	Capacity Development
COMACO	Community Markets for Conservation
DALDO	District Agricultural and Livestock Officer
DED	District Executive Director
DGO	District Game Officer
DFID	UK Department for International Development
DHA	Danish Hunters Association
DNRAB	District Natural Resources Advisory Board
DPG-E	Development Partners Group-Environment
FZS	Frankfurt Zoological Society
FGD	Focus Group Discussion
GoT	Government of Tanzania
HH	Household
IRDNC	Integrated Nature Conservation and Rural Development
KAP	Knowledge, Attitudes and Perceptions
LUP	Land-use plan
MNRT	Ministry of Natural Resources and Tourism
MoU	Memorandum of Understanding
NGO	Non-governmental organization
NRM	Natural Resources Management
PAWM	Planning and Assessment for Wildlife Management
PA	Protected Area
RZMP	Resource Management Zone Plan
TANAPA	Tanzania National Parks
TAWIRI	Tanzania Wildlife Research Institute
USAID	United States Agency for International Development
VGS	Village Game Scout
WCS	Wildlife Conservation Society
WD	Wildlife Division
WMA	Wildlife Management Area
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

The increasing importance of the Wildlife Management Areas (WMAs) in Tanzania, where 17 WMAs are now functioning and 22 others are in various stages of development, begs the question of what successes have been achieved and what challenges remain to be addressed if this Community-Based Conservation model is to be sustained and even scaled up. There has not been a country-wide evaluation of WMAs since the pilot-phase evaluation in 2007 at a time when most WMAs were too new to yield firm projections for the long term. The evaluation conducted at this time is not truly a final evaluation, because there is every donor intention of carrying this model forward and perhaps scaling it up. What is needed is a report on the experience to date, in which the successes and weaknesses of various WMAs can be frankly discussed and a potential way forward can be charted.

The evaluation team chose five of the nine pilot WMAs for which full baseline studies were available: Wami-Mbiki, Pawaga-Idodi, Ipole, Burunge, and Enduimet. All five had been officially launched in 2003 and all had reached fully registered status with user rights by 2007. The four-person Tetra Tech/Maliasili Initiatives evaluation team spent approximately four weeks in the field visiting 15 villages around these five WMAs, at the same time that a 750-person household survey was carried out by EcomResearch Group in 25 villages in the same WMAs.

The evaluation has three objectives:

- (1) Assess what have been the key outcomes and achievements of the overall WMA approach for the Tanzanian government, local communities, and conservation of wildlife and other resources in terms of creating increased financial benefits, strengthening governance, improving human-wildlife conflicts, and strengthening wildlife management.
- (2) Identify whether the policy framework and the WMA institutional structure is effective and sufficient in meeting the overall WMA goal of providing benefits to both communities and wildlife.
- (3) Identify what opportunities and challenges exist to the sustainability and scaling up of the current approach.

BACKGROUND ON WMAS

WMAs represent a new approach to wildlife management in Tanzania that has its roots in the late 1980s. This new approach emerged from the perceived failure of past, traditionally centralized wildlife management policies and practices in Tanzania. The crisis facing wildlife at that time provoked changes in government thinking about wildlife policy and management, and also paved the way for USAID to initiate what became more than 20 years of support to the wildlife sector. By this time government officials in Tanzania were already sounding the call to promote these new community-based approaches and WMAs emerged during the reform process in the 1990s as the framework for communities to manage and benefit from wildlife.

This strategic shift towards a community-based conservation framework was enshrined in the 1998 Wildlife Policy of Tanzania. This policy promoted wildlife management at the village level by allowing “rural communities and private land holders to manage wildlife on their land for their own benefit” and “devolving management responsibility of the settled and areas outside unsettled PAs (protected areas) to rural people and the private sector.”

WMAs began to be formally implemented in 2003, following WMA Regulations first issued in 2002, and the first WMAs were gazetted 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.

REGIONAL CBNRM LESSONS FOR WMAS IN TANZANIA

In order to better understand and frame the challenges and opportunities faced by WMAs in Tanzania and to inform future strategies to support and strengthen WMAs, this evaluation provides a brief review of key lessons learned from Community-Based Natural Resources Management (CBNRM) approaches in other East and Southern African countries. Some of the key lessons from these regional experiences which are relevant to WMAs include the following:

- The importance of linking benefits and costs from wildlife at the local scale to create local incentives for conservation, and of further scaling incentives down to the household level to ensure individual benefits and shape individual behavior. For example, Zimbabwe's CAMPFIRE as it evolved in the 1980s emphasized that to enhance local governance, in particular accountability and transparency in the use and allocation of revenues, and thus local benefits from wildlife, communities should be of a scale so as to be able to make decisions in face-to-face settings and interact on a regular basis. This meant being no larger than several hundred households. CAMPFIRE also emphasized the importance of individual household benefits from wildlife in the design of effective CBNRM incentives, an issue that emerges from this review as an important one to consider in WMA design and facilitation.
- The primacy of devolving broad rights over wildlife use and governance, and in particular control over economic benefits from wildlife, to communities. This level of relatively full devolution has been central to Namibia's model of CBNRM, Communal Conservancies, which is considered the most successful in the region and which emerged in policy reforms in the early 1990s at a similar time as WMAs were being conceived. In these conservancies, communities retain 100% of revenue generated from hunting or tourism. The Namibian CBNRM also model recognizes that the primary concern of local communities revolves around economic priorities. The state benefits from the conservancies through overall rising tourism and wildlife-related enterprise, based on the growing abundance and value of the wildlife resource asset in communal lands. Wildlife conservancies have a diverse range of economic activities open to them and there is significant national level support for Conservancies. These experiences are all relevant to crucial issues raised in this review with respect to WMA function and design, including revenue sharing and distribution, enterprise development and diversification, and policy provisions.
- The importance of taking a holistic approach to CBNRM, integrating resource management benefits and revenues from multiple sectors, and integrating compatible land uses such as wildlife conservation, tourism and livestock management. Kenya's Northern Rangelands Trust (NRT) is a leading CBNRM facilitation organization and has developed a holistic, integrated and multi-resource approach to CBNRM that provides an important set of lessons for WMAs, particularly in northern Tanzania's pastoralist areas where co-management of livestock and wildlife must be the foundation for any WMAs in those areas.

ACHIEVEMENTS AND BENEFITS OF WMAS TO TANZANIA

It is important to recognize that the establishment of WMAs and the fundamental shift in philosophy and perspective that this represented in Tanzania is a significant achievement in and of itself. The passage of legislation and regulations that made WMA formation possible required many years of coordinated efforts by dedicated government professionals, donors, NGOs, and community leaders who recognized that the best option for conserving wildlife outside of Protected Areas was through direct involvement of local populations in managing wildlife for tangible local benefits. The WMAs represent the best hope for conserving wildlife outside of Tanzanian protected areas while enhancing rural economic development.

Key achievements include:

- Passage of the 1998 Wildlife Policy (revised 2007) laid out the initial underpinnings of Tanzania's approach to CBNRM through the establishment of WMAs.
- Issuance of Guidelines for WMAs in 2002 and Regulations in 2004. This set the stage for the piloting of the WMA approach.
- Beginning in 2003 the creation of 17 WMAs covering 28,389 km², or about 3% of Tanzania, providing enhanced protection of critical habitats outside of protected areas.
- Successful completion in these 17 WMAs of a 12-step participatory process leading to WMA gazettelement by the national government provided proof of concept that WMAs could be established and earn revenues.
- Passage of the 2009 Wildlife Conservation Act (revising the 1974 law) codified the WMAs in legislation and set the stage for improved devolution to communities.
- Creation of the Authorized Association Consortium (AAC) resulting in a national voice for the WMAs. The AAC has become a critical part of the WMA approach and its future development could contribute significantly to the long term success of the WMAs.
- Passage of the 2012 WMA regulations that crucially strengthened communities' involvement and influence over trophy hunting concession allocations in WMAs, as well as provided greater clarity around benefit-sharing.

Some selected benefits produced by the WMAs include:

- Increased protection of areas that are considered ecologically important either as dispersal areas, wildlife corridors or simply important wildlife areas.
- While records are difficult to access, financial benefits to the Wildlife Division (WD) and to district governments appear to have increased following the establishment of WMAs.
- Communities have more power: WMAs have given villages a framework within which they can better manage their land and benefit from the wildlife living there through legal user rights.
- Villages in WMAs with earnings are in turn now receiving their share of financial benefits and using them to support social infrastructure development.
- For the private sector the new regulations have more clearly defined the framework for private sector investment in WMAs, providing a starting point for negotiation and exploration of potential investments.
- While quantitative data on wildlife numbers and habitat conditions are difficult to find, there is some evidence that the creation of WMAs has led to improved biodiversity conservation.

CHALLENGES THREATENING THE SUCCESS AND SUSTAINABILITY OF WMAS

Governance Challenges

Good governance is critical to the long term success of the WMAs. WMAs have established governance structures (constitutions, boards, leadership, etc.) that are, for the most part, understood and used by the Authorized Associations (AAs) running the WMAs. That said, the evaluation team noted some critical challenges to local governance that will need to be addressed if WMAs are to achieve long term success for both conservation and poverty alleviation:

- In some cases AA leaders seem to be hanging on to power through local support networks in spite of poor governance practices, lack of revenue generation and limited management effectiveness.
- Efficient recordkeeping (a governance function) was a serious issue in most of the WMAs visited.
- The knowledge gap between villagers, even many village council members, and AA leadership is substantial, in spite of the existence of village AA representatives.
- Budgeting by the AAs is not realistic. It is not based on planning or a realistic analysis of costs.

- The process of selection of AA members is democratic, but the team observed that the resulting AA organization tends to place itself above the village-level government. In theory, the AA is accountable to the village councils that form the WMA but in practice this is not always the case.

Villager awareness of the WMA

There is a high level of agreement between survey results and focus group responses that villager awareness and understanding of the structure and functioning of WMAs is minimal. This lack of awareness has a great deal to do with lack of communication between AA leaders and Council representatives and ordinary villagers.

Governmental Involvement in AA Decision Making

The WMA approach represents a significant step forward in the devolution of wildlife-related decision making authority in Tanzania. However, there are issues related to government involvement in WMA decision making in all five of the WMAs visited by the evaluation team.

Inadequate Checks and Balances

Checks and balances are clearly needed to safeguard the independent operation of the AA in each WMA, while preventing abuses of responsibility and power that can harm local citizens. A good example of the latter is the potential for AA approval of fraudulent, inequitable, or insufficient contracts with investor companies in the WMA.

Lack of Transparency and Accountability among WMA stakeholders

Probably the clearest issues in good governance at any level of organizational functioning are transparency and accuracy of information and accountability of actors and decisions to others. Recent studies of WMAs and the evaluation team's observations indicate that WMAs continue to face challenges of lack of transparency and accountability.

Incomplete Devolution of Responsibilities to AAs

Some basic governance challenges stem from the paradigm shift away from central governmental ownership and complete control of land and natural resources. A true devolution of control of wildlife, particularly hunting blocks, to local communities requires substantial political will that is not shared by all actors within government for reasons having to do with old habits, vested interests and fears of diminished control and influence.

Co-optation by District Government

District governments still seem to consider village projects financed by WMA proceeds as part of overall district development projects. This coopting of these activities is not necessarily a negative. In fact it is really the sign that WMAs are actually contributing to local development objectives. The key issue is that these benefits do not necessarily add anything to the investments made, but rather the districts view these villages as places where they do not have to bring other funds, so there may actually be little net benefit to villages.

Ability to withdraw from a WMA

A final point on governance concerns the apparent lack of any mechanism or process for a village to leave a WMA.

Economic Challenges

Do villagers still think the WMAs are a good idea?

The vast majority of villager focus group participants indicated that they greeted the creation of their WMA with interest or enthusiasm as promising serious economic benefits. Most still perceive the WMA positively, but they are becoming impatient with the lack of individual and even community social benefits.

Costs of establishing and running WMAs are too high and payments from government too unpredictable.

A review of the literature on WMAs and observations in the field indicate that costs required to establish and operate WMAs are high, and that most WMAs are not yet financially self-sustaining. The evaluators observed that WMAs which are not able to cover their operational costs are often brought to a standstill in terms of patrolling and conservation work, since no clear sources of external support exist. A huge drain on WMA incomes is that they essentially pay a 35% tax on their revenues (not profits) from non-consumptive tourism. This is a large chunk of their earnings that does not return in the form of useful services or other investment by government. In addition, the process of investors first paying government and then government processing and making payments to WMAs is cumbersome. Payments from government are too sporadic and unpredictable, making planning and management of the WMA problematic.

Lack of diversified (and sustainable) revenue streams into WMAs

Most WMAs are relying on only one or two income streams, mostly photographic or hunting tourism. The risk in this is that the WMA could collapse, should these sources disappear for a significant period of time, something that is not unheard of in the tourism industry. There are opportunities in WMAs, however, to explore and tap into other sources of income, especially those deriving from local resource uses.

Benefits to communities are low and are not perceived to be adequate at the household level

All focus groups could identify social services and infrastructure built entirely or partially from AA payments to their village councils. Focus group discussants generally mentioned conservation of wildlife and provision of social service infrastructure as the most obvious benefits deriving from the WMA. They did not usually recognize benefits for individuals and families.

Conservation Challenges

What are people's attitudes about wildlife and conservation?

Village council and villager focus groups routinely expressed the opinion that conserving wildlife for future generations was a value in itself. At the same time, village councilors and ordinary villagers almost always agreed that wildlife was increasing inside the WMAs, leading to crop and livestock losses in some places more than in others. They were quite happy to see wildlife increasing, if that did not mean household economic losses.

Inadequate protection of wildlife resources

All of the WMAs visited had Village Game Scout (VGS) systems to protect wildlife resources, in general we found the VGS to be energetic about their work and well informed about the WMA. However of the five WMAs visited, only Enduimet had a fully functional and effective system in place. This is largely being funded externally.

Inadequate monitoring of wildlife resources in WMAs

In most of the WMAs visited, there is no effective monitoring of wildlife indicators, such as wildlife numbers (increase or decrease), wildlife movements, or even poaching incidence.

Habitat fragmentation and blockage of migratory corridors

Some WMAs were designed to be or to reinforce wildlife corridors with the objective of maintaining ecological and genetic connectivity between protected areas. Without tracking changing land use within the WMAs, it is difficult to ensure that these corridors will function over the long term.

Challenges in the Process of Establishing WMAs

At the end of the first WMA pilot phase in August 2006, at least two evaluations and a related paper were published that identified many of the challenges observed by the current evaluation team, notably that the 12-

step establishment process is lengthy and costly. It is important that the next phase of WMA support take these challenges into account and that new approaches to establishing WMAs are piloted.

Challenges to Understanding the Impacts of WMAs on Constituent Villages

Much like the situation with wildlife monitoring there is no consistent monitoring of socio-economic or other indicators that would provide meaningful information about the impacts the WMAs are having on their constituent villages.

Challenges to Gender and Disadvantaged Groups

When undertaking CBNRM there is a need to understand the role of and actively engage with disadvantaged groups. This is not simply out of a desire for fairness but because different social groups interact with and impact natural resources in different ways. Women have certainly been included in all activities, particularly in local community development projects and AA membership but no gender analyses of differential impacts of WMA activities have been carried out.

CONCLUSIONS AND RECOMMENDATIONS

This review found that WMAs in Tanzania are presently at a key inflection point in their evolution, with a number of possible future pathways of development. Considerable progress has been made during the past decade in terms of creating a basic legal and institutional framework for WMAs; supporting communities to establish the basic management structures and land use patterns required to form and oversee WMAs; and building broad support for WMAs as a key component of both conservation and natural resource-related development policies and approaches in Tanzania.

However, despite this significant progress, major challenges remain, particularly in the economic and governance realms. New approaches to organizational development of AAs, enterprise development and private sector engagement in WMAs, and larger-scale wildlife sector governance issues will be an important element of continuing support by USAID to WMAs, and create numerous opportunities for future support to be designed in a more strategic way. Our recommendations highlight these opportunities and suggest specific steps for developing them.

Local Governance

Local governance is fundamental to the delivery of WMAs on all of their social, institutional, and conservation objectives. A major conclusion of this review is that at present the management and governance capacity of AAs remains low. Major performance deficiencies exist and represent one of the key current threats to existing WMAs.

Strengthening the capacity and performance of WMA AAs

- ❖ Support the design and implementation of a comprehensive organizational capacity development (OCD) program for WMAs that should be incorporated into the overall WMA support program.

Transforming local awareness in WMAs for enhanced accountability

- ❖ Support AAs to carry out continuous awareness and communications programs that enhance transparency and encourage villagers to hold AA leadership accountable for the performance of the WMA.

Macro-Governance

Shifts in power and authority that grant local communities clear rights over natural resources are a foundation of any CBNRM program. Despite progress, devolution is incomplete, key policies or procedures undermine the viability of WMAs from both a governance and economic perspective.

Addressing wildlife sector governance, structural and economic issues

- ❖ More engagement on cross-sectoral natural resource management, policy, and governance issues with the Development Partners Group- Environment (DPG-E) and the government.

Transitioning towards the integration of community-based wildlife management and forestry

- ❖ In the next phase of WMA support, work with the MNRM and WMA facilitators to pilot WMA and Village Land Forest Reserve (VLFR) integration in high-potential forest areas.

Clarifying and rationalizing actor roles and responsibilities

- ❖ Support WMA facilitators, AAs, private sector partners and the WD to review the roles and responsibilities of the various WMA actors and re-develop them in a participatory fashion that reinforces mutual checks and balances between the actors.

Developing transparent revenue management and full wildlife revenue retention in WMAs

- ❖ Support a collaborative decision making process (among WMA stakeholders) on optimal revenue collection and management options in WMAs with the goal of improving transparency and accountability and increasing financial benefits to WMAs .

Economics & Enterprise

The fundamental underlying assumption behind the WMA concept is that by granting communities rights to manage and benefit from wildlife, they will change their land and resource use practices (e.g. land-use conversion and illegal hunting) to support sustainable use and conservation. There are considerable challenges and emerging opportunities in the realm of enterprise development, financing models, economic diversification, and value chain linkages which should be a priority focus for development in the next phase of WMA support.

Improving the Economic Viability of WMAs

Two basic issues urgently needing attention are:

1. The overall level of business / financial planning and range of earnings being generated in WMAs is substantially inadequate and many opportunities are currently being missed.
2. The currently unsupportable cost structure of WMAs undermines their overall viability.
 - ❖ Support the GoT to evaluate the financing of WMAs in recognition of the human-wildlife buffer interface they provide for core protected areas and ecosystem functioning critical for Tanzania's billion dollar tourism industry.

Diversifying support for land-based and resource-use linked livelihoods and enterprises

- ❖ Develop a new program that promotes the diversification of revenue streams and enterprise opportunities in WMAs from an expanded suite of natural resources with the specific aim of improving individual and household benefits through existing and new entrepreneurial natural resource-based opportunities.

Leveraging the financial resources and skills of the private sector as a key means for improving the sustainability and performance of WMAs.

- ❖ Support a program with the AA Consortium and MNRT to develop meaningful incentives and support to attract private sector investment into existing WMAs.
- ❖ Support the WD and WMA facilitators to pilot the leveraging of the skills and experience of the private sector in establishing WMAs.

WMA Performance Monitoring

As described in our findings there is no consistent monitoring of wildlife, socio-economic or other indicators that could be used to better understand the performance of the WMAs. The AAs need to understand and buy in to the importance of monitoring in order to better understand the impacts of their efforts as a tool for improving management.

Supporting the development of a WMA performance monitoring system.

- ❖ Support the development and implementation of a practical WMA performance monitoring system capable of serving local (AA) and national level CBNRM management needs.

Design and Facilitation

In order to address many of the major issues related to policy and governance, economics and enterprise, and wildlife management as discussed in these conclusions and recommendations to this review, it will be important to not only consider *what* is done but *how* it is done.

Optimizing the WMA establishment process and reducing donor dependency

- ❖ Support the AA Consortium, private sector, Wildlife Division (WD) and WMA facilitators to work together to find ways of streamlining the WMA establishment process and to reduce the costs of WMA establishment.
- ❖ The WD should, in consultation with stakeholders, establish a fair process for a village to leave a WMA.
- ❖ Future support to WMAs should be cognizant of and strive to design facilitation in ways that avoid donor dependency.

Reviewing the rationale for determining the size and structure of WMAs and how benefits are allocated between constituent villages

- ❖ Facilitation of WMAs should allow for more negotiation and flexibility in the development of revenue sharing mechanisms and ratios between constituent villages.
- ❖ WMA facilitators and the WD should give renewed consideration during the WMA establishment and planning process to the trade-offs between size, benefits, and accountability in the design of WMAs.

Promoting the inclusive participation and improvement of benefits for women and youth

- ❖ Require the development and integration of gender analyses to better understand and positively impact the differential roles of and potential benefits to disadvantaged groups in the WMAs.

Broadening, indigenizing and diversifying the involvement of facilitating organizations and skill sets

- ❖ Support to WMAs should prioritize developing stronger relationships and a greater leadership role for Tanzanian civil society organizations.
- ❖ Support should also bring about greater involvement of more local grassroots organizations in facilitating WMAs as an extension of promoting a greater role for Tanzanian CSOs.
- ❖ Program particular support for growing the organizational capacity and influence, as well as strengthening the internal accountability and administration, of the AA Consortium.
- ❖ Seek to enroll the support of a wider range of organizations with skill and experience in promoting self-sustaining initiatives and enterprise.

1.0 EVALUATION PURPOSE

WMAs have been increasingly seen as an effective means to deal with growing concerns in Tanzania around land and land tenure security, increasing population growth, and pressure of communities on protected areas. Beyond the original 14 WMAs that successfully reached fully registered status, many of which are earning revenues, three more have recently joined this group, and there are 22 WMAs in various stages of development. This has clearly become a substantial movement in Tanzania and the government has quite rightly adopted WMAs as a country-wide Community-Based Conservation policy initiative.

WMAs have received considerable attention and substantial financial support since their formal launching in 2003, but little attention has been paid to gathering clear evidence on their institutional, financial, and economic viability. Both government and donors wish to know at this point what the experience has been in establishing and facilitating WMAs, what successes have been realized, and what challenges to sustainability remain going forward.

The purpose of this evaluation is thus to determine the effectiveness and impact of the WMA approach and its policy framework. A key underlying theme is the validity of the hypothesis that WMAs effectively provide incentives for communities to protect the wildlife on village lands and that they can realize significant economic benefits from so doing.

The evaluation has three objectives:

- (1) Assess what have been the key outcomes and achievements of the overall WMA approach for the Tanzanian government, local communities, and conservation of wildlife and other resources in terms of creating increased financial benefits, strengthening governance, improving human-wildlife conflicts, and strengthening wildlife management.
- (2) Identify whether the policy framework and the WMA institutional structure is effective and sufficient in meeting the overall WMA goal of providing benefits to both communities and wildlife.
- (3) Identify what opportunities and challenges exist to the sustainability and scaling up of the current approach.

The evaluation focused principally on the benefits received by various stakeholders and beneficiaries, on the effectiveness and cost efficiency of WMA design and implementation, and on the awareness and attitudes of community members toward WMAs.

Relying on a variety of data collection methods described in this report, conclusions, lessons learned and recommendations will be drawn from the experience of bringing the WMAs into existence and their likely sustainability in providing positive benefits and outcomes for communities and wildlife.

2.0 BACKGROUND ON WMAS IN TANZANIA

This section contextualizes WMAs within the change and evolution of Tanzania's wildlife sector and natural resource management policies, as well as wider economic policies, as they have changed and evolved during the past 20 plus years. We describe the early evolution of community-based conservation (CBC) during the 1990s, and the formal emergence of the WMA framework in the 1998 Wildlife Policy and 2002 WMA Regulations, which launched the official WMA pilot establishment period and the past decade of WMA implementation based on those regulations and their subsequent amendments.

WMAs, and USAID support of community-based conservation in general since the 1990s, are also set against the wider backdrop of the emergence of community-based natural resource management (CBNRM) in eastern and southern Africa. We provide a brief review of some of the key features and lessons from CBNRM experience, and USAID support of CBNRM, from elsewhere in the region, in order to provide this regional context for WMAs and as the basis for subsequent comparative analysis of issues that arise in the course of this review, between WMAs and other regional experiences.

EMERGENCE AND EVOLUTION OF WMAS IN TANZANIA: FROM CRISIS TO DEVOLUTION

WMAs represent a new approach to wildlife management in Tanzania that has its roots in the late 1980s. These new approaches emerged from the perceived failure of past, traditionally centralized wildlife management policies and practices in Tanzania. By the 1980s Tanzania's wildlife sector faced a state of crisis. As Tanzanian civil servants' wages declined precipitously during the 1970s and 1980s due to various economic challenges in the country, state law enforcement capacity was greatly reduced and illegal use of wildlife, driven in part by rising prices of ivory and rhino horn, surged. This dramatic reduction in law enforcement facilitated a boom in illegal use. As ivory and rhino horn prices soared and commercial poaching intensified during this period, Tanzania lost half of its elephants and nearly all of its black rhinos (WSRTF 1995a).

This crisis facing wildlife provoked changes in government thinking about wildlife policy and management, and also laid the way for USAID to initiate what became more than 20 years of support to the wildlife sector. As one of the first steps to re-think wildlife management and policy frameworks, USAID supported a Planning and Assessment for Wildlife Management (PAWM) process in the early 1990s to take stock of the wildlife sector and make policy recommendations for reform. A national workshop on community-based conservation was convened under PAWM in 1994, to capture initial experiences from around the country in piloting community-based conservation during the early 1990s, and also to introduce key experiences with CBNRM from elsewhere in southern and eastern Africa (Leader-Williams et al. 1996). By this time government officials in Tanzania were already sounding the call to promote these new community-based approaches.

A Wildlife Sector Review Task Force, convened through this policy review process under the auspices of the Ministry of Natural Resources and Tourism (MNRT), developed much of the thinking that informed the 1998 Wildlife Policy and the initial design of WMAs. The conclusions of this Ministerial task force, made up of a combination of Tanzanian wildlife officials and external technical advisors, noted that, "The present state ownership of all wildlife breaks down incentives for proper custodianship by rural communities for the

wildlife among which they live” (WSRTF 1995a: 2). The task force further concluded: “It is essential to the future of wildlife conservation in Tanzania that local communities who live amongst the wildlife should derive direct benefit from it, otherwise all future conservation efforts will be condemned to failure” (WSRTF 1995b: 100).

This strategic shift towards a community-based conservation framework was enshrined in the Wildlife Policy of Tanzania. This policy promoted wildlife management at the village level by allowing “rural communities and private land holders to manage wildlife on their land for their own benefit” and “devolving management responsibility of the settled and areas outside unsettled PAs to rural people and the private sector” (MNRT, 1998b). This intended to ensure that “wildlife conservation competes with other forms of land use” (MNRT, 1998b). The logic model for WMAs, as depicted in Figure 1, was clearly laid out in this 1998 policy and has remained at the center of official thinking around WMAs ever since: the imperative to devolve control over wildlife to communities so that they can capture benefits from wildlife, possess incentives to invest in wildlife conservation, and take actions that promote conservation on their village lands. These assumptions similarly underlie community-based conservation programs elsewhere in Africa and much of the world. How WMAs have in practice performed and evolved in relation to this logical framework lies at the center of the questions examined by this review.

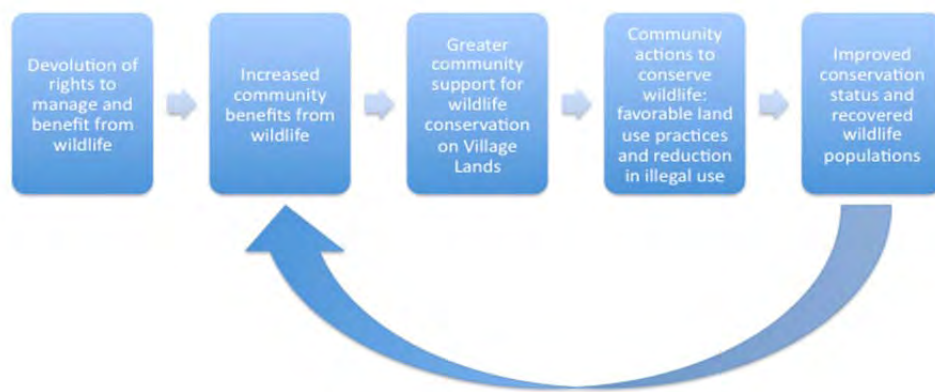


Figure 1: Basic illustration of WMA logic model, based on the contents of the Wildlife Policy of Tanzania (1998) and Wildlife Sector Review Task Force of the mid 1990s.

The wildlife sector reforms of the late 1990s were also part of a much broader set of economic and political reforms occurring in Tanzania during this period, all of which aimed to liberalise the economy as well as the single-party political system that prevailed prior to 1992. Local government reforms called for decentralization of service provision from central Ministries to the district level, in order to bring services closer to rural citizens. Forestry policy had been overhauled in a similar manner to wildlife, to promote local ownership of forests and community management, through the 1998 National Forestry Policy and 2002 Forest Act. The mid-1990s witnessed a debate over land tenure reform which resulted in a new land policy in 1995 and new land legislation in 1999. These land tenure reforms sought to provide a framework for promoting private investment and ownership of land, as well as to secure community rights amidst substantial pressure to do so following the widespread land tenure insecurity of the previous two decades. The new legislation retained formal ownership of land in the hands of the state but strengthened the legal status of customary land rights and established a more accountable governance framework for village councils to manage lands on behalf of village assemblies.

WMAs began to be formally implemented in 2003, following WMA Regulations first issued in 2002, and the first WMAs were gazetted in 2006 (see Table 1, WMA timeline). 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.

The establishment of WMAs occurs through granting the member communities, through their own community-based organizations (CBOs) called Authorized Associations (AA), user rights over wildlife. Communities wishing to establish WMAs must fulfil a range of prerequisite requirements including developing land use plans, resource management zone plans, and instituting by-laws as a legal mechanism to enforce their land use and management plans. Additional procedures are required to initiate commercial investments in WMAs, such as photographic tourism or tourist hunting.

Table 1: A timeline of the evolution of CBC in Tanzania since the late 1980s

Period	Main Characterization	Major Events and Developments
Late 1980s	Culmination of crisis in wildlife management with high levels of illegal use and depletion of wildlife	<ul style="list-style-type: none"> Selous Conservation Programme with German support initiated in 1987 Operation Uhai, an anti-poaching intervention supported by paramilitary security services, initiated in 1989
1990-1995	Early evolution of community-based conservation policy and practice	<ul style="list-style-type: none"> Field pilots established under Selous Conservation Programme and in Ruaha ecosystem Tanzania National Parks establishes benefit-sharing through Community Conservation Services USAID establishes PAWM project which undertakes major policy review, including national conference on community-based conservation convened in 1994 Wildlife Sector Review Task Force reports issued in 1995 which provide first clear articulation of WMAs as center of community-based conservation approaches
1995-1998	Formalization of wildlife policy reforms	<ul style="list-style-type: none"> Wildlife Policy of Tanzania issued in March 1998; formalizes proposed policy reforms and articulates clear definitions and functions of WMAs Pilot projects establishing WMAs proceed to be established around Selous, Ruaha, Serengeti ecosystems with German, British, and US donor support Other major policy reforms in linked sectors include new Forest Policy (1998), National Land Policy (1995, 1997), Environmental Policy (1997); all focus on increased community participation and benefits, decentralization, and stronger private sector role
1998-2002	Creation of WMA legal framework	<ul style="list-style-type: none"> WMA regulations drafted based on provision of Wildlife Conservation Act of 1974 providing for the delegation of wildlife user rights to 'Authorized Associations'; WMA regulations issued in late 2002 Pilot WMA projects continue to develop even in absence of WMA regulatory framework; e.g. Pawaga-Idodi (MBOMIPA) WMA auctions off resident hunting quota to generate increased revenue
2003-2006	WMA pilot period	<ul style="list-style-type: none"> WMA pilot period launched in January 2003 for initial three year period Four WMAs complete formal gazettement by 2006 Widespread concern about time and cost requirements of WMA regulatory framework and limited devolution of control over wildlife management and benefits
2007-2012	New national debates over wildlife governance and WMAs;	<ul style="list-style-type: none"> Surge in public debates around wildlife governance including trophy hunting concessions, poaching,

	consolidation of WMAs as basis of community conservation approach	<p>community benefits, and other issues during this period; increasing public debate around role of corruption in wildlife sector governance including resistance to devolving greater powers to WMAs</p> <ul style="list-style-type: none"> • Passage of Wildlife Conservation Act of 2009 which provides for WMAs in new parent legislation • Certain WMAs (e.g. Ikona, Burunge) begin to generate significant revenues from tourism ventures • New WMAs continue to be formed and WMA programme generally is consolidated as central approach to community conservation and wildlife management outside protected areas
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Challenges in WMA Establishment and Wildlife Sector Reform

In contextualizing the evolution of CBNRM in Tanzania during the past 25 years, it is important to highlight a number of basic challenges that have shaped this process. The process of wildlife sector reform, and particularly the devolution of greater authority and benefits to local communities through WMAs, has been a long-term process fraught with delays and significant challenges. While this is common in many national CBNRM programs it does form a backdrop to WMA development that is important to keep in perspective. Many observers, including a number of individuals closely involved with WMA development and the policy reform process (e.g. Baldus and Cauldwell 2004), have highlighted the perceived reluctance at various points in time of the Tanzanian government, particularly the Wildlife Division, to relinquish control over wildlife and empower local communities. Particularly at issue has been the transfer of control over trophy hunting concessions to WMAs, which involves the transfer of commercially valuable resources and patronage opportunities to local communities (Nelson and Blomley 2010). These institutional challenges have led observers to at times doubt the actual reform trajectory of WMAs and overall sectoral reform in Tanzania, and have contributed to the often-noted delays in policy approvals and implementation since the early 1990s. For example, it took eight years to approve the 1998 Wildlife Policy, another four years to produce the first WMA regulations, and it was not until 2009 that overarching wildlife legislation to repeal the out-dated 1974 Wildlife Conservation Act was passed, even though draft legislation had been developed some 15 years or so prior. These delays, and the time and energy required to move the WMA process forward, are a major reason for the current stage of WMA development. For example, it is notable that Tanzania and Namibia both began their wildlife sector reforms at about the same time—in 1990, when PAWM began in Tanzania and Namibia became independent of South Africa and began exploring options for community conservation based on pre-independence experiences with wildlife conservation. Namibia has, however, advanced far further in implementing community-based conservation and generating economic returns for communities from wildlife since that time. A major reason for this is that in Namibia, devolution of wildlife management has generally had strong and consistent political support, whereas in Tanzania the reform process has seen much more conflict and inconsistent momentum during the past 20+ years (Nelson and Agrawal 2008).

REGIONAL CBNRM LESSONS FOR WMAS IN TANZANIA

In better understanding some of the challenges and opportunities faced by WMAs in Tanzania and for informing future strategies to support and strengthen WMAs, it is useful to provide some comparisons of this experience with CBNRM programs from other countries. This is all the more appropriate because many of these countries, particularly regional leaders in CBNRM such as Namibia, Zimbabwe, Zambia, and Kenya, have received substantial amounts of support from USAID in CBNRM. The following is a brief review of some of the main experiences with CBNRM from these countries, drawing on a range of recent reviews and

scholarship, including a regional USAID CBNRM review (Erdmann 2011) and other syntheses and compilations (e.g. Suich et al. 2008; Roe et al. 2009; Nelson 2010).

Zimbabwe

The unique and highly innovative community of scholars, wildlife managers, and development practitioners that emerged in Zimbabwe in the 1970s and 1980s has had a seminal influence on the evolution of CBNRM in eastern and southern Africa and the entire world. Zimbabwe's Communal Areas Programme for Indigenous Resource Management (CAMPFIRE) was a path-breaking initiative for a number of reasons. CAMPFIRE effectively articulated for the first time a fundamentally different way of thinking about and pursuing wildlife management, based not on protectionist conservation strategies but on encouraging wildlife use by rural communities. The principles and lessons from CAMPFIRE remain of enduring value to CBNRM evolution throughout the region and beyond.

Between 1989 and 2001, CAMPFIRE generated over \$20 million in direct income from wildlife, with about 50% of this revenue going to the communities themselves (Frost and Bond 2008.). Three of CAMPFIRE's guiding principles, which in light of current WMA challenges remain highly relevant to CBNRM in Tanzania, were:

1. The conviction that creating effective incentives for stewardship of wildlife and natural resources rested on a tight coupling between production and benefits. Thus CAMPFIRE envisioned a full **devolution of proprietorship over wildlife to local 'producer communities' in order to create as tight a linkage as possible between the costs and benefits of living with wildlife at the local scale.** However, such devolution was in fact not possible under Zimbabwe's land and local governance arrangements which prevailed in the 1980s; rights over wildlife were granted not to communities but to Rural District Councils, which served as intermediaries. The District Councils were intended to abide by rural communities' decisions about wildlife—for example around choice of investors—and to pass on most revenue back to the communities. But, as Frost and Bond (2008) note, the reality has been that the District Councils have retained about half of all revenue for their own use, greatly reducing the value of wildlife at the local level. This appropriation of benefits by the districts, based on the incomplete devolution of rights over wildlife, has long been viewed as CAMPFIRE's cardinal weakness, effectively undermining many of its initial conceptual principles and ambitions (e.g. Murphree 2005).
2. In thinking about local 'producer communities' CAMPFIRE was carefully attuned to thinking about communal property management and governance and the **appropriate scale** of communities to maximize their efficiency and effectiveness as resource governance institutions. CAMPFIRE believed that to enhance local governance, in particular accountability and transparency in the use and allocation of revenues, and thus local benefits from wildlife, communities should be of a scale so as to be able to make decisions in face-to-face settings and interact on a regular basis. This meant being no larger than several hundred households; or, to translate this into a Tanzanian context, of an ideal size of one or at most a few villages. CAMPFIRE was keenly aware of the advantages of large geographic areas for managing large and economically valuable wildlife species such as elephants, but sought to balance that with equal attention to the appropriate scale for communities to most effectively practice collective governance of their resources.
3. Lastly, CAMPFIRE was also keenly aware of **the importance of individual household benefits** from wildlife in the design of effective incentives under CBNRM. CAMPFIRE's facilitators (involving mainly government wildlife authorities and supporting NGOs) sought to ensure that individual members of the producer communities received direct cash benefits from CAMPFIRE, which they could then collectively decide to retain as individual dividends or to contribute back into collective social services.

Namibia

If Zimbabwe's key role in African CBNRM is as the pioneer and leader, Namibia's role has been to take the principles of CBNRM to their deepest and most far-reaching scope and impact. Namibia created the opportunity for rural communities to establish Communal Conservancies through policy and legal reforms in

1995/96, following a policy design period that began around the time of Namibia's independence from South Africa in 1990. Like Zimbabwe, Namibia's reforms also drew on important prior experiences with devolving rights over wildlife to private ranchers on freehold lands, which showed the way that landholder incentives could transform attitudes towards wildlife production and conservation.

By early 2010 there were 59 Communal Conservancies managing 132,697 km² of communal land, or roughly 16% of Namibia's total land area (NACSO 2010). Conservancies had become major focal areas for wildlife and tourism investments, generating about \$3.7 million in income by 2009, and another \$585,000 in conservancy-funded or derived employment. The conservancies have contributed to the widespread and well-documented recovery of wildlife in Namibia's communal lands, particularly in the semi-arid northwest, including rare or endangered species such as elephants, rhinos, and lions.

As in Zimbabwe, several practical lessons or policy principles of CBNRM in Namibia are particularly salient in informing CBNRM in Tanzania, and for the point of comparison with the course that WMA design and implementation has taken.

1. Most fundamentally, one of Namibia's most important policy decisions and a key to the impacts recorded by the conservancies at the national scale is the fact that Namibian policy and law provides for a **broader and more substantial devolution of user rights to wildlife to local communities** than is found in any other African CBNRM program, or indeed than is the case with wildlife proprietorship in nearly all other countries around the world. Communities are granted broad rights over wildlife once they fulfill some basic criteria—which it should also be noted are considerably less demanding than the pre-requisite requirements for WMA formation. Critically, communities then also retain 100% of revenue generated from hunting or tourism, or any uses of wildlife. **This retention of revenues flows logically from the underlying principle that the primary objective of the conservancies is one of economic development rather than wildlife conservation. The Namibia model recognizes that the primary concern of local communities revolves around economic priorities.** The state benefits from the conservancies through overall rising tourism and wildlife-related enterprise, based on the growing abundance and value of the wildlife resource asset in communal lands, rather than through direct taxation of the conservancies themselves.
2. Benefit generation in the conservancies has promoted a diverse range of activities related to wildlife; as noted above, **own-use hunting by communities**, particularly of more abundant or lower-value wildlife species, is a culturally, socially, and economically important form of use. Many conservancies initiate their own campsites, providing important forms of income without extensive needs for marketing or infrastructure.
3. Namibia's CBNRM program is also distinguished in the **higher-level national political acceptance** and support it has attained, making its way into major development goals for the country and even becoming part of Namibia's global 'brand.' Key to this political and cultural acceptance of CBNRM would appear to be its strong internal constituency and leadership throughout the history of the program, from its outset and even going back to its antecedents of the reforms to wildlife policy on private lands that took place in the 1970s.

Zambia

Like Namibia and Zimbabwe, Zambia was part of the early wave of southern African experiments in CBNRM going back to the 1980s, when key initiatives were established nationally (the Administrative Management Design [ADMADE] program) and in the Luangwa Valley, the country's leading wildlife area. Unlike Namibia, Zimbabwe, and Botswana, however, CBNRM in Zambia has never really taken hold, largely due to policy and governance factors, including the apparent unwillingness of government to devolve fuller rights to wildlife and wildlife revenues to local communities (see Gibson 1999 for a detailed study of the reform dynamics of Zambia's first decade of CBNRM experimentation).

The ADMADE program was established as a national program for sharing revenue from trophy hunting, which is carried out in Game Management Areas in Zambia, which are not exclusive state PAs but rather

communal lands areas. The rationale of ADMADE was to share a proportion of the revenue from hunting with local communities, establish local village scouts to assist in policing poaching, and thereby increase local support for wildlife conservation. As Gibson (1999) and various other reviews have detailed, this approach never created strong local incentives for wildlife conservation; most revenue continued to flow to central government. Subsequent legal reforms and establishment of Community Resource Boards and Village Action Groups have attempted to develop local institutional arrangements for CBNRM, but the reality remains that control over wildlife, allocation of hunting concessions, and much revenue remains centralized.

During the 1990s, CBNRM initiatives in the Luangwa Valley developed a more devolved model whereby communities captured all revenues from trophy hunting, and developed a CAMPFIRE-like model of providing household dividend payments from the revenue. This initiative was at the time considered a regional leader in CBNRM (Dalal-Clayton and Child 2003), but these advances have since been overtaken by a range of policy and governance changes.

The main lessons from Zambia for CBNRM in Tanzania are, in fact, rather similar to Tanzania's own experiences (Nelson and Agrawal 2008), in that both countries highlight the political-economic challenges of devolving rights over wildlife to the local level in the face of central agency incentives to maintain control over wildlife and its economic values. This has clearly been among the foremost challenges in both Tanzania and Zambia over the past 20 years of experimentation with CBNRM. More specifically, Zambia also provides a useful cautionary contrast to Namibia, or even Zimbabwe and Botswana, in terms of **the limited impacts on either local rural economies or wildlife conservation targets that can be expected when CBNRM only constitutes a modest sharing of revenues with local communities that live alongside wildlife**. There has been little evidence of any substantial positive impact from such efforts in Zambia over the past 20 years, and wildlife resources in Zambia today are considered widely depleted.

One bright spot in Zambia with potential relevance to the WMAs is the COMACO (Community Markets for Conservation) non-profit company that uses a business approach to address both poverty reduction and wildlife conservation. COMACO is primarily a food processing business that markets natural food items produced by farmers who practice conservation friendly activities in wildlife areas. (<http://www.itswild.org/>). The company has seen excellent success in recruiting and retaining farmers willing to use more sustainable land use practices.

Kenya

Kenya has experimented with various forms of community-based conservation or CBNRM focused on wildlife since the 1970s. Unlike southern African countries, CBNRM in Kenya is not based on the devolution of rights over wildlife per se; in fact wildlife utilization has been banned in Kenya since 1977, and wildlife management remains strictly centralized. Despite these institutional constraints, rural communities in many wildlife-rich parts of Kenya, particularly Maasai pastoralist areas in the southern and central parts of the country, do possess strong collective rights over their land, which has served as the basis for developing tourism joint ventures based around wildlife conservation, through the establishment of so-called 'conservancies' (it should be noted that unlike in Namibia, the term 'conservancy' has no legal meaning as of yet in Kenya). Large areas of Kenya have now been established as these community conservancies for purposes of CBNRM, most notably in Laikipia and Samburu District under the facilitation of the Northern Rangelands Trust (NRT), where around 19,000 km² is now established in conservancies. USAID has provided extensive support to NRT and these areas (Aggarwal and Thouless 2009).

The establishment of these conservancies in central Kenya and other parts of Kenya's rangelands has had a mixed record, but has achieved some important successes. A key to the NRT model and its rapid recent expansion has been the holistic approach to CBNRM taken. A key initial benefit to the communities from establishing conservancies has been improvements in security—largely from cattle rustling—in what has been a relatively insecure frontier region of Kenya for many years. In addition, establishing local governance mechanisms, including for conflict resolution, around livestock grazing in the conservancies, including establishment of seasonal 'grass banks', has been a key benefit for both people and wildlife. While many of

the tourism ventures in NRT are still struggling to achieve financial sustainability or profit, and to prove their business model, these other benefits have been crucial to building support for the conservancies at multiple scales. This kind of **holistic, integrated and multi-resource approach to CBNRM** provides an important set of lessons for WMAs, particularly in northern Tanzania's pastoralist areas where co-management of livestock and wildlife must be the foundation for any WMAs in those areas.

3.0 METHODOLOGY

The core evaluation team consisting of team leader, evaluation specialist, and two local technical advisors relied on the following data sources: existing documents; key informant interviews; focus group discussions (FGDs) with stakeholder groups, including donors, NGOs, district government officials, village game scouts, village councilors, and ordinary villagers; personal observations; and a household survey of 741 households in 25 villages of five WMAs. The survey duplicated key questions of the 2003 baseline household survey for purposes of comparison, but also added a number of Knowledge, Attitudes, and Perceptions (KAP) questions.

Document Review

The process of assembling and reviewing key documents began in mid-March 2013. A wide variety of documents were collected and posted online to the Google documents website, the most important of which for background context were those relating to the 2003 baseline methodology and studies, evaluations of the pilot phase in 2006 and 2007, other important studies done in 2007 and 2011, a stocktaking roundtable meeting in late 2011, and the recent Biennial Status Report 2004–2012 (2013).

Key Informant Interviews

Key informant interviews and meetings began on April 3. The persons seen individually or in groups in government included the Director of the Wildlife Division of the Ministry of Natural Resources and Tourism and members of the Wildlife Division's Community-based Conservation (CBC) unit that are responsible for WMA liaison and regulatory activities. Other interviews in Dar es Salaam were held with the executive secretary of the Authorized Association Consortium, donor organizations, and conservation and development NGO staff that have facilitated the development of various WMAs. In the field, interviews were held in five districts and 15 villages with relevant district and village-level officials, WMA leaders, and facilitating NGO staff in Iringa and Arusha.

Selection of WMAs and Field Sites

An important methodological issue in the document review was to examine those WMAs for which baseline reports existed and select a manageable number of them for field visits during the evaluation. Five WMAs were selected according to a set of criteria stressing diversity of types: Burunge, Enduimet, Ipole, Pawaga-Idodi, and Wami-Mbiki. Access was an important issue considered alongside geographical dispersion, bio-physical diversity, socio-economic variety, and degree of success in generating revenues.

Household Survey

The household survey undertaken paralleled the one conducted in 2003. Since few questions in 2003 could refer to WMAs that had yet to function in the areas where they were planned, a second set of questions was added to the 2013 survey. This section constituted a Knowledge, Attitudes, and Perceptions (KAP) survey that allowed household respondents to express their opinions and views on a wide variety of WMA issues and characteristics. A summary of the overall results of the household survey and a comparison of 28 key variables between the 2003 and 2013 surveys are presented in Annex D.

The household survey was conducted by EcomResearch Group of Dar es Salaam in the five WMAs selected for study. Between two and seven villages were surveyed in these WMAs, depending on the total number of villages in each. A sample of 30 households was randomly drawn from each of the 25 chosen villages, from which a total of 741 valid survey responses were obtained. The villages selected for the 2003 baseline survey were given preference, but a few substitutions were made. EcomResearch Group submitted a report on its sampling and scheduling.

Focus Group Discussions

The core evaluation team carried out focus group discussions (FGDs) in two to four villages in each WMA, depending on its population size and socio-economic diversity. These FGDs were semi-structured, participatory discussions with a small but variable number of discussants drawn from the following target groups: officers and members of the WMA Authorized Association; officers and members of the village council; representatives of the Village Game Scouts; and male and female ordinary citizens (non-leaders). Given the number and variety of FGDs and distances between villages, only one village per day could normally be covered by the team. Village visits followed an introductory visit to government officials at the district level, in which relevant district officers were interviewed individually or in small groups using semi-structured interview guides.

Data Analysis

Data gathered in FGDs, key informant interviews, and personal observation have been applied to the key groups of questions in the evaluation scope of work: achievements and benefits received, effectiveness and efficiency of WMA design and implementation, and awareness, attitudes and perceptions of stakeholder groups, particularly community members. The consensus results of FGDs and individual interviews have been triangulated against the results of the household survey.

Responses to 28 key demographic, quality of life, and economic questions have been directly compared to response frequencies in the 2003 baseline survey, although there remain problems of causality, since most changes could have occurred without influence from the WMA. Changes between the two surveys are discussed in Annex D (Review of Key Comparisons between Baseline and Evaluation Household Surveys), but there are few household impacts that can be convincingly ascribed to direct effects of WMAs. There are, in fact, few causal linkages between WMAs as they have functioned thus far and the household impacts sought in the 2013 survey. There are, however, a few trends, such as increased population pressure and local resource use, which may influence the future evolution of these WMAs. The comparison data could be useful to support specific programming during the next phase of WMA support.

4.0 FINDINGS

MAJOR ACHIEVEMENTS OF WMAS

While this report focuses primarily on the challenges facing WMAs and the ways to improve their viability, it is important to recognize that the establishment of WMAs and the fundamental shift in philosophy and perspective that this represented in Tanzania is a significant achievement in itself. As described above the passage of legislation and regulations that made WMA formation possible required many years of coordinated efforts by dedicated government professionals, donors, NGOs, and community leaders who recognized that the best option for conserving wildlife outside of Protected Areas was through direct involvement of local populations in managing wildlife for tangible local benefits. The WMAs represent the best hope for conserving wildlife outside of Tanzanian protected areas while enhancing rural economic development. The achievements thus far have set the stage for the next phase of WMA evolution.

Key achievements include:

- Passage of the 1998 Wildlife Policy (revised 2007) laid out the initial underpinnings of Tanzania's approach to CBNRM through the establishment of WMAs.
- Issuance of Guidelines for WMAs in 2002 and Regulations in 2004. This set the stage for the piloting of the WMA approach.
- Beginning in 2003 the creation of 17 WMAs covering 28,389 km², or about 3% of Tanzania, providing enhanced protection of critical habitats outside of protected areas.
- Successful completion in these 17 WMAs of a 12-step participatory process leading to WMA gazettelement by the national government, including village land use plans, environmental by-laws, user rights to wildlife, resource management zone plans, and the formation and registration of Authorized Associations to manage the WMAs provided proof of concept that WMAs could be established.
- Passage of the 2009 Wildlife Conservation Act (revising the 1974 law) codified the WMAs in legislation and set the stage for improved devolution to communities.
- Creation of the Authorized Association Consortium (AAC) resulting in a national voice for the WMAs. The AAC has become a critical part of the WMA approach and its future development could contribute significantly to the long term success of the WMAs.
- Passage of the 2012 WMA regulations that crucially strengthened communities' involvement and influence over trophy hunting concession allocations in WMAs, as well as provided greater clarity around benefit-sharing.
- Initialization of the establishment process for 22 more WMAs.

In addition to enhancing wildlife conservation objectives, the development of WMAs has had clear, if not equal, benefits for key wildlife stakeholders, including the Tanzanian government, local communities, and the private sector.

Benefits to the Tanzanian Government

Benefits to the Government of Tanzania (GOT) from the establishment of WMAs are both tangible in terms of increased revenue and intangible in the form of improved image among environmentalists and international donors. WMA creation has increased the amount of land under some form of wildlife conservation. Established WMAs now cover about 3% of the country, making a significant addition to the

33% already under some form of conservation regime. This increase in protection has come in areas that are considered ecologically important either as dispersal areas (like Ipole and Pawaga-Idodi), wildlife corridors (Burunge and Enduimet), or simply important wildlife areas (Wami-Mbiki). This expansion of land under conservation should enhance the sustainability and productivity of biodiversity resources in and around protected areas with potentially increased financial benefits to Tanzania National Parks (TANAPA) and the Wildlife Division from increased tourism. The 17 current WMAs enhance the conservation of 18 Wildlife Protected Areas (8 national parks, 1 conservation area, 8 game reserves, 1 game controlled area) and 16 forest reserves (WWF-TCO, 2013).

While records are difficult to access it seems that financial benefits to the Wildlife Division (WD) and to district governments have increased following the establishment of WMAs. The WMAs provide a structure under which the WD can better control and collect revenue from non-consumptive wildlife use (photographic tourism), a portion of which goes to the MNRT and District Councils. This money was previously paid directly to villages that benefited from agreements with private sector investors, and little or none of this went to government.

At the district level the establishment of WMAs, particularly the land use planning that occurred during this process, helped districts in some cases to resolve long-standing boundary disputes between villages, reducing the number of land use conflicts. WMAs may have also reduced the financial burden on district governments, since benefits distributed to WMA villages are used almost exclusively to fund social infrastructure projects that would normally be provided by district and national governments. These projects generally include renovation or construction of classrooms, construction of teachers' houses, provision of furniture to local schools, provision of financial aid to secondary students pursuing their education outside the village, construction of health posts or dispensaries, construction of wells or water points, renovation or construction of village administrative offices, and occasionally payment of modest salaries to teachers or health workers.

Benefits to Local Communities

Communities have become empowered. One District Executive Director interviewed by the evaluation team stated that “there has been a small but significant shift in power towards communities,” as a result of WMA creation. WMAs have given villages a framework within which they can better manage their land and benefit from the wildlife living there through legal user rights. Villagers have expectations of increased transparency and good governance concerning wildlife management and the benefits derived from it. At the national level the Authorized Associations Consortium (AAC) has been formed to protect and promote the interests of the WMAs and their constituent villages. This consortium with significant donor and NGO support has successfully lobbied for improved WMA regulations and has supported individual WMAs to push agreements through the Wildlife Division. The benefit sharing percentages defined in both the 2008 non-consumptive use of wildlife and the 2012 WMA regulations have helped WMAs and villages to understand and demand their rightful incomes. Additionally they have opened up new opportunities in the negotiation of agreements with tourist hunting companies. This should in coming years increase the financial benefits to WMAs.

How has household wealth changed in the WMAs over the last 10 years?

As mentioned previously the household survey allowed for some comparisons between data collected 10 years ago during the 2003 WMA Baseline Survey and this Evaluation's 2013 household survey. While it is not possible to say that any changes are caused by the existence of a WMA—and indeed it is unlikely that WMAs have generated direct economic impacts for households—some of the changes in household wealth over time are interesting and important to consider for planning the next phase of WMA support. Selected trends include:

- The percent of houses using durable roofing has increased in all 4 WMAs for which comparative analyses were conducted.
- The average value of all household assets has increased significantly.
- The average value of houses has increased between 6 and 26 times. Note: the authors suspect this latter finding may be due to inaccurate baseline data
- Annex D provides a complete description of comparative analysis results between the 2003 and 2013 household surveys

Villages in WMAs with earnings are in turn now receiving their share of financial benefits. A listing of earnings to 16 WMAs in 2011-2012 can be found in a matrix developed for this evaluation (see separate annex, WMA Matrix). For the most part these benefits are invested in social infrastructure, but most WMAs also provide tuition support to students from constituent villages. Investments are chosen by village councils. Although direct benefits to households are rare, WMAs do provide limited employment opportunities for Village Game Scouts (VGS), allowances for AA representatives and leaders, and direct employment for outside managers, secretaries, and accountants in a few cases. There is also some local employment generated by investor activities inside the WMAs. The USAID funded cash-for-work program carried out in five WMAs between 2010 and 2012 provided temporary employment for significant numbers of villagers in each WMA, while providing improved WMA infrastructure. This work focused on road improvement, VGS posts, gates, honey collection and natural resource facilities, visitor centers and boundary markers.

Communities have benefited from training in a range of areas. VGS have received anywhere from a few weeks to several months of training in wildlife management and protection. AA leaders have received training in administration, financial management, governance, and wildlife management. Financial support has been provided to some students in secondary schools to send them all the way to ‘O level.’ In villages, natural resource or environmental committees have been created to work together with VGS to protect the WMA. These committees can also connect with conservation activities promoted from the district level. Finally, the WMAs are conserving areas containing medicinal plants and sites of cultural significance for communities, such as places linked to traditional rituals.

Benefits to the Private Sector

The private sector has benefited through increased opportunities to develop wildlife-based businesses. That said there have been issues around the effective engagement of the private sector in WMA creation and management. However, the 2012 WMA regulations and the 2008 non-consumptive use regulations have more clearly defined the framework for private sector investment in WMAs, providing a starting point for negotiation and exploration of potential investments. The WMAs provide a less expensive (although currently more complicated) alternative to acquiring rights and developing investments inside protected areas. Finally, the WMAs expand private sector access to conserved areas with potentially more diverse economic opportunities and negotiation with a single Authorized Association.

Benefits to Wildlife and other natural resources

While quantitative data on wildlife numbers and habitat conditions are difficult to find, there is some evidence that the creation of a WMA leads to improved biodiversity. Wami Mbiki WMA, when under donor support, and Enduimet over the past two years have systematically collected data on wildlife numbers that show clear increases in numbers of different species over time. In Wami-Mbiki the AA Council reported that wildlife numbers had increased from 5,000 in 1997 to 31,900 in 2010. However, it also cautioned that poaching has increased over the last three years and even the VGS felt that wildlife numbers had dropped by as much as a third since 2010.

In other WMAs, VGS and even most villagers have anecdotally pointed to increased numbers of wildlife, albeit sometimes in reference to increased human-wildlife conflicts. Some 81% of household survey respondents felt that the WMA had increased the abundance of wildlife, and an equal percentage indicated that wildlife habitat destruction had been halted. Some VGS also reported that there had been reduced wood collection, tree cutting, and even grazing in WMAs, which might explain the apparent improved vegetative cover inside WMAs compared to areas still inside village settlement areas. This, in turn, could contribute to improved conditions for wildlife.

The most obvious potential benefit to wildlife from WMAs is the expansion of wildlife conservation beyond the boundaries of national parks and reserves into dispersal areas and wildlife corridors between protected areas.

CHALLENGES THREATENING THE SUCCESS AND SUSTAINABILITY OF WMAS

Governance Challenges

One of the three original objectives of establishing WMAs was that of strengthening governance, particularly at the local level.¹ While it seems to have been generally considered less important than wildlife conservation and poverty reduction in the basic triad of purposes, strengthening governance was thought to be a logical outcome of the process of devolution of state power over substantial wildlife and timber resources to local populations. Devolution of power from the national to the district level has been an objective in Tanzania for some time.

In fact, good governance is critical to the long term success of the WMAs. WMAs have established governance structures (constitutions, boards, leadership, etc.) that are, for the most part, understood and used by the AAs running the WMAs. That said the evaluation team noted some critical challenges to local governance that will need to be addressed if WMAs are to achieve long term success for both conservation and poverty alleviation. The Draft WMA Biennial Status Report 2004-2012 (2013) devotes two sections to internal AA governance and systemic governance challenges. Most of these challenges were observed in the field by the evaluation team.

Basic governance functions

The status report indicates that governance deals with the decisions an organization makes to pursue its mandate and how these decisions are made and who is involved. Organizational governance differs from management, which focuses on day-to-day operations, by developing an overall vision and strategic direction and by communicating that vision clearly and effectively to stakeholders (EERC 2013). Good governance practices or functions also include defining management structures; power sharing within leadership and management; developing long-term strategies for organizational growth and development; coming up with and following well-defined reporting procedures; putting in place processes to track implementation of decisions; preparing budgets that reflect priorities, upcoming projects, and the costs of ongoing projects; and the maintenance of existing services and infrastructure (EERC 2013).

The evaluation team found that few of these ideal functions were being fulfilled by the five AAs visited during fieldwork. AAs do have an executive and central committee and elect a chairman, one or two vice-chairmen, a secretary, and a treasurer. However, the team found issues surrounding the frequent reelection of non-performing leaders. In Ipole WMA, it was reported that villagers were falsely informed by AA leaders when AA elections were last held that new AA regulations required that they stay in their leadership positions. One of the existing AA chairmen has been in office from the original creation of the CBO (Ipole WMA).

While the replacement of AA leadership every three to five years is often lamented by AA and village councils alike due to the multi-year learning process involved, the retention of the same AA chairman for three terms when the WMA is not performing means that this aspect of governance is not functioning as it should. On the other hand, when an AA does find a good leader, it might be useful to retain him (or her) for more than one term, especially in the WMA's formative years. A sure sign of governance issues is indicated by local

¹ These objectives were wildlife conservation, rural poverty reduction, and strengthening local governance.

leaders that are able to hang on through local support networks in spite of poor governance practices, lack of revenue generation and poor management effectiveness.

Some decisions are certainly made in AAs and do involve the mandate of protecting and managing natural resources within the WMA. However, some activities, such as extending permits and levying fines, appear to be carried out haphazardly without recordkeeping. In fact, efficient recordkeeping (a governance function) was a serious issue in most of the WMAs visited. AA decisions also involve engaging in contracts with outside investors. How these contractual decisions are made and exactly who is involved in decision making is unclear and seems to change from one WMA to the next. Village members are certainly not aware of how and why decisions about contracts with private sector are made.

AAs are not developing overall visions nor strategic plans for WMAs. Where documents exist, laying out a plan or vision, as in Wami-Mbiki, they have clearly been prepared by consultants and do not appear to have local ownership. Moreover, there is little or no attempt to distribute such documents to villages and, if they are distributed, villages do not hold onto or use these documents. The knowledge gap between villagers, even many village council members, and AA leadership is substantial, in spite of the existence of village AA representatives.

Budgeting by the AAs is not realistic. It may involve an ideal projection of income, even in the face of existing realities (one investor paying out of four in Burunge) or an unrealistic figure of Tshs. 40 to 50 million in Ipole that is at least five times existing income, but well short of the Tshs. 300 million said by the AA to be required to perform all desired functions. In Wami-Mbiki the AA declared that the needed budget was Tshs. 15 million per month, because that was the amount given the AA by its previous donor. It was not based on planning or a realistic analysis of costs.

The evaluation team found that AAs technically had Boards of Trustees of four to seven members that were required as part of registering the CBO as an Authorized Association. According to the Biennial Status Report, Board members are nominated by the AA leadership and formally appointed by the Wildlife Director. The Board in theory is an organ of the AA that holds AA assets in trust and is a legal entity that can sue or be sued and borrow or lend on behalf of the AA. It is a non-executive organ composed of influential people from the villages making up the WMA. The evaluation team found that board members are not all from member villages. This is probably because board members are supposed to be influential enough to represent the needs and interests of the WMA up to the highest levels. The evaluation team encountered a board member only once in a meeting with the Ipole AA. Beyond this, board member identities and functions appeared rather vague. If their function is to promote WMA interests to important political and economic actors, they would not seem to be fulfilling this role.

Community-level perceptions and attitudes toward the governance of their AAs, while not outright negative, reveal some doubts about the effectiveness of this body and its officers. Half of respondents (50%) to the household survey felt that the AA did not act responsibly and fairly, while 46% felt that it did. Some 39% of households indicated that they did not know who was in charge of making decisions regarding the use of natural resources in the WMA. Only about one-quarter (24%) felt the AA was charged with these decisions. However, a large majority (78%) felt that village councils respected decisions by the AA regarding the use of village lands placed into the WMA.

The AA and the village councils

The concept and design of the WMA, at least in theory, transferred central governmental control over natural resources on village lands to a community-based organization (CBO) with clearly defined user rights to resources on these lands. While composed of various villages, each with its own local government council and officers, this new CBO is not simply a combination of local governmental entities or representatives, but rather an independent civil society organization with representatives elected by each village general assembly.

To maintain a clear separation between village government and CBO, these AA representatives could not be members of current village councils. Some instances of past overlap of positions were found by evaluators.

This lack of direct governance connection to democratically elected village councils has been criticized because of its tendency to set AAs apart from the village governments that they should answer to, in principle. That said AA representatives are chosen freely by the same general assemblies of all citizens that elect village councilors and approve village council decisions. The process of selection is in theory as democratic as election of local government leaders, but the team observed that the resulting organization tends to place itself above the village-level government. In theory, the AA is accountable to the village councils that form the WMA. The AA is responsible for policy and strategic decision making on behalf of and in consultation with village councils and village assemblies. The team observed a practice of requiring village councils to submit development plans to AAs for approval prior to distribution of benefit shares that would not seem to be part of their official attribution. This was observed by the evaluation team in Pawaga-Idodi and Ipole WMAs, but not in Burunge and Enduimet, where village councils were said to be free to use their WMA benefits as they chose.

Village councils generally felt that the AA should be more transparent in its operations, particularly in financial accounting, relations with investors, and village benefit sharing. Individual villagers tend to see the AA as something beyond their ken. In the case of one village in Enduimet (Olmolog), the whole WMA concept was considered to be something of a mystery by the villager focus group. In most villager focus groups, only a few respondents had more than cursory knowledge of what their AA was doing.

In spite of these feelings the attitude of village councilors toward AA officers and operations tends to be positive, and relations between councilors and village AA representatives do not appear strained or conflicting. In most villages, the ideal roles of AA representatives were basically understood by villagers, but it was clear that outside the village council little was known of the details of AA functioning. The survey revealed that while 59% of respondents knew who their village AA representatives were, the remaining 41% did not know or were unsure. The fact that four of 10 villagers did not know for sure who their AA representatives were, is indicative of governance issues surrounding communication and participation.

Villager awareness of the WMA

The evaluation team spent a great deal of time in focus groups with village councils and ordinary villagers in 15 villages. The household survey was carried out in most of the same villages. There is a high level of agreement between survey results and focus group responses that villager awareness and understanding of the structure and functioning of WMAs is minimal. This lack of awareness has a great deal to do with lack of communication between AA leaders and Council representatives and ordinary villagers.

Village council officers were clearly more aware of the original purposes and expected benefits of the WMAs than ordinary council members. They often did most of the talking during focus group discussions; many other councilors genuinely appeared not to know the details of what their leaders were presenting. Evaluation team efforts to pull out information from a majority of council members present were usually to no avail. However, there were always a few older councilors or villagers who managed to recall the origins and original purposes of forming their WMA.

Some findings of the household survey regarding respondent knowledge of the WMAs suggest that communication and participation are lacking. The vast majority of respondents (96%) did not know how much land their village gave to the WMA, and 96% also indicated their household had lost no land of its own. This could indicate that these facts were not communicated to villagers or, more likely, that the land that was put into the WMA was not considered important to most households (it may have been a protected area formerly or may not have been considered valuable for some other reason; of the WMAs visited by the team only Wami Mbiki was not formed from a protected area). Only 10% of respondents were aware that the WMA and the original CBO to administer it had their origins at least 10 years earlier in the communities

surveyed. While about two-thirds (66%) of household heads felt that the purpose of the WMA was conservation of wildlife, much smaller numbers were aware of other objectives. Some 27% recognized community participation and 18% the sharing of new benefits as purposes, but nearly a quarter (23%) of household heads indicated that they did not know what the purposes of the WMA were.

Governmental Involvement in AA Decision Making

The WMA approach represents a significant step forward in the devolution of wildlife-related decision making authority in Tanzania. However, there are issues related to government involvement in WMA decision making in all five of the WMAs visited by the evaluation team. In Ipole and Pawaga-Idodi serious delays in approving contracts with private sector partners have made it very difficult for the WMA and investors to move forward. In Wami Mbiki, by-laws for implementation of the land use plans required for WMA formation are being held up in one district and may even have been lost. In Pawaga-Idodi, the entire AA Council of Pawaga-Idodi was dismissed in 2011 by the District Commissioner, without following procedures laid out in regulations, without review by outside authorities, or other due process. In the formation of WMAs decisions regarding which villages to include were sometimes made for political reasons rather than through ecological or economic considerations. The best example of this is also in Pawaga-Idodi, where 13 villages were included in the WMA without contributing any land. This has now led to a serious quarrel over benefit sharing between the 8 land-donating villages and the 13 that gave none.

Inadequate Checks and Balances

Checks and balances are clearly needed to safeguard the independent operation of the AA in each WMA, while preventing abuses of responsibility and power that can harm local citizens. A good example of the latter is the potential for AA approval of fraudulent, inequitable, or insufficient contracts with investor companies in the WMA. The signing of a 25-year contract in Pawaga-Idodi or the rapid rezoning of formerly non-hunting to hunting land in the same WMA are cases where better definition and enforcement of roles and responsibilities might have prevented these apparent abuses of power.

Lack of Transparency and Accountability among WMA stakeholders

Probably the clearest issues in good governance at any level of organizational functioning are transparency and accuracy of information and accountability of actors and decisions to others. Recent studies of WMAs and the evaluation team's observations indicate that WMAs continue to face challenges of lack of transparency and accountability. Probably in part because of the fear of scandal and local-level corruption, the MNRT has maintained relatively tight control over the WMAs. This has slowly but surely loosened over the last decade; **the 2012 Regulations, by granting a much greater role to the AAs in choosing trophy hunting investors and a clearer share of revenues from hunting in WMAs, offer greater movement toward real power transfer to the WMAs.**

The core of WMA functioning is the generation of revenue from investors wishing to secure rights to hunt wildlife or to set up lodges and camps to host a range of tourist activities, from camping, hiking safaris, and photographic tours. There is a lack of transparency and accountability in the process of WMA income generation, from marketing to private sector, contract negotiation and acceptance, contract terms, payments, and flow of income to AAs and constituent villages. Villagers and even village councils do not know the details of investor contracts or payment terms, let alone when and what income will return to the WMA for distribution. This makes it difficult for them to be active participants in the governance of the WMAs.

The MNRT collects WMA revenues directly from investors and does not have a system for accounting to the WMAs how much is collected or informing them when benefits will be distributed. Most investors do not reveal to WMAs how much is paid to MNRT for WMA services. Most AAs, while they do report to constituent village councils on incomes, do not consistently account for AA operating expenses. This lack of transparency and accountability leads to mistrust between stakeholders over the potential (real or theoretical) misuse of WMA revenues and resources.

Lack of transparency is clearly linked to lack of willingness to share essential information, which in turn leads to suspicions of corruption. Whether intentional or not, such lack of clarity can easily breed fraud and corruption or the perception thereof. Financial records, documentation of various agreements, and investor contracts are all held close to the chest in the AAs. Burunge WMA is the only one of the five WMAs visited that made an effort to post its income for the last 10 years. Burunge also has the only private sector investor that makes public his payments to MNRT on behalf of the WMA. This small but significant step increases confidence in the leadership of the Burunge WMA.

Incomplete Devolution of Responsibilities to AAs

Some basic governance challenges stem from the paradigm shift away from central governmental ownership and complete control of land and natural resources. A true devolution of control of wildlife, particularly hunting blocks, to local communities requires substantial political will that is not shared by all actors within government for reasons having to do with old habits, vested interests and fears of diminished control and influence.

It should be recognized that **the AAs are functioning in a traditional political environment in which they are a relatively novice player.** With the backing of donors and the nascent AA Consortium (AAC), they are slowly strengthening their control over rights to attract and profit from investors interested in bringing hunters and tourists into these essentially protected areas. AAs now have the right to engage in contracts with hunting companies as well as those selling non-consumptive services, such as camping, hiking, and photographic safaris to tourists. That said, when queried in focus groups, villagers felt that the central government still owned and ultimately controlled all wildlife and other natural resources on village lands within WMAs. Virtually no one outside the AA representatives knew the meaning of “user rights” to wildlife.

The 2012 Regulations stipulate that once a WMA is approved and user rights have been given, district government and the Wildlife Director continue to play roles in the “process of negotiation and the signing of agreements” between AAs and potential investors. While one can understand that there is a role for the government to play in ensuring agreements are fair to all parties and take wildlife conservation objectives into account, the criteria for involvement by government are not clearly defined. This leads to confusion on all sides over what exactly the government is reviewing when approving a given investor agreement. It also becomes very difficult for WMAs and private sector partners to plan ahead when approvals take so long and go well beyond time limits dictated by the regulations.

Unclear District Governmental Roles and Attributions

There is no defined system of checks and balances to counter negligence, incompetence or abuses of power within the WMA system. In Wami-Mbiki, where land-use by-laws were lost by Bagamayo district, in Pawaga-Idodi, where the District Commissioner dismissed the entire AA Council, in Burunge where village councils felt pressured by district officials to join the WMA, in Ipole where the District Commissioner saw AA social service activities as part of district development efforts, the roles, responsibilities, and appropriate interaction between district officials, local MPs, and AA leaders remains unclear.

The key advisory and technical support officers at the district level potentially can offer much needed capacity to the AAs in governance and technical issues, such as anti-poaching activities and wildlife monitoring. These officers, however, are transferred regularly and frequently. This was mentioned by district officials in several places as a weakness in support to WMAs. Of course, the greatest weakness is lack of a vehicle and budget to assist AAs in their home areas, which can be quite some distance from the district capital over poor roads (e.g., Pawaga-Idodi, Ipole, and Enduimet WMAs).

The District Game Officer (DGO) is acknowledged as the point person for contact with the WMA (or WMAs) in his/her district and “takes on an advisory and facilitator role in the establishment of WMAs, and in their day to day operations” (Tarimo, 2011). What prerogatives and responsibilities these DGO roles involve are not clear. Central government is charged with providing some funding to the DGO for these

roles, said to be 15% of the income share received by the MNRT. However, this funding usually goes to a district's general fund and tends to be used for the priority sectors of education and health (Tarimo, 2011).

DGOs and other natural resource officers interviewed by the evaluation team did not always know what they had received from the Ministry, but whatever it was it did not provide the basic resources (vehicles and equipment) to carry out anti-poaching activities. One issue does seem clear, as the Round Table Africa paper points out: "Central government is receiving significant amounts of money from business investments in WMAs. The problem therefore lies in the distribution and use of funds obtained by government from WMAs" (Tarimo, 2011).

The central government may be justified in retaining a share of investor payments, if a substantial portion of these funds flows to District Councils for use in advising and auditing AAs. Considering the overall value to the state of conserving wildlife and promoting local-level revenue generation, the central government is making very little investment in WMAs. It is instead relying on donors to fund and provide technical assistance to this new category of protected area. However, donor organizations are not interested in defraying recurrent costs once WMAs have been created, and neither district nor central government is currently filling the void.

The District Natural Resources Advisory Board (DNRAB) is in theory an important mechanism of assistance to AAs. It is mandated to act as a forum for arbitration and resolution of conflict, provide technical advice to the AAs, provide legal advice in contractual undertakings of AAs, scrutinize proposed hunting quotas from the AA and forward them to the Director of Wildlife with recommendations, appraise the district council committees, and advise the District Councils on investment in the WMAs. Although considered a critical body for the success of the WMAs, a field survey undertaken during the Biennial Status Review in 2012 found the relationship between AA leaderships and DNRABs to be weak and in need of serious strengthening to be effective (EERC, 2013).

One governance issue in which the DNRAB has played a role is the dispute in Pawaga-Idodi between eight villages that gave land to form the WMA and 13 that did not. Most of those that did not donate land are from Pawaga Division, resulting in a serious rift between this division and Idodi Division. It appears that with the assistance of the DNRAB, the AA reached an agreement among villages to divide 70% of the benefits derived from investors among the eight land-giving villages and 30 % among the 13 that did not provide village lands in WMA formation. An amended constitution to this and other ends is in the process of approval by the central government. Nevertheless, the process is being held up because leaders of some of the village councils giving land are holding out for 75% of the benefits and refusing to send in required documents to complete the amendment process. In the meantime, no benefits have been paid to villages by Pawaga-Idodi for the last two years, and at least two investors have law suits and injunctions against the AA. This situation has now virtually paralyzed Pawaga-Idodi, yet in the midst of all this, it still struggles to obtain Ministry approval of a contract with its preferred investor.

Co-optation by District Government

District governments still seem to consider village projects financed by WMA proceeds as part of overall district development projects. The evaluation team found that there is a citizen contribution to district projects that can be quite substantial. When WMA income is distributed to villages, in many cases it serves to reduce levies for district development projects. For example, a posted 2010-2011 development plan for Babati district showed the following contributions for two villages visited by the evaluators:

Table 2: Contributions toward Local Development Projects in Babati District

Village	District Share	Central Government Share	Citizens' Contributions	Total
Minjingu	535,910	2,919,798	8,300,000 (71%)	11,755,708

Vilima Vitatu	510,610	2,781,956	75,544,000 (96%)	78,836,566
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Citizens' contributions to the district development plan vary from 71% to 96% in these two villages, and the much larger sum required of citizens in Vilima Vitatu village probably in part reflects the benefits it received from Burunge WMA in 2010 (Tshs. 16 million) and 2011 (Tshs. 19 million). On the other hand, Minjingu village has not been accepting AA income, maintaining that it never joined the WMA. This may in part explain its much smaller citizen levy and share of the total. This coopting of these activities is not necessarily a negative. In fact it is really the sign that WMAs are actually contributing to local development objectives. The key issue is that these benefits do not necessarily add anything to the investments made, but rather the districts view these villages as places where they do not have to bring other funds, so there may actually be little net benefit to villages. The present evaluation was unable to fully answer this question and so it needs further research.

The Biennial Status Report indicates that the Wildlife Division also tends to consider the AAs and their activities as part of the districts' development projects, an understandable reflex given the substantial financial and technical support provided by facilitating organizations, including the cash-for-work roads and structures built in four of the five WMAs visited by evaluators. However, the Wildlife Division often bypassed district government in the design, planning, and establishment of donor funded projects within WMAs. In general, District Councils have experienced a low level of involvement in WMA matters, with important decisions being made by the central government through the Wildlife Division.

Ability to withdraw from a WMA

A final point on governance concerns the apparent lack of any mechanism or process for a village to leave a WMA. It is clear that this has been avoided because of the complexity involved if a village holding a large or otherwise important portion of a WMA decided to leave. This is even more complicated if the village received this land through the degazettement of a protected area. Moving a game-controlled area directly into WMA status occurred in four of the five WMAs visited in this evaluation (all but Wami-Mbiki). A village exit from its WMA could call into question the ecological and economic viability of the WMA and lead to a potential domino effect of other village withdrawal. The team repeatedly heard from villages that they had been assured they could always leave the WMA should they so prefer. However, there is nothing in the 2012 regulations or in the AA constitutions reviewed that specify how this might happen.

Economic Challenges

Do villagers still think the WMAs are a good idea?

The vast majority of villagers indicate that they greeted the creation of their WMA with interest or enthusiasm as promising serious economic benefits. **Most still perceive the WMA positively, but they are becoming impatient with the lack of individual and even community social benefits.** Moreover, in some places human-wildlife conflicts have increased and lost livestock and crops are inadequately compensated, if they are compensated at all. None of the AAs compensate villagers for these damages. In this sense, the villagers are paying the costs of protecting wildlife, while receiving few or any benefits in return on a household level. These complaints were voiced most in the villages visited in Pawaga-Idodi and Enduimet. Nevertheless, the clear majority of villagers (81%) thought joining the WMA was a good idea and still favor giving the WMA and its AA more time to produce the benefits they have been expecting. This perhaps surprising point may be related to the data from the survey suggesting that most households (96%) do not feel they lost any land to the creation of the WMA. If these respondents truly feel they have not lost anything by participating then the decision to hold on and wait for benefits is clearer since there is probably no clear benefit to leaving the WMA.

This is perhaps reinforced or confirmed by contrasting it with the situation of the 3 villages visited by the team that would like to leave their respective WMAs (Vilima Vitatu and Minjingu in Burunge and Sinya in

Enduimet). Sentiment in each of these villages was clearly and consistently negative at both Village Council and general villager level. Each of these villages however had lucrative agreements with private sector investors that have been diluted by participation in the WMA and each village sees themselves returning to these more beneficial arrangements after leaving the WMA.

WMA constituents are generally willing to give the process more time, but it is clear that the benefits will need to eventually outweigh the costs of living with wildlife and setting aside large tracts of land for conservation. It is critical that the next phase of WMA support and evolution deal with the critical economic challenges identified by this evaluation.

Costs of establishing and running WMAs are too high

A review of the literature on WMAs and observations in the field indicate that costs required to establish and operate WMAs are high, and that most WMAs are not yet financially self-sustaining. The establishment of WMAs requires the preparation of land use plans, resource management zone plans (or general management plans) and village by-laws, all of which involve significant costs in their preparation. Costs for establishing a WMA are estimated at between US\$250,000 - \$300,000. In all WMAs these costs are well beyond community affordability and have been covered by donor organizations, including USAID, Danida, and GIZ.

Authorized Associations receive earnings from activities within the WMA, with the main source of income being from photographic or hunting tourism activities. However, most WMAs are not yet able to earn enough from these activities to cover their basic costs. These are estimated at between \$60,000 and \$100,000 per year for VGS and patrol work alone. Adding AA administration costs brings total operational costs to between \$150,000 and \$250,000. These are high figures considering that most WMAs are currently earning from \$2,000 to \$90,000 annually, with the exception of Burunge and Ikona WMAs which earn \$290,000 and \$450,000, respectively. Burunge and Ikona generate higher income due to their location near national parks; Burunge is located in the wildlife corridor between Tarangire and Manyara National Parks, while Ikona borders Serengeti National Park. These two WMAs offer attractive locations for hotel and lodge investments, and earnings to the WMAs come from land rent and bed-night fees from tourists visiting the Parks. In 2011-2012, Ipole WMA was not able to raise even a tenth of their required operational budget, with earnings of US\$13,130, and operational costs of US\$187,000. Out of earnings to Ipole in 2011-2012 of Tshs. 21,009,290 (US\$ 13,130) the AA retained 55%, equivalent to Tshs. 11,555,110 (US\$ 7,222). Consequently, their wildlife protection work suffered - only six VGS could be hired to do patrols at a given time due to low levels of income to the AA (to cover an area of 250,000ha!). The VGS were paid a very low allowance of Tshs. 49,000 (\$30) for 14 days of work. In Wami-Mbiki WMA little or no patrolling was occurring for total lack of funding, since the WMA has not yet been able to secure one contract with a tourism investor.

The evaluators observed that WMAs which are not able to cover their operational costs are often brought to a standstill in terms of patrolling and conservation work, since no clear sources of external support exist. A huge drain on WMA incomes is that they essentially pay a 35% tax on their revenues (not profits) from non-consumptive tourism. This is a large chunk of their earnings that does not return in the form of useful services or other investment by government. The revenue sharing structures for hunting revenues are better in some ways but miss the point of trying to incentivize communities to conserve wildlife. The 75% share for hunting block fees is definitely an incentive for WMAs to put land into hunting. However, the share those communities get from the permit fees to hunt individual animals is only 15%. Since this is where much of the income lies, it would seem the approach is missing an opportunity to show communities how valuable an individual animal can be. Resident hunting fees are also poorly distributed, with 60% going to District Councils and 40% to WMAs (cf. 2012 WMA Regulations). There is clearly room to improve on benefit sharing mechanisms and formulas for both hunting and non-consumptive tourism.

Another cost to communities comes from increased human-wildlife conflict. Nearly half (48%) of respondents said crop destruction by wild animals has been an outcome of the creation of WMAs. Residents of Malinzanga village in Pawaga-Idodi WMA reported that 70 acres of crops had been damaged by elephants

so far this year, leading to losses of Tshs. 105 million (US\$ 65,625).² This alone exceeded total earnings to the WMA in 2011-2012 of Tshs. 82.04 million (US\$ 51,275). Government has offered compensation to very few individuals of Tshs. 100,000 (US\$ 62.5) per acre, which is well below the value of the losses.

It could be argued that these losses might well have occurred with or without the presence of the WMA but the fact is that these villages are now in the business of promoting wildlife and benefiting from it collectively; it follows that the costs related to wildlife conflicts should also be shared collectively if WMAs are to be successful for the long term. Government should also have a role to play in defraying these costs obviously.

Government does not contribute to WMA operational costs

Costs for operating WMAs are currently being met solely by the AAs responsible for managing them, with occasional support from donor organizations, e.g., some support towards patrol work by Village Game Scouts (VGS) and toward contract negotiations with investors by WWF (USAID) in 2011-2012 in Wami Mbiki WMA. This is despite benefits deriving from WMAs that are shared by a number of stakeholders, including government at district level, which receives 15% of earnings, and the Wildlife Division, which receives 20% of earnings to each WMA. Government incentive to support WMAs also lies in the fact that they contribute significantly to maintaining wildlife areas, which directly benefits the national government through improved habitats for wildlife in national parks. These parks are an important source of revenue to government - Tshs. 10.9 billion (US\$ 68.1 million) in 2011-2012 (Daily News, 2013)

Lack of diversified (and sustainable) revenue streams into WMAs

Most WMAs are relying on only one or two income streams, mostly photographic or hunting tourism. The risk in this is that the WMA could collapse, should these sources disappear for a significant period of time, something that is not unheard of in the tourism industry. This is the current status of Wami- Mbiki, which has never had an important investor and relied for over ten years on quite generous donor support. Once donor support ended in 2011, Wami-Mbiki WMA essentially ceased to exist, except on paper. Unless another donor or an investor can be found soon, all the wildlife increase obtained over the previous decade will likely be lost.

There are opportunities in WMAs, however, to explore and tap into other sources of income, especially those deriving from local resource uses. In Ipole WMA livestock keepers who were found to be grazing illegally in the WMA were willing to pay up to Tshs. 12 million (US\$ 7,500) to have access to grazing areas within the WMA. An activity that could be managed to have minimal impacts on wildlife and tourism. Wami Mbiki WMA has good potential for timber harvesting, but this resource is not yet being exploited, since the AA has not been issued user rights for this. Rights to timber are currently under district governmental administration and WMAs have not been able to gain access to these resources.

Other possible sources of income from the WMAs are sustainable fuelwood harvesting and charcoal production, harvesting of building materials, timber harvesting, and fishing. The household survey conducted for this evaluation revealed that about 97% of households use firewood for cooking, while 31% use charcoal. Some 75% of households harvest wooden poles for building once a year. If such local uses were integrated into the WMAs' business plans, these activities could be monitored to minimize negative environmental impact, while contributing to making WMAs economically viable.

Poor business planning and marketing of WMAs

Interviews with AA Councils revealed a very limited level of business planning in WMAs. None of the WMAs visited had had a thorough assessment of business opportunities prior to the formation of the WMA. It was simply assumed that tourism businesses would invest in the WMAs. The case of Wami-Mbiki WMA

² The villagers there estimated an acre of maize to have the potential to yield 15 bags of maize worth Tshs. 1,500,000 (US\$ 937.5) in total.

illustrates consequences that arise from poor business planning, where to date there is no investor and no earnings to the WMA. An investor who attempted to start a camp in the WMA a few years back reportedly spent US\$300,000 setting up camp infrastructure, but was then only offered a 3-year contract, a term too short to recover the investment. The investor ultimately left altogether because of the complexity of operating in the WMA made it impossible to sustain a profitable business. The AA's quest for new investors has so far yielded no results, partly because the investment fee set at Tshs. 45 million (US\$ 28,125) annually is too high when compared to the investment needed to develop photographic tourism in the area.

It was also noted during this evaluation that there is a need to put more effort into marketing WMAs as a destination. There is an opportunity to build on the AAC website (<http://www.twma.co.tz/>) and other materials produced to support private sector investors to figure out ways to better develop and market the opportunities available. WMAs could offer unique tourism experiences in Tanzania that are unlike those offered in Parks (deeper cultural tourism, hiking, camping, and canoeing).

Benefits to communities are low and are not perceived to be adequate at the household level

All focus groups could identify social services and infrastructure built entirely or partially from AA payments to their village councils. Among those 76% of survey respondents aware of a WMA-financed project in their village, 73% of these named educational infrastructure (especially repair, renovation, or construction of primary school classrooms or teachers' houses), 24% indicated a health post or clinic, 23% mentioned repair or construction of village administrative structures, 21% were aware of the payment of school fees (for orphaned or poor children in some cases to send them to secondary schools), and 11% were aware of repair or construction of community water systems.

There was, in fact, a considerable uniformity in the social projects approved, which tended to be related to education, health, or water supply. Generally speaking, AA-distributed money could only contribute to part of the cost of these structures or services. It was often perceived by local citizens as alleviating the burden of district financial levies on local populations for development activities.

In this way the WMAs may be making a more direct contribution to households than previously thought, since social project funding may reduce out-of-pocket expenditures by village households for these types of development projects. This may explain some of the increase in the value of household assets in the comparison data and villager focus groups often mentioned that this was the case, but the evaluation team found this benefit exceedingly hard to quantify. Future assessments should look specifically at this issue. A key question remains whether district governments regard WMA contributions as another source of funding for their development plans and so shift district funds away from villages with WMA sources of benefits to those without. The team suspects from our observations that this may be the case, thus limiting overall WMA benefit to communities and rather enhancing benefits to government.

Focus group discussants generally mentioned conservation of wildlife and provision of social service infrastructure as the most obvious benefits deriving from the WMA. They did not usually recognize benefits for individuals and families. In like manner, only 37% of respondents to the household survey knew of individuals who had benefited from income generated by the WMA, while 63% did not or were unsure.

It is generally accepted in the CBNRM sector that inadequate direct benefits to households in communities pose a risk of reducing incentives to conserve wildlife and their habitats by villagers. It is important that the WMAs enhance opportunities for households to benefit directly and significantly from WMA activities.

Poor linkage with village based enterprises

It was observed that there are very few linkages established between the WMA and local businesses. In Ipole WMA there has been some effort towards this end, where USAID has funded, through an agreement with WWF, the construction of facilities to assist beekeepers and a women's fruit processing group located in member villages. However, this support has not yet yielded results, as it has not been significant and

comprehensive enough to give a sufficient push to local entrepreneurs to earn substantial income from these activities. The beekeepers still require access to modern equipment and extended training to enable them to reach ideal production levels. The women's fruit processors require assistance in finding markets and developing and branding suitable products for these markets.

There is also an opportunity to channel AA or village earnings from the WMA to entrepreneur groups in the villages. A women's credit and savings group in Olmolog (Enduimet) wanted to see some earnings from the WMA channeled to their microfinance activity, which would provide a means for them to experience direct benefits from conservation of wildlife.

Conservation Challenges

What are people's attitudes about wildlife and conservation?

Village council and villager focus groups almost always expressed the opinion that conserving wildlife for future generations was a value in itself. They almost always responded that wildlife conservation was a key purpose of WMA creation. Some villages, such as Minjingu in Burunge and Ilole Mpya in Ipole, claim to have possessed protected forest or wildlife zones prior to the establishment of their WMA.

While villagers generally maintained that conserving wildlife is important, they also complained of the lack of protection in their WMA against poachers, herders, and in Maweni village in Burunge even against invasion by agriculturalists from outside the village. At the same time, village councilors and ordinary villagers almost always agreed that wildlife was increasing inside the WMAs, leading to crop and livestock losses in some places more than in others. They were quite happy to see wildlife increasing, if that did not mean household economic losses. No one ever expressed a truly negative attitude toward wildlife, except when they personally suffered losses. Loss of human life was also occasionally referred to in focus group discussions with villagers. In one case (Olmolog village in Enduimet), respondents indicated that government response was quicker when an elephant was killed than when a villager lost his life from wildlife. Moreover, in Ngereiyani village (Enduimet) villagers indicated that if a lion killed a cow, it would be eliminated, even if it went back inside the WMA.

A strong majority (81%) of survey respondents felt that the WMA had a positive impact on wildlife numbers and condition by increasing its abundance. Another 81% indicated that wildlife habitat destruction had been stopped, and 71% felt that some species were coming back to the area.

Inadequate protection of wildlife resources

All of the WMAs visited had VGS systems to protect wildlife resources; in general the evaluation team found the VGS to be energetic about their work and well informed about the WMA. However, of the five WMAs visited, only Enduimet had a fully functional and effective system in place. This is largely being funded externally, by the Honeyguide Foundation, an independently funded NGO (i.e. not funded through USAID). The Enduimet VGS are well organized, reasonably equipped, paid competitively, and have professional management. It was made clear to the evaluation team, however, that this situation was only possible with significant donor support. Burunge WMA has a fairly effective VGS team, but it is underpaid, not well equipped, and also dependent on some donor input (also Honeyguide Foundation). Wami-Mbiki's VGS are all but disbanded, with only six remaining active, with no working vehicles, and only occasional foot patrols near their headquarters inside the WMA. Both Ipole and Pawaga-Idodi WMAs have very low functioning VGS with no vehicles.

VGS training levels vary widely from a few weeks to several months spent at training centers. Few VGS have the certifications and approvals necessary to carry firearms, an important capacity when poachers are so well armed and organized. Equipment is also lacking for most VGS in the WMAs visited from basic uniforms to firearms and vehicles.

Inadequate monitoring of wildlife resources in WMAs

In most of the WMAs visited, there is no effective monitoring of wildlife indicators, such as wildlife numbers (increase or decrease), wildlife movements, or even poaching incidence. While mainly resulting from a lack of resources and to some extent perhaps training, this situation is also due to faulty organization since in some places the VGS do seem to collect and record information but that information is not managed, analyzed, or used for any purpose.

Government does have a role to play in monitoring wildlife numbers. The Tanzania Wildlife Research Institute (TAWIRI) collects information on changes in wildlife numbers and movement patterns, but there has been criticism of how this information is used, especially in relation to issuing hunting quotas. There does not appear to be a clear link between information collected by TAWIRI and decisions on what quotas are issued for different species. Although it would make sense for this function to fall to the Community Based Conservation unit at MNRT, there does not seem to be a specific entity that deals with monitoring wildlife in WMAs.

Poaching and illegal off take of other natural resources

While reasonably functional VGS systems seem to be able to deal with most poaching issues, the funding challenges faced by WMAs mean that protection levels are inconsistent and, with the exception of Enduimet WMA, poaching has been reported as a major and seriously increasing challenge to the WMAs visited. Elephant poaching for ivory has been reported in Pawaga-Idodi; during this evaluation, it appears that six elephants were poached within the WMA.³ During the interview with VGS at Pawaga-Idodi, the scouts admitted that dealing with poachers was very risky without sufficient personnel, vehicles, and firearms. In Wami-Mbiki, communities are very concerned about the current trend of increasing poaching and livestock grazing inside the WMA. They fear that wildlife numbers will drop in the near future, if the current rate of poaching is not controlled. This will make their WMA increasingly unlikely to secure an investor.

Comparison data suggest that the percentage of households cooking with charcoal has increased in 3 out of the 4 WMAs for which data are available. This likely indicates increased pressures on woodlands and has important implications for the types of economic activities promoted by the WMA as well as on management decisions for the collection of firewood.

Habitat fragmentation and blockage of migratory corridors

Some WMAs were designed to be or to reinforce wildlife corridors with the objective of maintaining ecological and genetic connectivity between protected areas. Without tracking changing land use within the WMAs, it is difficult to ensure that these corridors will function over the long term. In Burunge WMA, for example, the Kwakuchinja corridor is highly threatened by human settlement and agricultural expansion.

Challenges in the Process of Establishing WMAs

At the end of the first WMA pilot phase in August 2006, at least two evaluations and a related paper were published that identified many of the challenges observed by the current evaluation team. It is important that the next phase of WMA support take these challenges into account and that new approaches to establishing WMAs are piloted.

The 12-step establishment process is lengthy and costly

As noted in a paper in 2007 based on the 2006 status report, the creation of WMAs involves extensive investment of time and resources (Nelson, 2007) funded through donor assistance. We provide an overview

³ Country-wide reports indicate that 67 elephants were killed for ivory every day during 2012, which represents a total loss of 23,000 animals, or 21% of the national herd (The Citizen, January 2013).

of the 12-step process of forming a WMA in Annex J. In practice, this facilitation of the establishment process has involved extensive financial and technical assistance from donor funding and implementing organizations. The cost and relative complexity of this process, although varying between WMAs, has certainly been beyond the reach of the constituent communities. Although there is no doubt community members have been involved by their facilitators, this long period of reliance on facilitators has created a dependency syndrome that has persisted to the present.

When asked about land-use plans, all village councils and most villagers indicate they have one, but most had one even before WMA establishment. It is likely that previous plans, where they existed, served as a basis for the WMA-required plan. However, the latter must include a plan for the WMA along with other village lands. AWF indicates the cost of these LUPs to be about \$5,000 per village. When applied to the scale of Wami-Mbiki (24 villages) and Pawaga-Idodi (21 villages), these costs can reach from \$105,000 to \$120,000. Facilitators intended these LUPs to provide villages with a strong plan for future development and a way of securing land tenure. In fact the LUPs the team reviewed are well thought out and provide excellent information and a vision for multiple uses of village lands. Unfortunately, most villagers indicated that these plans are not being followed, although they were aware that specific zones for human settlement, livestock grazing, agriculture, and the WMA existed in theory. The issue seems to be one of ownership and village agency to implement their LUPs.

The most rapid of the original 14 WMAs to reach registered AA status required over three years of facilitation. More recently the registration process has become faster with recent WMAs achieving full status in 1 to 1.5 years. It does not seem that the costs of registration are coming down, however, and this may be due to continued donor funding and NGO implementation of these activities keeping costs inflated. There is a need to experiment with other means of financing WMA establishment.

Finally, one other challenge is present in the cost structure of setting up and supporting a WMA. The high cost of facilitation may be distorting other aspects of the process. Thus, donor funding of AA operations, including provision of sitting fees or meeting allowances (a systemic problem in Tanzania that is not unique to WMAs), results in AA and village council members accepting unsustainable cost structures. Consequently, it is not just that this generous facilitation approach may be fostering dependency and undermining local agency, it may also be conditioning the AAs to unrealistic expenditure patterns. This would explain the unrealistic budgets presented by some of the WMAs.

Challenges to understanding the impacts of WMAs on constituent villages.

Much like the situation with wildlife monitoring there is no consistent monitoring of socio-economic or other indicators that would provide meaningful information about the impacts the WMAs are having on their constituent villages. Monitoring tools have been developed in the “Indicators and Monitoring Plans for Wildlife Management Areas in Tanzania” (2004). However the team found no evidence that these tools are being used by WMAs. This is not surprising given that most centrally developed monitoring plans that require grass roots participation to function are problematic at best when it comes to implementation. The issue is not one of a lack of good indicators (there are many to choose from) it is an issue of participation and ownership by those who are expected to collect, analyze and use the data. In this case the AAs themselves need to understand and buy in to the importance of monitoring and better understanding the impacts of their efforts as a tool for improving management.

Challenges to gender and disadvantaged groups.

When undertaking CBNRM there is a need to understand the role of and actively engage with disadvantaged groups. This is not simply out of a desire for fairness but because different social groups interact with and impact natural resources in different ways. Women and youth of both sexes were present in all village council and villager focus group discussions, although they tended to have less awareness of the WMA and of issues pertaining to it than did older men. Most of the women in these groups were less comfortable speaking than men, especially when answering questions about their own rights, roles, and involvement in WMAs. Although

there was little evidence of active youth involvement, the evaluation team found women were involved to a limited extent in all the AAs visited in a variety of roles including AA officers and even a couple of VGS. In only one case (Olmolog village in Enduimet) did women indicate that they felt left out of WMA activities and benefits, expressing the need for greater inclusion in environmental awareness activities and for a WMA contribution to their microfinance activity.

The design of WMAs theoretically calls for the involvement of men and women, as well as youth. Laws and policies governing WMAs sometimes do include aspects of gender mainstreaming. WMA Regulations call for the establishment of the District Natural Resources Advisory Body with gender representation: “The composition of the District Natural Resource Advisory Body shall observe gender representation and mainstreaming.” However, the regulations do not provide guidelines on representation ratios or what this entails in practice.

The 2003 “Guidelines for the Designation and Management of WMAs” also pays some attention to gender mainstreaming in the chapter on cross-cutting issues, where it is stated that all decisions concerning the management of WMAs will take into consideration the sex, physical disability, and age of those affected by these decisions. The text goes on to offer the following guidance: resource management and decision making at all levels in a WMA should be “gender mainstreamed;” all activities in a WMA will be consistent with “relevant policies and regulations on gender;” during WMA creation efforts will be made to build the capacity of women in the AA to enable them to take part in effective WMA management; all WMA committees are to observe “indiscriminate and fair gender representation;” and “gender sensitive provisions” in the Village Land Act (1999). The Village Land Act states that in each village a committee overseeing land issues should have representation of at least three women.

The very recent Draft WMA Biennial Status Report (2013) provided some specific data for 4 of the WMAs visited by the evaluation team in the section entitled “Gender Equity in Authorized Associations.” In Ipole 4 out of 12 WMA members are women (33%), in Wami Mbiki 11 out of 44 are women (25%), in Enduimet 8 out of 27 (30%) and in Pawaga-Idodi 6 out of 42 (14%). For the 4 AAs combined about 23% of the members are women. Given that wildlife conservation is a generally male dominated sector this level of female representation in the WMAs while still well short of equal is a definite step in the right direction. That said, gender mainstreaming in CBNRM is about more than just representation in committees.

Women have certainly been included in all activities, particularly in local community development projects such as the fruit processing (all women) and honey production groups promoted in Ipole by Africare. However there have been no gender (including disadvantaged groups) impact analyses conducted, or at least none were made available to the evaluation team. There have been business plans and economic feasibility studies conducted in some WMAs, as in Wami-Mbiki, but these have not dealt with gender or youth issues, assuming that poverty reduction for all will be an inevitable outcome flowing down to local populations from outside investments. Gender audits or analyses of the roles of disadvantaged groups are needed so that differential impacts and other considerations can be taken into account when implementing activities.

As monitoring systems are developed it should be noted that there is no gender disaggregation of data in the 2004 “Indicators and Monitoring Plans for Wildlife Management Areas in Tanzania.” Even among the 60 indicators of the Village Level Monitoring Plan, there is no attention to sex, physical disability, or age. Moreover, there is no disaggregation by sex in the Village Level Logframe contained in the same document, even in the sections on economic and social benefits. More attention is needed to gender issues.

5.0 CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

This final section of the review provides conclusions based on the findings and analysis presented and in light of the historic evolution of WMAs in Tanzania and relevant experiences with CBNRM elsewhere in eastern and southern Africa. The conclusions are matched with recommendations for USAID to take specific actions or address specific issues in order to provide further support for WMAs in the future.

This review has found that WMAs in Tanzania are presently at a key inflection point in their evolution, with a number of possible future pathways of development. Considerable progress has been made during the past decade in terms of creating a basic legal and institutional framework for WMAs; supporting communities to establish the basic management structures and land use patterns required to form and oversee WMAs; and building broad support for WMAs as a key component of both conservation and natural resource-related development policies and approaches in Tanzania. During the past five years, after the initial phase of WMA establishment, WMAs have made significant progress in terms of generating revenue from tourism and hunting. Significant progress has also been made through recent (2012) policy and regulatory changes that grant WMAs more control over tourist hunting concessions and a clearer proportion of revenue from those wildlife utilization activities.

Despite this significant progress, major challenges remain, particularly in the economic and governance realms. The management capacity of AAs is limited and it is not clear if this is being improved in a concerted manner; transparency and accountability at the local scale is poor. Equally significant constraints remain in the realm of national policy and governance; of particular concern is the way revenues generated from WMAs are collected by central government, which impedes accountability and transparency at the local scale and dilutes the crucial link between wildlife resources in WMAs and local communities' understanding of benefits realized. Few WMAs are close to being financially self-sustaining, many opportunities with respect to enterprise development, value chains, and integration of multiple natural resource benefits within WMAs exist but have not been sufficiently explored or capitalized on. New approaches to organizational development of AAs, enterprise development and private sector engagement in WMAs, and larger-scale wildlife sector governance issues will be an important element of continuing support to WMAs, and create numerous opportunities for future support to be designed in a more strategic way. Our recommendations highlight these opportunities and suggest specific steps for developing them. To control the length of the present report we have reproduced the recommendations section in Annex C with more details on specific actions that can be taken to implement the recommendations.

POLICY & GOVERNANCE

Conclusions and recommendations around policy and governance issues are divided into two key areas: local governance, focusing on the capacity and performance of the AAs as the key WMA management and governance body; and macro-governance, which focuses on national policy and governance issues.

Local Governance

Local governance is fundamental to the delivery of WMAs on all of their social, institutional, and conservation objectives. If local governance is weak or performs at a low level, financial benefits may be lost due to malpractices, community well-being will not improve, conflicts will be more frequent, and overall

community support for the WMA is likely to erode. In other words, the entire WMA enterprise is premised on the ability of the AAs to effectively manage the WMAs, manage and distribute revenues generated by the WMAs, communicate effectively about management decisions and benefits obtained, and respond to wider community concerns. Accountability of the AAs to their constituents in the WMA member villages is crucial; as noted with CBNRM efforts throughout the region, where there is little local accountability in natural resource governance institutions, community support for natural resource conservation and management efforts may dissipate. **A major conclusion of this review is that at present the management and governance capacity of AAs remains low. Serious performance deficiencies exist and represent one of the most important current threats to existing WMAs.**

Strengthening the capacity and performance of WMA AAs

A major priority for supporting and strengthening WMAs lies in improving WMA governance by strengthening the capacity of the AAs.

- ❖ **Support the design and implementation of a comprehensive organizational capacity development (OCD) program for WMAs that should be incorporated into the overall WMA support program.** (See more details in Annex C)

Transforming local awareness in WMAs for enhanced accountability

A key part of improving the governance of the WMAs will be to help them improve their accountability to their constituents. The overall accountability of AAs would be much improved if they did a better job of awareness raising, improving the availability of information and promoting greater participation at the village level. This would result in a greater understanding of WMAs within their broader local constituency—namely the member Village Assemblies. Community members living in WMAs need to have a clear understanding of WMA functions and operations, and access to sufficient information, if they are to play their role in holding the AAs accountable, and accurately perceive and make appropriate decisions about benefits from WMAs. Much of the focus thus far in the WMA process has been on WMA establishment and where training has been provided it has often focused on the AAs technical functions like the VGS.

- ❖ **Support AAs to carry out continuous awareness and communications programs that enhance transparency and encourage villagers to hold AA leadership accountable for the performance of the WMA** (see more on this below in Design and Facilitation and in Annex C).

Macro-Governance

Shifts in power and authority that grant local communities clear rights over natural resources are a foundation of any CBNRM program. Often such shifts in power are challenging and may be long-term processes of institutional negotiation, as has taken place over the past two decades in Tanzania. WMAs represent the gradual devolution of authority over wildlife, and, crucially, the revenues that wildlife generates through tourism and hunting, from the MNRT to the local scale. WMAs now have a broad political constituency, including parliamentary support, and clear basis in Tanzanian law and policy. The 2012 WMA Regulations took additional critical steps towards further devolution of authority. Despite this progress, devolution is incomplete (see above examples of delays in approvals, government interference in WMA affairs, etc.), and key policies or procedures undermine the viability of WMAs from both a governance and economic perspective.

Addressing wildlife sector governance, structural and economic issues

Given the importance of issues such as cross-sector governance, finances and revenue distribution, economic diversification, and developing a more integrated approach to CBNRM, it is important to provide support to WMAs in a manner that addresses a wider suite of natural resource governance and development issues in Tanzania. For example, many of the most important governance issues affecting WMAs now and over the past decade involve much wider governance, structural and financial management issues in the wildlife sector, including the way tourist hunting is governed. This has been widely noted and analyzed by insiders and outsiders during the past decade (see e.g. Baldus and Cauldwell, 2004; Nelson and Blomley, 2010).

Strengthening key governance, policy, and economic issues for WMAs will require more effective strategies to engage with and facilitate change in this wider realm of wildlife management and governance, and more collaboration amongst donors, government agencies, and civil society to develop more effective integrated approaches to CBNRM, which cannot arise solely through a focus on WMAs or even solely on the wildlife sector.

- ❖ **More engagement on cross-sectoral natural resource management, policy, and governance issues with the Development Partners Group- Environment (DPG-E) and the government.**
(See more detail in Annex C)

Transitioning towards the integration of community-based wildlife management and forestry

The current sectoral focus of WMAs is constraining an overall integrated approach to sustainable land and natural resource management; a more integrated approach to a CBNRM framework is needed, particularly between the wildlife and forestry sectors. This has been identified in the literature repeatedly and should be a long term GoT and donor goal. A recurrent theme in this evaluation is the current lack of integration between resource use and other economic pursuits, such as between wildlife and livestock, or wildlife and forestry. This simply serves to unnecessarily limit the ability of communities to maximize revenues and benefits from WMAs. While integration should be pursued in the design and facilitation of WMAs at the local level, cross-sectoral efforts should also be prioritized at the policy level.

- ❖ **In the next phase of WMA support, work with the MNRT and WMA facilitators to pilot WMA and Village Land Forest Reserve (VLFR) integration in high-potential forest areas.**

Clarifying and rationalizing actor roles and responsibilities

The current regulations are not sufficiently clear in defining the roles and specific responsibilities of all WMA actors (MNRT, district government, private sector, AAs, and village councils). The roles of these actors need to be revisited, and revised for clarity. Each actor is recognized in the current regulations, but lack of clarity in how they should fulfill their roles is leading to apparent abuses, inefficiencies, and long delays in approvals of agreements and other important documents. Among other issues, the role of district government in WMA oversight at present is unclear, and the evaluation team noted apparent abuses of the district's oversight role. In addition, an objective of the OCD process recommended above should be to ensure that AA's are structured and functioning to fulfill their management role in a more effective manner, contingent on the level of resources available to them.

- ❖ **Support WMA facilitators, AAs, private sector partners and the WD to review the roles and responsibilities of the various WMA actors and re-develop them in a participatory fashion that reinforces mutual checks and balances between the actors.**

Developing transparent revenue management and full wildlife revenue retention in WMAs

There is minimal transparency around revenue collection and earnings from investments in WMAs, and current revenue-sharing formulas, while an improvement over past practice, still represent a high and excessive rate of what is essentially taxation that can undermine community benefits and support for wildlife conservation. Current revenue management and distribution practices, whereby all revenues from wildlife-related investments in WMAs are first paid to the MNRT/Wildlife Division with revenues then later distributed back to the AAs, undercuts objectives of transparency and accountability. Government does not publish information on its direct earnings from each WMA, and AAs are unaware of total amounts of revenue collected from their WMA. This results in a situation where the communities not only do not know the total potential value of the wildlife in their WMAs, they do not know what revenues are currently being generated. This undermines community incentives to support conservation. Moreover, the current effective 35% tax on non-consumptive tourism revenues, together with the current revenue-sharing formulas for both tourist hunting and resident hunting (60% or more accrues to government) constitutes a quantitatively unknown but very significant diversion of revenues from WMAs to the government. This situation exists in

contradistinction to the overall chronic shortage of financial resources experienced by AAs, and the insufficient flow of benefits and therefore conservation incentives for communities.

Rather than effectively taxing WMAs at a punitive level (e.g. at 35% of net revenue for non-consumptive tourism), the government should allow full retention by the WMAs of all wildlife-related fees. Taxes are generally a disincentive to growth. The government should encourage and incentivize the growth of tourism in WMAs and thus benefit from what is likely to be increasing tax receipts from private sector economic activity (for example, corporation tax, VAT, import duty, tourism licensing fees etc.). This policy will stimulate economic growth at a wider scale, and create new sources of tax revenues from emerging small- and medium scale enterprises (see Economics and Enterprise Section below). This policy should draw on best practices elsewhere in the region, such as in Namibia, where conservancies retain 100% of income from tourism and hunting. This policy developed as a result of the community development focus underlying these conservancies, such a shift in focus is needed for the WMAs. Full revenue retention has been crucial to enabling the rapid growth and increasing self-sufficiency of the Namibian conservancies, and in turn contributed to the recovery of wildlife resources and the accompanying growth of tourism in Namibia.

- ❖ **Support a collaborative decision making process (among WMA stakeholders) on optimal revenue collection and management options in WMAs with the goal of improving transparency and accountability and increasing financial benefits to WMAs.**
(See annex C for details)

ECONOMICS & ENTERPRISE

The fundamental underlying assumption behind the WMA concept is that by granting communities rights to manage and benefit from wildlife, they will change their land and resource use practices (e.g. land-use conversion and illegal hunting) to support sustainable use and conservation. In this theory of change, local collective economic calculations play a key role. If the costs of living with wildlife continue to outweigh the benefits, communities are likely to have weak incentives to support conservation, and support to WMAs may continue to weaken. Similarly, even if WMAs generate considerable revenues, but all revenues are reinvested in management activities, or lost to mismanagement (see Governance section above), communities will have limited incentives to support WMAs. The change of thinking inherent in the Tanzania Wildlife Policy of 1998 that sanctioned the WMA initiative recognizes that if WMAs do not have strong local support, they are unlikely to be sustainable.

A number of WMAs have made considerable progress during the past five years in generating increasing levels of revenue, even if, as noted in the prior Governance section, revenue-sharing and distribution policies and practices greatly impede the real value of wildlife captured, or perceived as being captured, at the community level. There is thus a major governance dimension to economic challenges pertaining to the viability of WMAs as discussed in the previous section. There are also, however, considerable challenges and emerging opportunities in the realm of enterprise development, financing models, economic diversification, and value chain linkages which should be a priority focus for development in the next phase of WMA support.

Improving the Economic Viability of WMAs

The costs of establishing and running WMAs are high, and no WMA visited in this evaluation is yet financially self-sustaining. While this is in some ways a normal evolution in the course of CBNRM as experienced in other countries in the region, there are aspects of the pathway that existing WMAs are on that should be cause for concern, and suggest the need for new approaches and new thinking. Two basic issues urgently needing attention are:

1. **The overall level of business / financial planning and range of earnings being generated in WMAs is substantially inadequate and many opportunities are currently being missed.** (See details in Annex C)

2. **The currently unsupportable cost structure of WMAs undermines their overall viability.** (See details in Annex C)
 - ❖ **Support the GoT to evaluate the financing of WMAs in recognition of the human-wildlife buffer interface they provide for core protected areas and ecosystem functioning critical for Tanzania's billion dollar tourism industry.** (See details in Annex C)

Diversifying support for land-based and resource-use linked livelihoods and enterprises

There is a lack of diversified and sustainable revenue streams in WMAs, with most WMAs relying on only hunting or photographic tourism as income generators. Local uses of natural resources other than wildlife need to be integrated into the overall business plan for each WMA. There is a poor linkage between earnings in WMAs and village based enterprises. Earnings to WMAs are never used to invest in microfinance or microcredit activities. Household heads overwhelmingly (92% – 99%) perceived that there had been no economic benefits to their families from WMAs in productive activities, small business, or tourism. Two-thirds of household heads felt there had been no benefits from wage employment. **Diversification and taking a broad view of incentives in the design and implementation of CBNRM is extremely important.** The leading CBNRM programs in the region have all attempted to broaden their scope from an initial sectoral focus. The Northern Rangelands Trust in Kenya is particularly notable for taking an approach that focuses on improving local grazing management and livestock production alongside investments in wildlife and tourism. In Namibia, a great deal of effort has been invested in diversifying tourism products and using different types of wildlife enterprise that benefit a broad cross-section of the community, not least women. Tanzanian WMAs have enormous potential for integrating other resource uses such as forestry, fisheries, and livestock production, but these opportunities have thus far not been developed at any scale.

- ❖ **Develop a new program that promotes the diversification of revenue streams and enterprise opportunities in WMAs from an expanded suite of natural resources with the specific aim of improving individual and household benefits through existing and new entrepreneurial natural resource-based opportunities.** (See details in Annex C). While such a program will need to be carefully designed, three design components that should be considered for inclusion in the program are:
 1. **Piloting and taking to scale new natural resource product value chains that benefit from and also contribute to local livelihoods, WMAs and local conservation efforts.** (See Details in Annex C)
 2. **Piloting and taking to scale the practice of paying WMA benefits to villages to support village-based microcredit activities.** (See details in annex)
 3. **Enhancing the multiplier effects of tourism investments in WMAs.** (See details in annex)

Leveraging the financial resources and skills of the private sector as a key means for improving the sustainability and performance of WMAs

Overall, AAs have to date not worked with the private sector sufficiently closely as a strategic partner, in a manner that would result in major improvements in the economic viability and performance of WMAs. More often than not, the private sector has had to contend with government and AA bureaucracy, and sometimes justified suspicion and malpractices in their business dealings with WMAs. While effective partnerships exist, and some WMAs are now benefiting substantially from revenues generated by the private sector, much can be done to improve how WMAs can optimally benefit from and partner with the right private sector partners.

- ❖ **Support a program with the AA Consortium and MNRT to develop meaningful incentives and support to attract private sector investment into existing WMAs.** (See Details in Annex C). In providing a package of support and incentives, it is important to ensure that the right investors are attracted to invest in WMAs and that they are also held accountable:
 1. **Develop a system to identify and 'prequalify' investors that are likely to be good WMA partners.** (See details in annex)
 2. **Develop a mechanism for improving investor compliance in WMAs.** (See details in annex)

- ❖ **Support the WD and WMA facilitators to pilot the leveraging of the skills and experience of the private sector in establishing WMAs. (See details in annex).**

WMA PERFORMANCE MONITORING

As described in our findings there is no consistent monitoring of wildlife, socio-economic or other indicators that could be used to better understand the performance of the WMAs. Monitoring tools were developed in the “Indicators and Monitoring Plans for Wildlife Management Areas in Tanzania” (2004), but they are not being used. This is common in conservation and development sectors: centrally developed monitoring plans that require local participation to function rarely work. Functional monitoring systems require participation, ownership, capacity and relevance to those responsible for collecting the data. The AAs need to understand and buy in to the importance of monitoring in order to better understand the impacts of their efforts as a tool for improving management.

Although WMAs have a wildlife focus, in reality AAs and local communities face a diverse and complex set of management challenges (resource protection, human wildlife conflict, land use change, fire, etc.) that need to be adequately addressed together if the WMAs are going to be successful in the long-term. In addition, assuming efforts to diversify natural resource uses in WMAs are successful, AAs will have to be able to track the use of a range of resources (forests, grazing, fish, etc.). It will be critical in the next phase of WMA development that simple performance monitoring becomes a basic management tool for the WMAs.

At the same time regional experience shows that having good national level data on CBNRM outcomes and impacts is an important tool in advancing policy and building support for CBNRM. The challenge is aligning the local and national systems such that local data can be useful at the national level without being burdensome to the WMAs. Requiring difficult or expensive collection of data that is not necessarily of import to local groups is rarely successful.

Supporting the development of a WMA performance monitoring system

There are three critical areas for monitoring that will need support over the next phase of WMA development: wildlife and ecological monitoring, socio-economic outcomes and impacts of WMAs and—as it becomes necessary—monitoring other natural resource uses. Doing this successfully will require a mix of stakeholders including government (MNRT and TAWIRI), the AAC, Facilitator NGOs and of course the AAs themselves. WWF is currently working on developing a simplified tool for a more comprehensive WMA M&E system. The comparison data from the 2003 and 2013 surveys may be of use in defining useful socio-economic indicators. If it is to be successful, both content and processing of the overall system will need to be very simple and broad participation in its development and piloting will be necessary.

- ❖ **Support the development and implementation of a practical WMA performance monitoring system capable of serving local (AA) and national level CBNRM management needs. (See details in Annex C)**

DESIGN AND FACILITATION

In order to address many of the major issues related to policy and governance, economics and enterprise, and wildlife management as discussed in this review, it will be important to not only consider *what* is done but *how* it is done. This brings us to the area of WMA design and facilitation, and a number of conclusions and recommendations in this section.

Optimizing the WMA establishment process and reducing donor dependency

The 12-step process to create a fully functional WMA involves extensive investment of time and resources, the cost and complexity of which has certainly been beyond the reach of member villages. Although WMA

creation was a participatory process and community members were mobilized and involved by their facilitators, this long period of reliance on outside facilitators has created a serious and potentially lasting dependency. The cost of producing the key documents for attaining AA status has been exorbitantly high.

- ❖ **Support the AA consortium, private sector, WD and WMA facilitators to work together to find ways of streamlining the WMA establishment process and to reduce the costs of WMA establishment.** (See details in Annex C)
- ❖ **The WD should, in consultation with stakeholders, establish a fair process for a village to leave a WMA.** (See details in Annex C)
- ❖ **Future support to WMAs should be cognizant of and strive to design facilitation in ways that avoid donor dependency.** (See details in Annex C)

Reviewing the rationale for determining the size and structure of WMAs and how benefits are allocated between constituent villages

WMAs need more flexibility to negotiate terms between constituent or potentially constituent villages. Issues of inequality or feelings of unequal treatment can fester in a CBNRM structure like a WMA. In WMAs like Pawaga-Idodi, where a significant number of villages did not contribute land in the creation of the WMA but receive a share of revenues equal to those that did contribute, this issue has caused serious conflicts within the AA. CBNRM requires negotiation and discourse among beneficiaries. Rarely do communities give up the same opportunities or share equally in costs. It is therefore not fair to expect them to share all benefits equally; one of the central principles of Zimbabwe's CAMPFIRE program, for example, was that wildlife management rights and capture of benefits should be as closely aligned as possible with those communities that 'produce' wildlife, i.e. those communities that live alongside wildlife and suffer the costs of co-existence. Allowing these potential conflicts to surface earlier in the implementation process would avoid the paralysis we now see in Pawaga-Idodi around the issue of benefit sharing.

There has also been a tendency to encourage or allow the formation of large WMAs. The evaluation team has noted a range of governance and management challenges associated with large WMAs visited, such as Wami-Mbiki and Pawaga-Idodi, each of which comprises more than 20 villages over a range of administrative and socio-economic contexts. It is now apparent that the complexity of these arrangements can impede transparency and accountability, as well as diluting the possibility of generating significant individual or household benefits. Disparities between 'wildlife-rich' and 'wildlife-poor' villages exist in many WMAs, and in general WMAs have not been designed to maximize benefits to those communities that bear most of the costs of living alongside wildlife. Ultimately this lack of attention to scale endangers the governance and economic viability of WMAs and should be carefully addressed in future WMA facilitation efforts and investments. Note that this seems to be more related to large numbers of villages and/or complex arrangements between districts rather than just the number of hectares covered by a WMA. Ipole for instance is of comparable size to Wami-Mbiki but with only 4 constituent villages (soon to increase to 6) it seems to be dealing better with governance and management challenges.

- ❖ **Facilitation of WMAs should allow for more negotiation and flexibility in the development of revenue sharing mechanisms and ratios between constituent villages.** (See details in annex)
- ❖ **WMA facilitators and the WD should give renewed consideration during the WMA establishment and planning process to the trade-offs between size, benefits, and accountability in the design of WMAs.** (See details in Annex C)

Promoting the inclusive participation and improvement of benefits for women and youth

Given the fact that wildlife conservation tends to be a male dominated sector the level of female representation in AA membership, although well short of equal, is a sign that gender has been a real concern in the development of the WMAs. However improved representation is just a first step in gender mainstreaming and the lack of gender audits or analyses and gender disaggregation in the 2004 "Indicators and Monitoring Plans for Wildlife Management Areas in Tanzania" indicate there is a greater need to focus on gender and disadvantaged groups as the next phase of WMA support unfolds. This is particularly true

since future activities should involve more attention to economic development and uses of a range of natural resources.

- ❖ **Require the development and integration of gender analyses to better understand and positively impact the differential roles of and potential benefits to disadvantaged groups in the WMAs.** (See details in annex).

Improving the facilitation of WMAs

Broadening, indigenizing and diversifying the involvement of facilitating organizations and skill sets

An important observation from the WMA experience in Tanzania is the degree to which the WMA process has been predominantly managed and steered by a small number of large international organizations, primarily conservation organizations. This has been valuable for promoting wildlife conservation objectives and building relationships with wildlife authorities in Tanzania, but it may also contribute to some of the challenges that exist in areas such as organizational development of the AAs, enterprise and private sector engagement, and local governance accountability and transparency. These governance, organizational development and enterprise areas, which are now the key challenges for the future of WMAs, are not the core competence of most conservation organizations. In addition, the WMA process has faced numerous policy and governance challenges during the past decade, and it is notable that until the recent formation of the AA Consortium, there has been no vocal domestic civil society constituency for reform that could demand change in a way that represents community interests; international organizations are not well positioned to lobby for devolutionary changes in CBNRM. Indeed, one of the principal lessons from CBNRM experiences elsewhere in the region has been the importance of strong national leadership, both within government and from leading civil society actors (e.g. Integrated Rural Development and Nature Conservation in Namibia; various scholars and NGOs in Zimbabwe during CAMPFIRE), in bringing about the scope of policy and institutional change that CBNRM requires. Skilled national facilitators and policy entrepreneurs who can facilitate change at the local level and in the policy arena are an indispensable component of durable CBNRM.

- ❖ **Support to WMAs should prioritize developing stronger relationships and a greater leadership role for Tanzanian civil society organizations.** (See details in Annex C)
- ❖ **Support should also bring about greater involvement of more local grassroots organizations in facilitating WMAs as an extension of promoting a greater role for Tanzanian CSOs.** (See Details in Annex C)
- ❖ **Program particular support for growing the organizational capacity and influence, as well as strengthening the internal accountability and administration, of the AA Consortium.** (See details in Annex C)
- ❖ **Seek to enroll the support of a wider range of organizations with skill and experience in promoting self-sustaining initiatives and enterprise.** (See details in Annex C)

6.0 ANNEXES

ANNEX A: BIBLIOGRAPHY

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Capacity development resources:

http://pdf.usaid.gov/pdf_docs/PNADR219.pdf

Although focused on CD for HIV/AIDS practitioners, this is an excellent overview of the state of the art of capacity development and is easily relatable to biodiversity conservation.

<http://www.snvworld.org/en/publications/capacity-development-in-practice-complete-publication>

This offers a good overview of capacity development practice.

<http://www.impactalliance.org>

The Impact Alliance website provides a great source of general capacity development materials.

ANNEX B: FULL EVALUATION METHODOLOGY

The evaluation design, data collection methods and tools, field site selection, household survey sites and content, and schedule of field trips were all described in the “Evaluation Design and Methodology Report” (April 10, 2013) submitted to USAID. In brief, this methodology consisted of a mixed methods approach that triangulated pre-test/post-test analysis of household survey data with document review, key informant interviews, focus group discussions, and team member observations. The evaluation team was fortunate in being able to adhere closely to its original data collection schedule and field visits.

DATA SOURCES

The core team, consisting of team leader, evaluation specialist, and two local technical advisors, relied on the following data sources during this evaluation: existing documents; key informant interviews; focus group discussions (FGDs) with stakeholder groups, including donors, NGOs, district government officials, village game scouts, village councilors, and ordinary villagers; supplemented by a household survey of 750 households in 25 villages of five WMAs. The survey duplicated the key questions of the baseline household survey undertaken in 2003 but also added a number of Knowledge, Attitudes, and Perceptions (KAP) questions.

DATA COLLECTION METHODS

Document Review

The process of assembling and reviewing key documents began about March 20, 2013. A wide variety of documents were collected and posted online to a Google documents website, the most important of which for background context were those relating to the 2003 baseline methodology and studies, evaluations of the pilot phase in 2006 and 2007, other studies done in 2007 and 2011 by Nelson and Tarimo (and others), a stocktaking roundtable meeting in late 2011, and the recent Biennial Status Report 2004 – 2012 (2013). Each of the original pilot WMAs was set up online with a file containing other existing documentation, such as land use plans, resource management zone plans, general management plans, and business plans. Documentation was extensive, but baseline study reports were only available for nine of the original 16 WMAs. Statistical data for the 2003 household baseline survey also existed for most of the original WMAs, but the original raw data could not be found.

Key Informant Interviews

Key informant interviews and meetings began on April 3, 2013. The persons seen individually or in groups on the government side included the Director of the Wildlife Division of the Ministry of Natural Resources and Tourism and members of the Wildlife Division’s Community-based Conservation (CBC) unit that are responsible for WMA liaison and regulatory activities. Other interviews in Dar es Salaam were held with the executive secretary of the Authorized Association Consortium, donor organizations, and conservation and development NGO staff that have facilitated the development of various WMAs. In the field, interviews were held in five districts and 15 villages with relevant district and village-level officials, WMA leaders, and facilitating NGO staff in Iringa and Arusha.

Selection of WMAs and Field Sites

An important methodological issue in the document review was to examine those WMAs for which baseline reports existed and select a manageable number of them for field visits during the evaluation. Five WMAs were selected according to a set of criteria stressing diversity of types: Burunge, Enduimet, Ipole, Pawaga-Idodi, and Wami-Mbiki. Evaluation team access to various geographical areas was one of the important issues considered alongside geographical dispersion, bio-physical diversity, socio-economic variety, and degree of success in generating revenues for their constituent communities. Statistical data from the 2003 household survey also existed for all but one of these five WMAs (Pawaga-Idodi).

The selected WMAs included areas from the northwest and far north, the east, the south, and the southwest. Four other WMAs in the southeast that might have increased geographical dispersion did not have baseline reports (Liwale, Mbarangandu, Ngarambe-Tapika, and Tunduru). The selected WMAs ranged from small to very large in geographic and population size; included areas with high economic potential and others with medium or low potential; ranged from low to high ethnic diversity; included savannah, forest, and mixed forest and savannah areas; included agricultural, agro-pastoral, and pastoral economies; ranged from low to high wildlife density; ranged from low to high overall success as a WMA; and included areas that ranged from low to high rainy season accessibility (with a majority of the latter). Four of these five WMAs (all except Wami-Mbiki) also were covered by a socio-economic study in 2010 as part of a USAID cash-for-work program. These studies provided considerably more recent information than did the baseline reports. The preceding factors are summarized below for each of the five WMAs.

- **Burunge:** northwest location, medium size and population, high income and economic potential, highly mixed ethnicity, mixed forest and savannah, agriculture and pastoral economies, high wildlife density, a cash-for-work program, medium success overall, and high accessibility.
- **Enduimet:** far north location, small size but fairly large population, high income and economic potential, ethnic homogeneity, savannah, pastoral economy, high wildlife density, a cash-for-work program, medium overall success, and high accessibility.
- **Ipole:** southwest location, large area but very small population, low income and medium economic potential, ethnic homogeneity, forest, agro-pastoral economy, low wildlife density, a cash-for-work program, low overall success, and low accessibility.
- **Pawaga-Idodi:** southern location, medium size but very large population, medium income and economic potential, mixed ethnicity, mixed forest and savannah, agricultural economy, medium wildlife density, a cash-for-work program, medium overall success, and medium accessibility.
- **Wami-Mbiki:** eastern location, very large area and population size, low income but medium economic potential, mixed ethnicity, mixed forest and savannah, agriculture and pastoral economies, medium wildlife density, no cash-for-work program, low overall success, and high accessibility.

Household Survey

A household survey was also undertaken that paralleled the one conducted in 2003. Since few questions in 2003 could refer to WMAs that had yet to function in the areas where they were planned, a second set of questions was added to the 2013 survey. This section constitutes a Knowledge, Attitudes, and Perceptions (KAP) survey that allowed household respondents to express their opinions and views on a wide variety of WMA issues and characteristics. The survey questionnaire was annexed to the methodology report (April 10) and the raw data and response frequencies will be delivered to USAID. A summary of the results of the

household survey and a comparison of 28 key variables between the 2003 and 2013 surveys are presented in annex to the present report.

Household Survey Sampling Design

The household survey was conducted by EcomResearch Group of Dar es Salaam in the five WMAs selected for study under this evaluation: Burunge, Enduimet, Ipole, Pawaga-Idodi, and Wami-Mbiki. Between two and seven villages were surveyed in these WMAs, depending on the total number of villages in each. A sample of 30 households was randomly drawn from each of the 25 chosen villages, from which a total of 741 valid survey responses were obtained.

The following table indicates the number of villages in each WMA and the names of those villages selected for this survey. The villages that were selected for the 2003 baseline survey were given preference, but a few substitutions were made.

Table 1: Villages in the Household Survey

WMA	Number of Villages	Sample Villages	Names of Sample Villages (30 HHs sampled from each)	Number of Households
Burunge	10	5	Mwada, Vilima Vitatu, Magara, Kakoi, Maweni	150
Enduimet	9	5	Kitendeni, Sinya, Olmolog, Elerai, Lerang'wa	150
Ipole	4	2	Ipole, Utimule	60
Pawaga-Idodi	21	6	Mahuninga, Tungamalenga, Mafuruto, Mboliboli, Magombwe, Luganga	180
Wami-Mbiki	24	7	Kwaruhumbo, Tukamissa, Kidudwe, Mkono wa Mara, Dahinda, Makombe, Mwidu	210
Total	68	25		750

In selecting the households within a given village, the survey team first worked with village officials to identify which sub-villages were predominantly agricultural or livestock raising and then randomly selected from each group 15 households using a sampling interval approach. By skipping a calculated number of households, each household in a given livelihood group (agricultural or livestock) had a known and equal probability of being selected. Beginning by randomly selecting the first household, the enumerators proceeded through the local population until the sample of 30 households contained an appropriate number of agricultural, agro-pastoral, or herding households, while also capturing appropriate diversity in terms of age, sex, and educational level of household head and other socio-economic characteristics.

The definition of household was that of all people living within the same house or compound, even if there were several wives with their children, as long as they belong to the same household head. In order to capture accurate information, it was necessary to interview the person best informed of household issues. This was in most cases the head of household, whether male or female.

Focus Group Discussions

The core evaluation team carried out focus group discussions (FGDs) in two to four villages in each WMA, depending on its population size and socio-economic diversity.

These FGDs were semi-structured, participatory discussions with a small but variable number of discussants drawn from the following target groups.

- Officers and members of the WMA Authorized Association
- Officers and members of the village council
- Representatives of the Village Game Scouts
- Male and female ordinary citizens (non-leaders)

Given the number and variety of FGDs and distances between villages, only one village per day could normally be covered by the team. In the final two WMAs visited (Burunge and Enduimet), the team split into two sub-groups of two persons and were able to cover all focus groups in three villages in each WMA. Village visits followed an introductory visit to government officials at the district level, in which relevant district officers were interviewed individually or in small groups using semi-structured interview guides. Interviews with villagers focused on the following 10 themes:

- WMA history and purposes
- Achievements and benefits
- Challenges and problems;
- Land use plans
- User rights
- AA leadership and representation
- Household economic benefits
- Wildlife management and VGS activities
- Investors
- Way forward (recommendations).

Schedule of Field Visits

The team traveled by vehicle between the villages of the five WMAs in the order presented in the table below.

Table 2: Schedule of Visits to WMA Villages

Week	Dates	WMAs	Total Villages	Villages
1	April 14 – April 19	Wami-Mbiki	24	Mwidu Makombe Kambala Mkono wa Mara
2	April 21 – April 26	Pawaga-Idodi	21	Tungamalenga Malinzanga Ilole Mpya
3	April 28 – May 2	Ipole	4	Idekamiso Ipole

4	May 6 – May 8	Burunge	10	Maweni Vilima Vitatu Minjingu
4	May 9 – May 10	Enduimet	9	Olmolog Ngereiyani Sinya

Data Analysis

Data gathered in FGDs, key informant interviews, and personal observation have been applied to the key groups of questions in the evaluation scope of work: achievements and benefits received, effectiveness and efficiency of WMA design and implementation, and awareness, attitudes and perceptions of stakeholder groups, particularly community members. From the responses to these areas of inquiry, the team has drawn conclusions, lessons learned, considerations of sustainability, and recommendations.

The consensus results of FGDs and individual interviews have been triangulated against the results of the household survey. The first 48 questions of the survey reproduce many of the questions asked in the baseline household survey in 2003. Responses to 28 key demographic, quality of life, and economic questions have been directly compared to response frequencies in the baseline, although there remain problems of causality, since many changes could have occurred without influence from the WMA. This is where it has been useful to triangulate important changes found between the two surveys with information gathered in FGDs and key informant interviews.

The final 42 questions of the household survey constituted a KAP survey. Since KAP questions could not be asked at the baseline when little or nothing had yet happened in the newly created WMAs, these questions sought to elicit respondents' views of the WMAs along dimensions of overall understanding, governance, environmental and wildlife impacts, village-level conflicts, economic and other benefits to villages and individuals, and the like. These were fundamentally the same questions asked of village-level focus groups. Responses to questions on the household survey could be directly compared to those obtained in village FGDs. In essence, the survey documented and quantified many of the various responses obtained through FGDs and individual interviews.

Debriefing with USAID and Initial Findings Workshop

On May 20, 2013, the evaluation team briefed the USAID Natural Resources Management (NRM) team on its initial findings and preliminary conclusions, followed the next day by an initial findings workshop with about 50 stakeholder representatives, including AA chairmen from the five WMAs visited. Following a morning session on initial findings, breakout groups discussed these findings to generate concerns, further questions, and needs for additional information. Participants in these groups were selected randomly. In the afternoon other breakout groups selected by participant interest generated action-oriented responses to the numerous challenges raised in the morning session.

ANNEX C: DETAILED RECOMMENDATIONS

The purpose of this annex is to provide more details on how to implement the recommendations outlined in the report.

POLICY & GOVERNANCE

Conclusions and recommendations around policy and governance issues are divided into two key areas: local governance, focusing on the capacity and performance of the AAs as the key WMA management and governance body; and macro-governance, which focuses on national policy and governance issues.

Local Governance

Local governance is fundamental to the delivery of WMAs on all of their social, institutional, and conservation objectives. If local governance is weak or performs at a low level, financial benefits may be lost due to malpractices, community well-being will not improve, conflicts will be more frequent, and overall community support for the WMA is likely to erode. In other words, the entire WMA enterprise is premised on the ability of the AAs to effectively manage the WMAs, manage and distribute revenues generated by the WMAs, communicate effectively about management decisions and benefits obtained, and respond to wider community concerns. Accountability of the AAs to their constituents in the WMA member villages is crucial; as noted with CBNRM efforts throughout the region, where there is little local accountability in natural resource governance institutions, community support for natural resource conservation and management efforts may dissipate.

A major conclusion of this review is that at present the management and governance capacity of AAs remains low. Serious performance deficiencies exist and represent one of the most important current threats to existing WMAs.

Strengthening the capacity and performance of WMA AAs

A major priority for supporting and strengthening WMAs lies in improving WMA governance by strengthening the capacity of the AAs.

- ❖ **Support the design and implementation of a comprehensive organizational capacity development (OCD) program for WMAs that should be incorporated into the overall WMA support program.** The OCD program should be based on a collaboratively designed organizational capacity assessment tool implemented for each WMA. In addition to basic organizational capacities this tool could, for example, draw on the **‘Dashboard’ monitoring system for local governance in CBNRM** that has been developed by scholars (B. Child et al.) at the University of Florida and used to evaluate performance in CBNRM in a range of sites in Namibia, Zambia and Botswana. The OCD program should rely more on mentoring to allow a learning- by-doing approach over formal training. Peer-to-peer learning should also be promoted. The key is to assist AAs to handle their own affairs with the security of having a mentor in the background to help out and provide advice. While some technical skills (like VGS activities or land-use planning) should continue to be supported, priority should be given to supporting organizational development, such as systems and structures needed for good governance, transparent financial management, effective operations, and resource mobilization.

Assistance would also be provided in the development of adaptive capacities in M&E, adaptive management, strategic planning, and learning skills, as well as in the influencing capacities of advocacy, lobbying, negotiation, and coalition building. In providing this organizational development support, it will be critical to draw on centers of expertise and skilled facilitation for delivering these outputs. Here as elsewhere, new skillsets may be needed to effectively address current challenges in WMA facilitation.

Transforming local awareness in WMAs for enhanced accountability

A key part of improving the governance of the WMAs will be to help them improve their accountability to their constituents. The overall accountability of AAs would be much improved if they did a better job of awareness raising, improving the availability of information and promoting greater participation at the village level. This would result in a greater understanding of WMAs within their broader local constituency- namely the member Village Assemblies. Community members living in WMAs need to have a clear understanding of WMA functions and operations, and access to sufficient information, if they are to play their role in holding the AAs accountable, and accurately perceive and make appropriate decisions about benefits from WMAs. Much of the focus thus far in the WMA process has been on WMA establishment and where training has been provided it has often focused on the AAs technical functions like the VGS.

- ❖ **Support AAs to carry out continuous awareness and communications programs that enhance transparency and encourage villagers to hold AA leadership accountable for the performance of the WMA** (see more on this below in Design and Facilitation). There should be greater investment and emphasis on more direct grassroots village-level awareness-raising, information dissemination, and ensuring that communities are able to provide the required oversight of the AAs as well as their Village Councils. Groups with expertise in grassroots communication and awareness-raising in Tanzania, for example the NGO 'Twaweza⁴, should be involved or consulted in the development of such activities. The AAC might also be a good partner to support in this endeavor as it could ensure broad dissemination of the skills and information tools needed. New communications tools should be explored such as radio, community theater, and other media and technologies to enhance messaging and make the process as simple as possible for AAs.

Macro-Governance

Shifts in power and authority that grant local communities clear rights over natural resources are a foundation of any CBNRM program. Often such shifts in power are challenging and may be long-term processes of institutional negotiation, as has taken place over the past two decades in Tanzania. WMAs represent the gradual devolution of authority over wildlife, and, crucially, the revenues that wildlife generates through tourism and hunting, from the MNRT to the local scale. WMAs now have a broad political constituency, including parliamentary support, and clear basis in Tanzanian law and policy. The 2012 WMA Regulations took additional critical steps towards further devolution of authority. Despite this progress, devolution is incomplete, key policies or procedures undermine the viability of WMAs from both a governance and economic perspective.

⁴ <http://www.twaweza.org/>

Addressing wildlife sector governance, structural and economic issues

Given the importance of issues such as cross-sector governance, finances and revenue distribution, economic diversification, and developing a more integrated approach to CBNRM, it is important to provide support to WMAs in a manner that addresses a wider suite of natural resource governance and development issues in Tanzania. For example, many of the most important governance issues affecting WMAs now and over the past decade involve much wider governance, structural and financial management issues in the wildlife sector, including the way tourist hunting is governed. This has been widely noted and analyzed by insiders and outsiders during the past decade (see e.g. Baldus and Cauldwell, 2004; Nelson and Blomley, 2010). Strengthening key governance, policy, and economic issues for WMAs will require more effective strategies to engage with and facilitate change in this wider realm of wildlife management and governance, and more collaboration amongst donors, government agencies, and civil society to develop more effective integrated approaches to CBNRM, which cannot arise solely through a focus on WMAs or even solely on the wildlife sector.

- ❖ **More engagement on cross-sectoral natural resource management, policy, and governance issues with the Development Partners Group- Environment (DPG-E) and the government.** The DPG-E has been a much more active forum for collaboration between development partners working in the forestry sector, such as the Scandinavian countries, than it has been for wildlife. WMAs should be situated more clearly within wider policy and governance approaches to CBNRM in Tanzania, such as PFM in the forestry sector. There is much to gain from closer collaboration between supporters of forestry and wildlife approaches to CBNRM in terms of integrating implementation models, policy frameworks, and learning from common challenges and successes. One way to start, for example, would be by having this review be presented at a meeting of DPG-E and engage other development partners exploring issues around natural resource governance (such as a previously proposed cross-sectoral initiative on decentralized natural resource management [DeNRM]) and revenue generation dimensions, which are of particular strategic importance to WMAs.

A policy initiative, that includes revisiting the previously developed 'DeNRM' concept and which aims to provide clear guidelines for the operational integration of WMAs and VLFRs, should be developed. Ultimately, community-based wildlife and forest management in Tanzania will benefit most from an integrated support mechanism to integrate these sectors in order to improve efficiencies, encourage learning, and better support practical management challenges on the ground. It is likely that such a policy initiative would be most effective if it were based on joint support from all the donors currently supporting natural resource management in Tanzania, including USAID, and Finnish, Norwegian, Danish and Belgian counterpart agencies, among others.

Transitioning towards the integration of community-based wildlife management and forestry

The current sectoral focus of WMAs is constraining an overall integrated approach to sustainable land and natural resource management; a more integrated approach to a CBNRM framework is needed, particularly between the wildlife and forestry sectors. This has been identified in the literature repeatedly and should be a long term GoT and donor goal. A recurrent theme in this evaluation is the current lack of integration between resource use and other economic pursuits, such as between wildlife and livestock, or wildlife and forestry. This simply serves to unnecessarily limit the ability of communities to maximize revenues and

benefits from WMAs. While integration should be pursued in the design and facilitation of WMAs at the local level, cross-sectoral efforts should also be prioritized at the policy level.

❖ **In the next phase of WMA support, work with the MNRT and WMA facilitators to pilot WMA and Village Land Forest Reserve (VLFR) integration in high-potential forest areas**, such as Wami-Mbiki or Ipole as ideal sites for developing this much-needed integrated model. The practicalities of how VLFRs can operate within WMAs need to be piloted and better understood within their parallel legal frameworks. For example, a better understanding is required of how overlapping jurisdictions and multiple benefit streams from each of these jurisdictions can be managed within WMAs.

Clarifying and rationalizing actor roles and responsibilities

The current regulations are not sufficiently clear in defining the roles and specific responsibilities of all WMA actors (MNRT, district government, private sector, AAs, and village councils). The roles of these actors need to be revisited, and revised for clarity. Each actor is recognized in the current regulations, but lack of clarity in how they should fulfill their roles is leading to apparent abuses, inefficiencies, and long delays in approvals of agreements and other important documents. Among other issues, the role of district government in WMA oversight at present is unclear, and the evaluation team noted apparent abuses of the district's oversight role. In addition, an objective of the OCD process recommended above should be to ensure that AA's are structured and functioning to fulfill their management role in a more effective manner, contingent on the level of resources available to them.

❖ **Support WMA facilitators, AAs, private sector partners and the WD to review the roles and responsibilities of the various WMA actors and re-develop them in a participatory fashion that reinforces mutual checks and balances between the actors.** The revised roles and responsibilities need to be legally enshrined (for example, through revising the WMA regulations) and clear consequences for non-compliance by the actors (including government) need to be included. The revised roles and responsibilities with then need to be widely communicated and understood.

Developing transparent revenue management and full wildlife revenue retention in WMAs

There is minimal transparency around revenue collection and earnings from investments in WMAs, and current revenue-sharing formulas, while an improvement over past practice, still represent a high and excessive rate of what is essentially taxation that can undermine community benefits and support for wildlife conservation. Current revenue management and distribution practices, whereby all revenues from wildlife-related investments in WMAs are first paid to the MNRT/Wildlife Division with revenues then later distributed back to the AAs, undercuts objectives of transparency and accountability. Government does not publish information on its direct earnings from each WMA, and AAs are unaware of total amounts of revenue collected from their WMA. This results in a situation where the communities not only do not know the total potential value of the wildlife in their WMAs, they do not know what revenues are currently being generated. This undermines community incentives to support conservation. Moreover, the current effective 35% tax on non-consumptive tourism revenues, together with the current revenue-sharing formulas for both tourist hunting and resident hunting (60% or more accrues to government) constitutes a quantitatively unknown but very significant diversion of revenues from WMAs to the government. This situation exists in contradistinction to the overall chronic shortage of financial resources experienced by AAs, and the insufficient flow of benefits and therefore conservation incentives for communities.

Rather than effectively taxing WMAs at a punitive level (e.g. at 35% of net revenue for non-consumptive tourism), the government should allow full retention by the WMAs of all wildlife-related fees. Taxes are

generally a disincentive to growth. The government should encourage and incentivize the growth of tourism in WMAs and thus benefit from what is likely to be increasing tax receipts from private sector economic activity (for example, corporation tax, VAT, import duty, tourism licensing fees etc.). This policy will stimulate economic growth at a wider scale, and create new sources of tax revenues from emerging small- and medium scale enterprises (see Economics and Enterprise Section below). This policy should draw on best practices elsewhere in the region, such as in Namibia, where conservancies retain 100% of income from tourism and hunting. This policy developed as a result of the community development focus underlying these conservancies, such a shift in focus is needed for the WMAs. Full revenue retention has been crucial to enabling the rapid growth and increasing self-sufficiency of the Namibian conservancies, and in turn contributed to the recovery of wildlife resources and the accompanying growth of tourism in Namibia.

- ❖ **Support a collaborative decision making process (among WMA stakeholders) on optimal revenue collection and management options in WMAs with the goal of improving transparency and accountability and increasing financial benefits to WMAs .** The process should examine how different revenue collection models might best be managed by WMAs while contributing to different forms of wealth generation (e.g. direct revenue, indirect revenue, growth of the natural resource asset). **It will be important to carry out this process while paying attention to the wider context of wildlife sector financing in Tanzania, including in relation to the emerging Tanzania Wildlife Service** in order to support future revenue- and cost sharing arrangements that better contribute to the sustainability and viability of WMAs (see the Economics and Enterprise Section). This process will require obtaining better data on existing revenue flows from investors to the WD and from the WD to communities. This will provide instructive information on what revenues are being generated by WMAs and what revenues communities are receiving. During the course of this review, this data proved extremely difficult to obtain and verify, but the WD was open to sharing the information they had. As an example of the quality of data on revenues that should be reasonable to expect and obtain, the biennial *State of the Conservancy* reports produced by the Namibian Association of CBNRM Support Organizations is a valuable reference. This process should also include the **development of a system by which all WMA actors are required to report publicly on payments made and received** using the data obtained per the above recommendation. Investors should report to WMAs the amounts paid to government, government should report amounts paid to or on behalf of WMAs, and WMAs should report basic information on revenues and expenses.

ECONOMICS & ENTERPRISE

The fundamental underlying assumption behind the WMA concept is that by granting communities rights to manage and benefit from wildlife, they will change their land and resource use practices (e.g. land-use conversion and illegal hunting) to support sustainable use and conservation. In this theory of change, local collective economic calculations play a key role. If the costs of living with wildlife continue to outweigh the benefits, communities are likely to have weak incentives to support conservation, and support to WMAs may continue to weaken. Similarly, even if WMAs generate considerable revenues, but all revenues are reinvested in management activities, or lost to mismanagement (see Governance section above), communities will have limited incentives to support WMAs. The change of thinking inherent in the Tanzania Wildlife Policy of 1998

that sanctioned the WMA initiative recognizes that if WMAs do not have strong local support, they are unlikely to be sustainable.

A number of WMAs have made considerable progress during the past five years in generating increasing levels of revenue, even if, as noted in the prior Governance section, revenue-sharing and distribution policies and practices greatly impede the real value of wildlife captured, or perceived as being captured, at the community level. There is thus a major governance dimension to economic challenges pertaining to the viability of WMAs as discussed in the previous section. There are also, however, considerable challenges and emerging opportunities in the realm of enterprise development, financing models, economic diversification, and value chain linkages which should be a priority focus for development in the next phase of WMA support.

Economic Viability of WMAs

The costs of establishing and running WMAs are high, and no WMA visited in this evaluation is yet financially self-sustaining. While this is in some ways a normal evolution in the course of CBNRM as experienced in other countries in the region, there are aspects of the pathway that existing WMAs are on that should be cause for concern, and suggest the need for new approaches and new thinking. Two basic issues urgently needing attention are:

The overall level of business / financial planning and range of earnings being generated in WMAs is substantially inadequate and many opportunities are currently being missed. AAs have very limited skills or frameworks to work with in terms of business planning, revenue generation (pricing) and enterprise development. This means that the economic values of multiple types of natural resources in WMAs are not being captured. Earnings derived by most established WMAs are not yet meeting basic operational costs. Some WMAs (Wami Mbiki) are receiving no income due the absence of investors leading to a stalling of conservation and patrol activities, and no benefits for communities. The process of establishing WMAs did not require a rigorous assessment of business opportunities to determine whether each WMA would be economically viable, and many appear not to be as currently run. From a cost efficiency perspective, the meager income generated by most current WMAs is still dwarfed by their investment cost.

The currently unsupportable cost structure of WMAs undermines their overall viability – this has been brought about by the disconnect between expected revenues and forecast or budgeted expenditures. Two of the five WMAs visited during the evaluation (Wami-Mbiki and Pawaga-Idodi) have not made a village revenue distribution for the last two years. It is clear that a major challenge facing WMAs is the generation of sufficient benefits at the individual, household, and community scale to create incentives for communities to maintain, manage, and support their WMAs. At present WMAs are, for the most part, not covering their basic operational costs and are providing very limited benefits to communities.

- ❖ **Support the GoT to evaluate the financing of WMAs in recognition of the human-wildlife buffer interface they provide for core protected areas and ecosystem functioning critical for Tanzania's billion dollar tourism industry.** While communities have borne increasingly high livelihood opportunity costs of providing buffer areas for wildlife on their land and maintaining ecosystem connectivity, and donors have provided WMA establishment costs, the government has instead extracted revenues from WMAs and invested comparatively little in them thus far. The GoT has progressively improved and clarified the benefit sharing mechanisms and ratios for WMA's and while these still need improvement it is time to also recognize that the WMAs also have costs that the government should share with communities. With a high human population growth rate that the government now identifies as a major challenge for the country's

development, together with rapidly increasing pressure on land and natural resources, it is clear that the ecological services that WMAs provide will become ever more significant for maintaining the viability of Tanzania's protected areas, ecosystems and key migratory wildlife populations. **The government should re-evaluate its policy of extracting revenues from WMAs and instead examine how it can most effectively subsidize the WMAs as a strategic investment in the long-term viability of the wildlife sector in Tanzania, in turn underpinning the economically vital tourism industry. Some WMAs while fulfilling critically important socio-ecological functions may remain economically non-viable in the long term, requiring elevated subsidies, while others may be able to operate in a viable manner with less support.** A theoretically straightforward option for implementing part of the subsidy could be through the Tanzania Wildlife Protection Fund (which currently receives 25% of all hunting fees from WMAs), which could provide block grants to cover resource protection costs for WMAs. This approach would allow the government to take the "pressure" off some ecologically important WMAs that are not yet able to provide significant returns to communities. Care would need to be taken in instituting these subsidies as they would be easy to give out but much more difficult to stop once they are in place. Taking them away once a certain level of economic development has been reached could be seen as a disincentive to improving incomes beyond a certain point.

Diversifying support for land-based and resource-use linked livelihoods and enterprises

There is a lack of diversified and sustainable revenue streams in WMAs, with most WMAs relying on only hunting or photographic tourism as income generators. Local uses of natural resources other than wildlife need to be integrated into the overall business plan for each WMA. There is poor linkage between earnings in WMAs and village based enterprises. Earnings to WMAs are never used to invest in microfinance or microcredit activities. Household heads overwhelmingly (92% – 99%) perceived that there had been no economic benefits to their families from WMAs in productive activities, small business, or tourism. Two-thirds of household heads felt there had been no benefits from wage employment. **Diversification and taking a broad view of incentives in the design and implementation of CBNRM is extremely important.** The leading CBNRM programs in the region have all attempted to broaden their scope from an initial sectoral focus. The Northern Rangelands Trust in Kenya is particularly notable for taking an approach that focuses on improving local grazing management and livestock production alongside investments in wildlife and tourism. In Namibia, a great deal of effort has been invested in diversifying tourism products and using different types of wildlife enterprise that benefit a broad cross-section of the community, not least women. Tanzanian WMAs have enormous potential for integrating other resource uses such as forestry, fisheries, and livestock production, but these opportunities have thus far not been developed at any scale.

- ❖ **Develop a new program that promotes the diversification of revenue streams and enterprise opportunities in WMAs from an expanded suite of natural resources with the specific aim of improving individual and household benefits through existing and new entrepreneurial natural resource-based opportunities.** Numerous examples of undeveloped opportunities were noted during this evaluation, including economic opportunities related to livestock grazing, timber, non-timber forest products such as charcoal, fisheries, and other resource uses which should be compatible with current WMA land and resource uses and which might even exceed existing options focused solely on tourism and trophy hunting. It is essential that from now on support to WMAs be approached in a multi-sectoral manner that integrates various sustainable uses of natural resources

and also serves to leverage real entrepreneurial opportunities based on this approach. While such a program will need to be carefully designed, three design components that should be considered for inclusion in the program are:

1. **Piloting and taking to scale new natural resource product value chains that benefit from and also contribute to local livelihoods, WMAs and local conservation efforts.** The successful Community Markets for Conservation (COMACO) model in Zambia, could be adapted to the Tanzanian context. COMACO produces its own brand of natural, organic goods that are produced in wildlife areas that are adopting wildlife-friendly land management activities (www.itswild.org). COMACO works to reduce poverty through actions that enhance wildlife conservation. Substantial opportunity is likely to exist for adapting existing natural resource products and developing new ones for local markets – not least the tourism industry.
2. **Pilot and take to scale the practice of paying WMA benefits to villages to support village-based microcredit activities.** A number of models exist in Tanzania that can either match villager contributions with dividends from the WMA or directly provide funding for micro-entrepreneurs. Qualified service providers must supervise these microcredit activities. Using wildlife benefits to support individual entrepreneurship from a revolving fund that grows in size could be valuable in increasing benefits to households.
3. **Enhancing the multiplier effects of tourism investments in WMAs** – considerable opportunity exists to link and incentivize tourism operators to source many of their food and other supplies from surrounding communities, and to promote products produced through initiatives similar to COMACO. This will entail working with appropriate NGO and other partners in developing produce and products of the right quality and reliability of supply for the tourism market. The potential benefits, including access to markets elsewhere, are significant.

Leveraging the financial resources and skills of the private sector as a key means for improving the sustainability and performance of WMAs.

Overall, AAs have to date not worked with the private sector sufficiently closely as a strategic partner, in a manner that would result in major improvements in the economic viability and performance of WMAs. More often than not, the private sector has had to contend with government and AA bureaucracy, and sometimes justified suspicion and malpractices in their business dealings with WMAs. While effective partnerships exist, and some WMAs are now benefiting substantially from revenues generated by the private sector, much can be done to improve how WMAs can optimally benefit from and partner with the right private sector partners.

- ❖ **Support a program with the AA Consortium and MNRT to develop meaningful incentives and support to attract private sector investment into existing WMAs.** It is critical that existing WMAs have agreements with experienced investors capable of marketing and responsibly providing the kinds of services and experiences that photographic and hunting tourists are seeking. Currently WMAs do not have this capacity, and it will likely be many years before a true tourism-oriented sense of entrepreneurship can be developed. While this should remain a long-term goal, the key over the next few years will be to ensure that as many existing WMAs as possible have profitable and successful business partnerships with private sector investors. This is likely to require that a package of support for attracting the right investors, together with good incentives is developed. One option is for the government to provide time-bound or permanent tax incentives to qualified investors investing in WMAs. Similar arrangements currently exist for investors in other contexts in Tanzania.

In providing a package of support and incentives, it is important to ensure that the right investors are attracted to invest in WMAs and that they are also held accountable:

1. **A system should be developed to identify and ‘prequalify’ investors that are likely to be good WMA partners**, so that AAs are able to have greater confidence that the investors are committed to contributing as business partners to the success of their WMA. The prequalification criteria could include demonstrating a track record of successfully working with communities elsewhere, and having achieved compliance with recognized ethical business standards. There are an increasing range of international and regional responsible tourism and ethical business standards available. Already, and increasingly in the future, there will be clear economic incentives for investors to want to be on a prequalification list, but only in so far as the WMA AAs stand committed to working with them as strategic partners. In this regard, the investors should be allowed to conduct their own economic feasibility studies and business plans for investing in WMAs over the long-term.
 2. **A mechanism should be developed for improving investor compliance in WMAs** – there is a need to ensure that contractually non-compliant private sector investors are sanctioned in an effective manner. If non-payment or other non-compliance continues and no resolution can be found, the WMA AA needs to be able to replace an investor in a legally expeditious manner with appropriate safeguards against abuse of powers.
- ❖ **Support the WD and WMA facilitators to pilot the leveraging of the skills and experience of the private sector in establishing WMAs** – recognizing that there is a need to involve the private sector earlier in the process of developing WMAs. A “provisional WMA” (see below under Design and Facilitation) should be allowed to enter into a memorandum of understanding or intent with one or more qualified private sector investors, during the establishment of the WMA. These investors are more likely to have the entrepreneurial instincts and experience needed to judge the economic viability of investments in a WMA, and can provide helpful advice to the CBO, communities and DNRAB about the potential economic viability of the WMA in relation to realistic tourism investment options possible. While there is a step in the WMA establishment process whereby the WD determines the viability of a WMA on economic grounds (amongst other criteria), the WMA regulations do not set out how this assessment should be made and the judgment of actual potential investors would be invaluable at this point in the process. **There is a clear need to develop a straightforward framework – similar to a business plan – that provides sufficient and credible and sufficient information on the potential economic viability of a WMA** and the minimum level of revenues that are likely to be realistically needed.

WMA PERFORMANCE MONITORING

As described in our findings there is no consistent monitoring of wildlife, socio-economic or other indicators that could be used to better understand the performance of the WMAs. Monitoring tools were developed in the “Indicators and Monitoring Plans for Wildlife Management Areas in Tanzania” (2004), but they are not being used. This is common in conservation and development sectors: centrally developed monitoring plans that require local participation to function rarely work. Functional monitoring systems require participation, ownership, capacity and relevance to those responsible for collecting the data. The AAs need to understand

and buy in to the importance of monitoring in order to better understand the impacts of their efforts as a tool for improving management.

Although WMAs have a wildlife focus, in reality AAs and local communities face a diverse and complex set of management challenges (resource protection, human wildlife conflict, land use change, fire, etc.) that need to be adequately addressed together if the WMAs are going to be successful in the long-term. In addition, assuming efforts to diversify natural resource uses in WMAs are successful, AAs will have to be able to track the use of a range of resources (forests, grazing, fish, etc.). It will be critical in the next phase of WMA development that simple performance monitoring become a basic management tool for the WMAs. At the same time regional experience shows that having good national level data on CBNRM outcomes and impacts is an important tool in advancing policy and building support for CBNRM. The challenge is aligning the local and national systems such that local data can be useful at the national level without being burdensome to the WMAs. Requiring difficult or expensive collection of data that is not necessarily of import to local groups is rarely successful.

Supporting the development of a WMA performance monitoring system.

There are three critical areas for monitoring that will need support over the next phase of WMA development: wildlife and ecological monitoring, socio-economic outcomes and impacts of WMAs and as it becomes necessary, monitoring other natural resource uses. Doing this successfully will require a mix of stakeholders including government (MNRT and TAWIRI), the AAC, Facilitator NGOs and of course the AAs themselves. WWF is currently working on developing a simplified tool for a more comprehensive WMA M&E system. If it is to be successful, both content and processing will need to be very simple and broad participation in its development and piloting will be necessary.

- ❖ **Support the development and implementation of a practical WMA performance monitoring system capable of serving local (AA) and national level CBNRM management needs.** As with all monitoring systems the key will be participation and building a system that is relevant to stakeholders. The Management Orientated Management System (MOMs) is a well-established, sustainable, low cost and very successful approach developed in southern Africa that is being successfully implemented in Namibia. The advantage of MOMs is that it is very adaptable and can be used for a wide variety of monitoring needs – both ecological and socio-economic. Building on the M&E system development work currently being completed by WWF, MOMs could provide a good starting point for completing development of a Tanzanian WMA performance monitoring system. Some key points for consideration:

- Building a real understanding of what is happening in terms of wildlife numbers and the actual use of wildlife corridors, dispersal and/or calving areas (ecological benefits) of WMAs will be important to support the “proof of concept” that WMAs are a valid conservation tool. It will also help managers to adjust activities to enhance conservation outcomes. However this information is also needed to improve the process of quota setting on WMAs so that AAs, district government and private sector are able to better manage (more sustainable and more profitable) hunting on WMAs.
 - Comparing wildlife data between WMAs could rely upon an approach called ‘patch occupancy,’ currently being used by WCS in landscape conservation approaches. Patch occupancy would be able to yield reliable long-term numbers on the impacts of WMAs on the distribution of key species.

- What are the realistic socio-economic impacts that WMAs are seeking for their constituent villages? It is critical that we help AAs to answer this question both individually and collectively so that they can track outcomes and impacts that are relevant.
- As other Natural Resource uses become common on WMAs simple monitoring systems will be needed to ensure sustainability.
- Disadvantaged groups (women, youth, etc.) will need to be part of the process of developing performance indicators and data will need to be disaggregated to show the differential impacts of WMA activities on those groups

DESIGN AND FACILITATION

In order to address many of the major issues related to policy and governance, economics and enterprise, and wildlife management as discussed in these conclusions and recommendations to this review, it will be important to not only consider *what* is done but *how* it is done. This brings us to the area of WMA design and facilitation, and a number of conclusions and recommendations in this section.

Optimizing the WMA establishment process and reducing donor dependency

The 12-step process to create a fully functional WMA involves extensive investment of time and resources, the cost and complexity of which has certainly been beyond the reach of member villages. Although WMA creation was a participatory process and community members were mobilized and involved by their facilitators, this long period of reliance on outside facilitators has created a serious and potentially lasting dependency. The cost of producing the key documents for attaining AA status has been exorbitantly high.

- ❖ **Support the AA consortium, private sector, WD and WMA facilitators to work together to find ways of streamlining the WMA establishment process and to reduce the costs of WMA establishment.** A useful comparison could be made with the process for establishing Village Land Forest Reserves in Tanzania, which have many similar requirements but seem to involve a much more streamlined and less costly process. The WMA establishment process could be modified to allow for the creation of “provisional WMAs” that can enter into agreements with ‘pre-qualified’ (see the Economics and Enterprise Section) private sector investors and begin earning incomes. The process could be designed so that these initial earnings are used to pay for detailed village land use plans and general management plans. This would have the advantage of encouraging more ownership by WMAs and constituent villages if done properly. A preliminary and generic resource zone management plan could be developed with minimal inputs and together with an investment agreement would serve as the basis for setting up a provisional AA. Key safeguards would need to be instituted so that the investor did not unduly influence the WMA design process, and that no permanent tourism structures and investments were made until the WMA planning process was complete. Although requiring considerable work and care to craft the details of these changes, the potential benefits are considerable.
- ❖ **The WD should, in consultation with stakeholders, establish a fair process for a village to leave a WMA** - there should be a clear and fair process for a village to formally leave or be removed from a WMA. While there is a very real fear that this will lead to dissolution of some WMAs, it is clear that disputes around this issue (e.g. in Burunge) are negatively impacting the

management of WMAs. The existence of this process, which does not have to be easy but just fair and clearly articulated, will force more negotiation between villages and will no doubt lead to changes in benefit distribution similar to what is proposed in Pawaga-Idodi. This will ultimately make for stronger WMAs. Safeguards such as outside arbitration or accepted criteria for protests would be needed to ensure villages do not use this process arbitrarily.

- ❖ **Future support to WMAs should be cognizant of and strive to design facilitation in ways that avoid donor dependency.** The kinds of capacity development offered to WMAs should be focused, well planned and must conceive an exit strategy as well as a means of measuring progress from the start of the program. This highlights the importance of addressing the economic and financial viability of WMAs, their cost structures (i.e. avoiding unsustainable management costs from per diems and other administrative charges), and business planning capacity as noted in the Economics and Enterprise section.

Reviewing the rationale for determining the size and structure of WMAs and how benefits are allocated between constituent villages

WMAs need more flexibility to negotiate terms between constituent or potentially constituent villages. Issues of inequality or feelings of unequal treatment can fester in a CBNRM structure like a WMA. In WMAs like Pawaga-Idodi, where a significant number of villages did not contribute land in the creation of the WMA but receive a share of revenues equal to those that did contribute, this issue has caused serious conflicts within the AA. CBNRM requires negotiation and discourse among beneficiaries. Rarely do communities give up the same opportunities or share equally in costs. It is therefore not fair to expect them to share all benefits equally; one of the central principles of Zimbabwe's CAMPFIRE program, for example, was that wildlife management rights and capture of benefits should be as closely aligned as possible with those communities that 'produce' wildlife i.e. those communities that live alongside wildlife and suffer the costs of co-existence. Allowing these potential conflicts to surface earlier in the implementation process would avoid the paralysis we now see in Pawaga-Idodi around the issue of benefit sharing.

There has also been a tendency to encourage or allow the formation of large WMAs. The evaluation team has noted a range of governance and management challenges associated with large WMAs visited, such as Wami-Mbiki and Pawaga-Idodi, each of which comprises more than 20 villages over a range of administrative and socio-economic contexts. It is now apparent that the complexity of these arrangements can impede transparency and accountability, as well as diluting the possibility of generating significant individual or household benefits. Disparities between 'wildlife-rich' and 'wildlife-poor' villages exist in many WMAs, and in general WMAs have not been designed to maximize benefits to those communities that bear most of the costs of living alongside wildlife. Ultimately this lack of attention to scale endangers the governance and economic viability of WMAs and should be carefully addressed in future WMA facilitation efforts and investments. Note that this seems to be more related to large numbers of villages and/or complex arrangements between districts rather than just the number of hectares covered by a WMA. Ipole for instance is of comparable size to Wami-Mbiki but with only 4 constituent villages (soon to increase to 6) it seems to be dealing better with governance and management challenges.

- ❖ **Facilitation of WMAs should allow for more negotiation and flexibility in the development of revenue sharing mechanisms and ratios between constituent villages.** Allowing villages to negotiate on the terms of revenue-sharing between communities will take longer and require compromises but is more likely to lead to sustainable WMAs. Facilitators and government should avoid imposing what they see as "fair" ways of allocating revenues.

- ❖ **WMA facilitators and the WD should give renewed consideration during the WMA establishment and planning process to the trade-offs between size, benefits, and accountability in the design of WMAs.** In many instances, the ecological benefits of having larger WMAs may not be worth the disadvantages incurred from weaker accountability and more difficulty in collectively governing and administering WMAs across numerous villages and/or districts. In some instances, the WD and WMA facilitators could consider reducing the size of current WMAs or splitting them into separate WMAs to enhance economic viability. Wami-Mbiki could, for instance, potentially be broken into three WMAs along district lines to streamline decision-making and increase accountability.

Promoting the inclusive participation and improvement of benefits for women and youth

Given the fact that wildlife conservation tends to be a male dominated sector the level of female representation in AA membership, although well short of equal, is a sign that gender has been a real concern in the development of the WMAs. However improved representation is just a first step in gender mainstreaming and the lack of gender audits or analyses and gender disaggregation in the 2004 “Indicators and Monitoring Plans for Wildlife Management Areas in Tanzania” indicate there is a greater need to focus on gender and disadvantaged groups as the next phase of WMA support unfolds. This is particularly true since future activities should involve more attention to economic development and uses of a range of natural resources.

- ❖ **Require the development and integration of gender analyses to better understand and positively impact the differential roles of and potential benefits to disadvantaged groups in the WMAs.** A WMA focused gender analysis should at a minimum identify the following:
 - Constraints to equitable participation and access of various groups (men, women, youth, etc.) to WMA activities and benefits.
 - Analyze potential impacts of WMAs on disadvantaged groups.
 - Identify ways to improve accessibility and equitability of WMA activities and benefits and to limit potential negative impacts.

Gender mainstreaming in the WMAs is a long term goal that should build on the successes seen to date in ensuring women are represented in AA membership. It will be essential to the long term success of the WMAs.

Improving the facilitation of WMAs

Broadening, indigenizing and diversifying the involvement of facilitating organizations and skill sets

An important observation from the WMA experience in Tanzania is the degree to which the WMA process has been predominantly managed and steered by a small number of large international organizations, primarily conservation organizations. This has been valuable for promoting wildlife conservation objectives and building relationships with wildlife authorities in Tanzania, but it may also contribute to some of the challenges that exist in areas such as organizational development of the AAs, enterprise and private sector engagement, and local governance accountability and transparency. These governance, organizational development and enterprise areas, which are now the key challenges for the future of WMAs, are not the core

competence of most conservation organizations. In addition, the WMA process has faced numerous policy and governance challenges during the past decade, and it is notable that until the recent formation of the AA Consortium, there has been no vocal domestic civil society constituency for reform that could demand change in a way that represents community interests; international organizations are not well positioned to lobby for devolutionary changes in CBNRM. Indeed, one of the principle lessons from CBNRM experiences elsewhere in the region has been the importance of strong national leadership, both within government and from leading civil society actors (e.g. Integrated Rural Development and Nature Conservation in Namibia; various scholars and NGOs in Zimbabwe during CAMPFIRE), in bringing about the scope of policy and institutional change that CBNRM requires. Skilled national facilitators and policy entrepreneurs who can facilitate change at the local level and in the policy arena are an indispensable component of durable CBNRM.

- ❖ **Support to WMAs should prioritize developing stronger relationships and a greater leadership role for Tanzanian civil society organizations.** Influential or well-positioned national or regional conservation or environmental organizations, or those organizations engaged on natural resource governance issues from a development or social justice perspective should be involved in order to build a stronger domestic constituency for wildlife governance improvements, including WMAs.
- ❖ **Support should also bring about greater involvement of more local grassroots organizations in facilitating WMAs as an extension of promoting a greater role for Tanzanian CSOs.** Often such organizations are much better positioned to work with AAs to address complex local governance and accountability issues, than are large international organizations. An ideal arrangement for facilitating WMAs effectively will likely involve collaborations and partnerships between strong local grassroots organizations skilled at community facilitation and governance issues, and international organizations that can leverage external skills, networks, and resources.
- ❖ **Program particular support for growing the organizational capacity and influence, as well as strengthening the internal accountability and administration, of the AA Consortium.** This Consortium has emerged over the last several years as an important national representative of the WMAs capable of engaging effectively with national policy makers and influencing policy. Going forward there will be an increased need for advocacy for WMA rights that is representative and responsive to the WMAs' real world needs. The AA Consortium should be a focus for skilled long-term organizational development support to enable it to fulfill its functions. Efforts should also focus on building links between the AA Consortium and other civil society networks involved in similar natural resource issues, such as MJUMITA.⁵
- ❖ **Seek to enroll the support of a wider range of organizations with skill and experience in promoting self-sustaining initiatives and enterprise.** New skills will need to be recruited into future WMA support programs to address priority organizational development, local governance, and enterprise development issues and challenges. Organizations with skills in working on enterprise development and value chain interventions, as is more common in the agricultural sector, should be recruited to provide some support to strengthening business planning, economic diversification, and private sector engagement in a future WMA support

⁵ Mtandao wa Jamii wa Usimamizi wa Misititu Tanzania, a network of community forest groups, which has received long-term support from the Tanzania Forest Conservation Group.

program. Similarly, expertise in organizational development will be key to strengthening AAs and other local management bodies.

ANNEX D: REVIEW OF KEY COMPARISONS BETWEEN BASELINE AND EVALUATION HOUSEHOLD SURVEYS

Context for Comparative Survey Results

Baseline Survey (2003)

Although full baseline reports were available for nine of the original 14 WMAs launched in 2003, baseline survey data were found for only four of the five WMAs chosen for fieldwork in this evaluation. The same household survey questionnaire was used in all WMAs at the baseline and consisted of 50 questions. Since these WMAs were far from operational in 2003, only eight survey questions dealt with “social dimensions.” Four of these questions dealt with villager perceptions of village leadership, actions, and responsibility and four were questions on preliminary understanding, attitudes, and suggestions regarding the future WMA. The remaining 42 questions of the baseline survey covered demographic information, water sources, sanitation, natural resource use and benefits, economic activities, asset ownership, and housing.

Evaluation Survey (2013)

The 2013 evaluation household survey was based on the 2003 survey and closely paralleled it. It contained 48 questions in its baseline follow-up section and another 42 questions on knowledge, attitudes, and perceptions of households of WMAs that had been fully operational by then for at least six years. This KAP survey explored in some detail villager awareness of the history and purposes of their WMA, understanding of its administrative and financial operations, awareness of projects and individual benefits derived from the WMA, incidence of poaching and bush fires, history of disputes following WMA creation, economic expectations and realizations, other benefits realized, positive and negative consequences from WMA creation, perceived problems with the WMA, impact on wildlife numbers, and human-wildlife conflicts. Many of these questions were based on questions used in the 2010 baseline survey for the cash-for-work program in four of the five WMAs selected for this evaluation study (all but Wami-Mbiki).

Pre-test / Post-test Comparisons

A short list of 28 key variables was prepared to permit an examination of the most important points of community-perceived change deriving from the establishment of WMAs in Tanzania. This might be considered a handy control panel of impact indicators. The baseline and follow-up questionnaires in principle contained comparable responses for the same 28 indicators, although upon closer examination it turned out that not all relevant response frequencies were provided by the 2003 survey firm. This has led to a number of missing data values.

Causality and Attribution

Focus group discussions with villagers revealed that few if any individual or household benefits have been realized by villagers surrounding the WMAs. While there have been a number of village social infrastructure or service projects, particularly in education, extremely little employment has been generated by WMAs. Perhaps the most obvious economic benefit to households from AA revenue distributions to villages has been the defraying to some degree of the household monetary levy for development projects carried out by districts in the villages. It is unclear to what degree village projects wholly or partly financed by AA distributions are additional projects made possible by revenue from the WMA, or whether they are simply

next in line on the list of village development projects and would eventually be funded by districts and households in any case.

In the absence of direct financial benefits to households from WMAs, such as those that might occur with greater employment, distribution of dividends, or availability of new household credit sources, there is little likelihood that important changes in variable values can be attributed to the impact of the local WMA. Keeping this in mind, the two sets of 28 results have been compared and contrasted. Where possible, the role that the WMA might have played in producing these changes has been examined. In the final analysis, little definite can be said with certainty about changes occurring between 2003 and 2013 in these survey results. There is simply too much extraneous causality and unclear levels of attribution for there to be any statistical validity to the changed values that do appear in the data.

Demographics and Quality of Life Indicators

- 1. In three of the four WMAs, the percentage of female-headed households has increased over the preceding 10 years. Female headedness has increased from 28% to 36% in Burunge, from 10% to 20% in Enduimet, from 28% to 29% in Wami-Mbiki, but it has fallen from 32% to 15% in Ipole.**

Comment: A rise in the proportion of female-headed households is usually due to increased male migration for employment or other economic opportunities, such as cattle grazing in the case of pastoralists. The general trend appears to favor increased female headedness, except in Ipole which is relatively isolated compared to the other WMAs. Since female-headed households tend to be poorer than others, women's income-generating and/or micro-credit activities supported by revenue from WMAs should be encouraged.

- 2. The percentage of household heads born in the same village has dropped in three of the four WMAs between 2003 and 2013. It dropped from 55% to 46% in Burunge, from 75% to 73% in Enduimet, from 44% to 31% in Ipole, but in Wami-Mbiki it increased from 59% to 66%.**

Comment: A falling proportion of household heads born in the same village indicates immigration to the area by outsiders. There appears to be significant immigration in Burunge and Ipole, but an apparent drop in immigrant movement to Wami-Mbiki. To the extent that WMAs generate economic opportunities in future, there will likely be increased population movement to these areas resulting in greater pressure on wildlife and other natural resources.

- 3. In Burunge the total number of household members has not changed over the last 10 years, remaining constant at 6.5. In Ipole household size has increased from 6 to 8.8 members. In the two remaining WMAs, household size has dropped from 9.9 to 8.8 in Enduimet and from 6.1 to 5.2 in Wami-Mbiki.**

Comment: There appears to be no clear demographic trend across these four WMAs. While increasing household size may reflect reduced out-migration in Ipole, the drop in Enduimet probably results from increasing emigration for pastoral purposes. It is also likely that increased out-migration for economic opportunities, particularly to nearby cities, explains the change in Wami-Mbiki. Burunge is both an area of immigration and out-migration along the major highway that traverses it. To the extent that some WMAs become increasingly economically viable, emigration of family members should taper off leading to increased pressure on natural resources.

4. **The percentage of households not treating their drinking water has increased from 22% to 35% in Wami-Mbiki and from 26% to 45% in Ipole, while it has dropped from 38% to 16% in Burunge and from 73% to 71% in Enduimet.**

Comment: One would expect an upward trend in household water treatment, as in Burunge and to some degree in Enduimet, but this appears not to be the case in Wami-Mbiki and in Ipole for reasons that are unclear. Since it is unlikely that populations perceive water supply to be safer than before, a possible explanation for decreased water treatment by boiling may lie in the difficulty of obtaining adequate firewood or charcoal from WMAs. This would particularly apply to the heavily wooded WMAs of Wami-Mbiki and Ipole.

5. **The percentage of households cooking with charcoal has increased in three of the four WMAs over the last 10 years. It has increased from 30% to 37% in Burunge, from 26% to 49% in Wami-Mbiki, from 33% to 37% in Ipole, but has decreased from a much lower value of 7% to 3% in Enduimet.**

Comment: The general trend is toward substantially increased charcoal use, except in Enduimet where it was not common even 10 years ago. This indicates increased pressure on local woodlands, especially in Wami-Mbiki and Ipole. As population pressure grows around WMAs, increased use of charcoal will imply a growing extraction of living trees, not just fallen or dead wood.

Assets Owned (Indicators of Wealth or Status)

6. **The average value of the house (or houses) owned by each household rose between 6 and 26 times between 2003 and 2013. In Burunge it rose from 883,997 Tsh. to 4,999,555 (5.7 times), in Enduimet from 133,356 Tsh. to 3,411,854 (25.6 times), in Ipole from 188,515 Tsh. to 2,907,661 (15.4 times), and in Wami-Mbiki from 168,336 Tsh. to 1,686,860 (10 times).**

Comment: While it is possible that some degree of dwelling addition and price inflation occurred over 10 years, it is hard to imagine that the value of household dwellings rose between 6 and 26 times during this period. Nevertheless, the data do appear to support a trend toward substantial increases in house values.

7. **While indicated as a data point in the 2003 baseline questionnaire, the number of houses owned by household is not provided in the data frequencies. The 2013 results indicate that an average household in Burunge has 1.8 houses, 2.2 in Enduimet, 2.5 in Ipole, and only 1 in Wami-Mbiki.**

Comment: Since the 2003 data are missing, a comparison cannot be made on numbers of houses (or dwellings) owned. However, the 2003 results are unlikely to have been substantially different from the 2013 results, since average household possession in 2013 was only 1.62 houses and only 4% of families claimed not to own even one. The average found for total house value per household in 2013 was 2,834,526 Tshs. (US\$ 1,741), making the average house across these WMAs equal to about 1,749,707 (US\$ 1,075) in 2013. Since this is equal to the value of about 5 cows, it seems to be a reasonable figure. This would imply that the 2003 values for houses were underestimated.

8. **The average total number of rooms in all dwellings owned per household increased from 5.4 to 5.6 in Enduimet and from 3.5 to 5.2 in Ipole. However, the number of rooms decreased from 6 to 3.7 in Burunge and from 3.5 to 2.8 in Wami-Mbiki.**

Comment: These results may indicate fission of extended families into separate and smaller households through population growth in Burunge and Wami-Mbiki, whereas in Ipole the extended family may have grown but stayed together, adding rooms to the family homestead. In Enduimet household size has decreased slightly but the number of rooms has remained essentially the same.

- 9. The percentage of households using modern, durable roofing (metal sheets or tiles) has increased in villages around all four WMAs over the last 10 years. Thus, in Burunge it increased from 48% to 58%, in Enduimet from 32% to 56%, in Ipole from 28% to 40%, and in Wami-Mbiki from 44% to 52%.**

Comment: This consistent result seems credible and is definitely an indicator of local progress and individual household quality of life improvement. While a significant trend, it is not possible to link this directly to economic impacts of the WMA. Improved roofing has undoubtedly contributed to the rise in home values. It is possible that this improvement in roofing material has been assisted by reduced levies on local citizens for public service projects made possible by WMA revenues.

- 10. The average value of bicycles owned per household decreased in Enduimet from 56,375 Tshs. to 40,265, but increased from 47,103 Tshs. to 104,905 in Burunge, from 40,546 Tshs. to 170,887 in Ipole, and from 34,926 Tshs. to 68,628 in Wami-Mbiki.**

Comment: A trend toward increased value of household bicycles owned is apparent and the lack of increase in Enduimet probably reflects the steep terrain characterizing most of these villages. It is possible that this increase in asset possession has been assisted by reduced levies on local citizens for public service projects made possible by WMA revenues.

- 11. The 2003 survey did not report on the number of bicycles owned per household, although the question was part of the survey questionnaire along with value. Average number of bicycles owned by household in 2013 is 1 in Burunge, 0.4 in Enduimet, 1.5 in Ipole, and 1 in Wami-Mbiki.**

Comment: The failure to report data collected in the 2003 survey on number of bicycles is unfortunate. Since the number of bicycles was relatively low per household in 2013, some of the increased value may be due to increased cost over 10 years.

- 12. Average value of radios owned per household increased in all four WMAs. In Burunge it increased from 24,067 Tshs. to 48,876, from 19,623 Tshs. to 39,297 in Enduimet, from 28,175 Tshs. to 57,298 in Ipole, and from 14,498 Tshs. to 20,939 in Wami-Mbiki.**

Comment: This is a consistent result that seems to reflect increasing household size and prosperity. It is not clear that it can be directly or indirectly related to WMA income distributed to village, although it might reflect reduced levies on households for local public service projects.

- 13. Data for the average number of radios per household is not presented in the 2003 survey data, preventing a comparison with number possessed in the current survey. In 2013, the number of radios owned per household was 1.4 in Burunge, 1 in Enduimet, 1.2 in Ipole, and 0.7 in Wami-Mbiki.**

Comment: Every household has at least one radio, except in Wami-Mbiki. Since the number of radios in 2013 was relatively low, some of the increased value may be due to increased cost over 10 years.

- 14. Average value of furniture owned by households has increased in all four areas by from 7 to 67 times. In Burunge the value of all furniture increased from 23,310 Tshs. to 397,625 (17 times), from 6,064 Tshs. to 404,136 in Enduimet (67 times), from 11,106 Tshs. to 332,549 in Ipole (30 times), and from 19,079 Tshs. to 139,453 in Wami-Mbiki (7 times).**

Comment: The trend here is clearly toward much greater furniture value. While some increase in furniture number and value would be expectable over the course of 10 years, this increase in furniture value by a factor of anywhere between 7 and 67 times seems unlikely and parallels the huge increase in house values. Nevertheless, there does appear to be a significant trend upward in the value of furniture owned by the average household.

- 15. Values for the average total number of pieces of furniture are not reported by the 2003 survey, in spite of being in the questionnaire, so that a comparison cannot be made with the current survey. However, the average number now of pieces of household furniture is 5 in Burunge, 7.4 in Enduimet, 10.2 in Ipole, and 3 in Wami-Mbiki.**

Comment: Not having the 2003 results for this question is unfortunate, since a count of items would be more useful than values estimated by household respondents. Some of the increased value must be due to increased number of items, while a part must also be ascribed to increased cost.

- 16. The percentage of households owning livestock increased from 80% to 82% in Burunge, but decreased in the three other WMAs between 2003 and 2013. Thus, ownership decreased from 97% to 94% in Enduimet, from 78% to 63% in Ipole, and from 63% to 43% in Wami-Mbiki.**

Comment: This general decrease in proportion of households owning livestock could be interpreted as an overall loss of wealth by these communities between the two surveys. However, we see below that the average household value of livestock has actually increased sharply. This indicates a concentration of this wealth among fewer households.

- 17. While the proportion of households owning livestock seems to have fallen, the average value of cattle owned per household has risen sharply. In Burunge, value of cattle owned rose from 143,044 Tshs. to 3,791,148 (27 times), from 128,127 Tshs. to 6,426,824 in Enduimet (50 times), from 65,139 Tshs. to 4,886,935 in Ipole (75 times), and from 96,775 Tshs. to 212,621 in Wami-Mbiki (2 times).**

Comment: This remarkable rise in value of cattle owned from 120% in Wami-Mbiki to an increase of up to 75 times in Ipole once again parallels house and furniture value increases. This rise in value has occurred at the same time that the proportion of households holding livestock has decreased. It is considerably doubtful that increased average household wealth and inflation could account for such remarkable rises in cattle values. The 2003 value estimates must have been undervalued.

- 18. Although the values for average number of cattle owned are missing from the 2003 survey data, those for 2013 indicate relatively modest numbers of cattle owned, except in Ipole. In Burunge average ownership is 6.3 cows, in Enduimet 15.9 cows, 24.4 in Ipole, and 0.7 in Wami-Mbiki.**

Comment: When comparing number of livestock to average value owned, we find that the average cow in Burunge is worth Tshs. 601,770, Tshs. 404,203 in Enduimet, Tshs. 200,284 in Ipole, and Tshs. 303,744 in Wami-Mbiki. These average cow values are reasonable, so that number of head and value of cattle owned are at least consistent in the 2013 survey and may be fairly accurate. This places the 2003 value estimates in doubt, although some of increased value could be due to increased number.

- 19. Average value of sheep owned per household increased in three WMAs, but decreased in Wami-Mbiki. Value of sheep increased from 8,800 Tshs. to 149,831 in Burunge (17 times), from 16,926 Tshs. to 867,269 in Enduimet (51 times), from 2,727 Tshs. to 100,484 in Ipole (37 times) between 2003 and 2013. On the other hand, average value dropped from 10,389 Tshs. to 4,783 in Wami-Mbiki.**

Comment: Except for Wami-Mbiki, value of sheep owned per household has increased a remarkable 17 to 37 times in the other three WMAs. This rise in value parallels a rise in value of cattle owned. Such remarkable increases in household livestock value must reflect overly low values recorded in 2003, since respondents were unlikely to exaggerate their livestock possession in 2013.

- 20. The value for number of sheep owned is missing from the 2003 survey data results, but in 2013 we find that 4.7 sheep were owned in Burunge, 19.4 in Enduimet, 3.4 in Ipole and 0.1 in Wami-Mbiki.**

Comment: Dividing number of sheep owned in 2013 into values declared in the same survey would put the average value of a sheep at Tshs. 31,879 in Burunge, Tshs. 44,705 in Enduimet, Tshs. 29,554 in Ipole, and Tshs. 47,830 in Wami-Mbiki. These values are fairly consistent with actual values for sheep in Tanzania, leading one to believe that total value given is fairly accurate. This would tend to indicate that sheep value was underestimated in 2003.

- 21. The average value for goats rose in all four WMAs between 2003 and 2013. In Burunge, goat value rose from 11,825 Tsh. to 406,068 (34 times), from 21,420 Tsh. to 943,087 in Enduimet (44 times), from 14,857 Tsh. to 174,032 in Ipole (12 times), and from 13,058 Tsh. to 132,329 in Wami-Mbiki (10 times).**

Comment: The average value of goats owned per household in these WMAs rose anywhere from 10 times in Wami-Mbiki to 44 times in Enduimet. Once again this remarkable rise in household value parallels other livestock types, houses, and furniture. If under-reporting characterized the 2003 survey, it was at least consistent across these asset types.

- 22. The average number of goats owned per household is missing in the 2003 data, but the 2013 data indicate that Burunge had 9 goats per household, 19.6 in Enduimet, 7.2 in Ipole, and only 2 in Wami-Mbiki.**

Comment: Comparing number and value of goats owned per household puts the average value of a goat in these WMAs at Tshs. 45,119 in Burunge, Tshs. 48,117 in Enduimet, Tshs. 24,171 in Ipole, and Tshs. 66,165 in Wami-Mbiki. Although more variable between communities than would be expected, these values for goats are in the appropriate range for Tanzania. Since price inflation between 2003 and 2013 in Tanzania (about 220%) cannot explain the huge rise in livestock values, it is likely that assets were undervalued in the 2003 survey for reasons not clear.

- 23. Although there was a question on this in the 2003 questionnaire, that survey did not report on the number of acres owned per household. It did report on the average value of acreage owned. Thus, in 2003 average landholding value was Tshs. 132,246 in Burunge, Tshs. 391,526 in Enduimet, Tshs. 6,558 in Ipole, and 32,947 in Wami-Mbiki.**

Comment: The 2013 survey did not seek the average value of land ownership, since it was assumed that number of acres owned would be more accurate. Consequently, no comparison can be made between the two surveys regarding value of agricultural land owned on average by each household.

- 24. The 2013 survey sought landholding ownership in acres from respondents, although this was not reported in 2003. In Burunge average landholding per household was 6.7 acres, 5.1 in Enduimet, 16.3 in Ipole, and 5.1 acres in Wami-Mbiki.**

Comment: No comparison can be made between the two surveys regarding amount of the number of acres of agricultural land owned on average by households in the various WMAs, although the data should have been collected in both surveys.

Household Production and Investment

- 25. The percentage of households engaged in cash crop farming as their primary activity in the rainy season declined in 3 WMAs, although it increased in Ipole from 25% to 34%. In Burunge this percentage decreased from 25% to 11%, from 25% to 5% in Enduimet, and from 17% to 15% in Wami-Mbiki.**

Comment: There appears to be a trend downward in proportion of households engaged in cash cropping as a primary activity in most of these WMAs, but it is only really significant in Burunge and especially Enduimet. Why Ipole should have reversed this trend is unclear, but it may have to do with greater availability of land and potential for expanding into cash cropping.

- 26. The two surveys also queried households on number of bags (100 kgs) of maize they produced during the two rainy seasons (short and long rains) combined. This production decreased in three WMAs, according to survey results, but increased strongly in Burunge from 19 bags to 139. On the other hand, average household maize production dropped from 14 bags to 9 in Enduimet, from 11 bags to 9 in Ipole, and from 11 bags to 5 in Wami-Mbiki.**

Comment: In all but Burunge WMA, the amount produced was minimal, ranging from 5 to 9 bags, compared to 139 bags for Burunge. Perhaps rainfall conditions can explain the strong rise in Burunge, and the fall-off in production in the other three WMAs.

- 27. The average number of household members earning some employment income, increased in Enduimet, but decreased in the other three WMAs. In Enduimet it increased from 1 person to 2, while it dropped in Burunge from 2.4 persons to 0.4, from 1.6 to 1.2 persons in Ipole, and from 1.4 to 1 person in Wami-Mbiki.**

Comment: There appears to be a trend downward in household employment between the two surveys, although Enduimet bucks this trend and household employment has doubled. The general lack of employment increase in these WMA communities is confirmed by focus group discussions.

28. Borrowing money can be seen as a proxy indicator for productive investment. With respect to the percentage of households borrowing money in 2013 compared to 2003, we note that this activity decreased in Burunge from 52% to 46%, but increased in Enduimet from 38% to 46%, from 19% to 40% in Ipole, and from 33% to 59% in Wami-Mbiki.

Comment: There is a trend here that households in three of the WMAs appear to be increasing their economic activity, but it is not clear that this has anything to do with the WMA in their area. Why there should be a decrease in the proportion of households borrowing money in Burunge is unclear.

Key Comparisons between 2003 Baseline and 2013 Evaluation Household Surveys

Burunge WMA

Variable	2003 Survey	2013 Survey	Change	Direction
Percentage of female-headed households	28.3	36.1	7.8	Increased
Percentage of household heads born in the same village	55.0	45.9	-9.1	Decreased
Average total number of household members	6.5	6.5	0	No change
Percentage of households not treating their drinking water	38.3	16.2	-22.1	Decreased
Percentage of households using charcoal for cooking	29.8	37.2	7.4	Increased
Average value of houses (dwellings) owned per household (TSh)	883,997	4,999,555	4,115,558	Increased
Average number of houses (dwellings) owned per household	Missing	1.8	--	--
Average total number of rooms in all household dwellings	6.0	3.7	-2.3	Decreased
Percentage of households using modern/durable roofing – metal sheets or tiles	48.3	58.1	9.8	Increased
Average value of bicycles owned per household (TSh)	47,103	104,905	57,802	Increased
Average number of bicycles owned per household	Missing	1.0	--	--
Average value of radios owned per household (TSh)	24,067	48,876	24,809	Increased
Average number of radios owned per household	Missing	1.4	--	--
Average total value of furniture owned (TSh) per household (tables, chairs, beds)	23,310	397,625	374,315	Increased
Average total number of pieces of furniture owned per household (tables, chairs, beds)	Missing	5.0	--	--
Percentage of households owning livestock	79.7	82.4	2.7	Increased
Average value of cattle owned per household (TSh)	143,044	3,791,148	3,648,104	Increased

Average number of cattle owned per household	Missing	6.3	--	--
Average value of sheep owned per household (TSh)	8,800	149,831	141,031	Increased
Average number of sheep owned per household	Missing	4.7	--	--
Average value of goats owned per household (TSh)	11,825	406,068	394,243	Increased
Average number of goats owned per household	Missing	9.0	--	--
Average value of acres of land owned per household (Tsh)	132,246	Missing	--	--
Average number of acres of land owned per household (acres)	Missing	6.7	--	--
Percentage of households in cash crop farming as primary activity in the wet/rainy season	25.0	10.8	-14.2	Decreased
Average number of units of maize harvested -- short and long rains combined	19.4	139.0	119.6	Increased
Average number of household members currently earning some employment income	2.4	0.4	-2.0	Decreased
Percentage of households that have borrowed money	52.4	45.9	-6.5	Decreased

NB: The missing data in the baseline report is in reporting. The questionnaires of the baseline and evaluation surveys both contain a place to report on number and estimated value of assets. The 2003 survey tables do not report the number of assets, only the mean value of these items. The 2013 survey reports on both number and estimated value of all but landholding. The average number of acres possessed per household is reported in the 2013 survey, but not the estimated mean value of the land as in the case of the 2003 survey.

**Key Comparisons between the 2003 Baseline and 2013 Evaluation Household Surveys
Enduimet WMA**

Variable	2003 Survey	2013 Survey	Change	Direction
Percentage of female-headed households	10.1	19.9	9.8	Increased
Percentage of household heads born in the same village	75.4	72.8	-2.6	Decreased
Average total number of household members	9.9	8.8	-1.1	Decreased
Percentage of households not treating their drinking water	72.5	70.9	-1.6	Decreased
Percentage of households using charcoal for cooking	6.6	3.3	-3.3	Decreased
Average value of houses (dwellings) owned per household (TSh)	133,356	3,411,854	3,278,498	Increased
Average number of houses (dwellings) owned per household	Missing	2.2	--	--
Average total number of rooms in all household dwellings	5.4	5.6	0.2	Increased
Percentage of households using modern/durable roofing – metal sheets or tiles	32.4	55.6	23.2	Increased
Average value of bicycles owned per household (TSh)	56,375	40,265	-16,110	Decreased
Average number of bicycles owned per household	Missing	0.4	--	--
Average value of radios owned per household (TSh)	19,623	39,297	19,664	Increased
Average number of radios owned per household	Missing	1.0	--	--
Average total value of furniture owned (TSh) per household (tables, chairs, beds)	6,064	404,136	398,072	Increased
Average total number of pieces of furniture owned per household (tables, chairs, beds)	Missing	7.4	--	--
Percentage of households owning livestock	97.1	94	-3.1	Decreased
Average value of cattle owned per household (TSh)	128,127	6,426,824	6,298,697	Increased
Average number of cattle owned per household	Missing	15.9	--	--
Average value of sheep owned per household (TSh)	16,926	867,269	850,343	Increased
Average number of sheep owned per household	Missing	19.4	--	--
Average value of goats owned per household (TSh)	21,420	943,087	--	--
Average number of goats owned per household	Missing	19.6	--	--
Average value of acres of land owned per household (TSh)	391,526.4	Missing	--	--
Average number of acres of land owned per household (acres)	Missing	5.1	--	--
Percentage of households in cash crop farming as primary activity in the wet/rainy season	25.0	5.3	-19.7	Decreased
Average number of units of maize harvested -- short and long rains combined	14.3	9.2	-5.1	Decreased
Average number of household members currently earning some employment income	1	2	1	Increased

Percentage of households that have borrowed money	38.1	45.7	7.6	Increased
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NB: The missing data in the baseline report is in reporting. The questionnaires of the baseline and evaluation surveys both contain a place to report on number and estimated value of assets. The 2003 survey tables do not report the number of assets, only the mean value of these items. The 2013 survey generally includes data on number and estimated value of all assets but landholding. The average number of acres possessed per household is reported in the 2013 survey, but not the estimated mean value of the land as in the case of the 2003 survey.

**Key Comparisons between the 2003 Baseline and 2013 Evaluation Household Surveys
Ipole WMA**

Variable	2003 Survey	2013 Survey	Change	Direction
Percentage of female-headed households	31.6	14.5	-17.1	Decreased
Percentage of household heads born in the same village	43.9	30.6	-13.3	Decreased
Average total number of household members	6.0	8.8	2.8	Increased
Percentage of households not treating their drinking water	26.3	45.2	18.9	Increased
Percentage of households using charcoal for cooking	32.5	37.1	4.6	Increased
Average value of houses (dwellings) owned per household (TSh)	188,515	2,907,661	2,719,146	Increased
Average number of houses (dwellings) owned per household	Missing	2.5	--	--
Average total number of rooms in all household dwellings	3.5	5.2	1.75	Increased
Percentage of households using modern/durable roofing – metal sheets or tiles	28.1	40.3	12.2	Increased
Average value of bicycles owned per household (TSh)	40,546	170,887	130,341	Increased
Average number of bicycles owned per household	Missing	1.5	--	--
Average value of radios owned per household (TSh)	28,175	57,298	29,123	Increased
Average number of radios owned per household	Missing	1.2	--	--
Average total value of furniture owned (TSh) per household (tables, chairs, beds)	11,106	332,549	321,443	Increased
Average total number of pieces of furniture owned per household (tables, chairs, beds)	Missing	10.2	--	--
Percentage of households owning livestock	78.2	62.9	-15.3	Decreased
Average value of cattle owned per household (TSh)	65,139	4,886,935	4,821,796	Increased
Average number of cattle owned per household	Missing	24.4	--	--
Average value of sheep owned per household (TSh)	2,727	100,484	97,757	Increased
Average number of sheep owned per household	Missing	3.4	--	--
Average value of goats owned per household (TSh)	14,857	174,032	159,175	Increased
Average number of goats owned per household	Missing	7.2	--	--
Average value of acres of land owned per household (TSh)	6,558	Missing	--	--
Average number of acres of land owned per household (acres)	Missing	16.3	--	--
Percentage of households in cash crop farming as primary activity in the wet/rainy season	25.2	33.9	8.7	Increased
Average number of units of maize harvested -- short and long rains combined	11.0	8.7	-2.3	Decreased

Average number of household members currently earning some employment income	1.6	1.2	-0.4	Decreased
Percentage of households that have borrowed money	19.3	40.3	21.0	Increased

NB: The missing data in the baseline report is in reporting. The questionnaires of the baseline and evaluation surveys both contain a place to report on number and estimated value of assets. The 2003 survey tables do not report the number of assets, only the mean value of these items. The 2013 survey reports on both number and estimated value of all but landholding. The average number of acres possessed per household is reported in the 2013 survey, but not the estimated mean value of the land as in the case of the 2003 survey.

**Key Comparisons between the 2003 Baseline and 2013 Evaluation Household Surveys
Wami-Mbiki WMA**

Variable	2003 Survey	2013 Survey	Change	Direction
Percentage of female-headed households	27.6	29.0	1.4	Increased
Percentage of household heads born in the same village	58.8	66.2	7.4	Increased
Average total number of household members	6.1	5.2	-0.9	Decreased
Percentage of households not treating their drinking water	21.5	34.8	13.3	Increased
Percentage of households using charcoal for cooking	25.7	49.3	23.6	Increased
Average value of houses (dwellings) owned per household (TSh)	168,336	1,686,860	1,518,524	Increased
Average number of houses (dwellings) owned per household	Missing	1.0	--	--
Average total number of rooms in all household dwellings	3.5	2.8	-0.7	Decreased
Percentage of households using modern/durable roofing – metal sheets or tiles	43.6	52.2	8.6	Increased
Average value of bicycles owned per household (TSh)	34,926	68,628	33,702	Increased
Average number of bicycles owned per household	Missing	1.0	--	--
Average value of radios owned per household (TSh)	14,498	20,939	6,441	Increased
Average number of radios owned per household	Missing	0.7	--	--
Average total value of furniture owned (TSh) per household (tables, chairs, beds)	19,079	139,453	120,374	Increased
Average total number of pieces of furniture owned per household (tables, chairs, beds)	Missing	3.0	--	--
Percentage of households owning livestock	63.2	42.5	-20.7	Decreased
Average value of cattle owned per household (TSh)	96,775	212,621	115,846	Increased
Average number of cattle owned per household	Missing	0.7	--	--
Average value of sheep owned per household (TSh)	10,389	4,783	-5,606	Decreased
Average number of sheep owned per household	Missing	0.1	--	--
Average value of goats owned per household (TSh)	13,058	132,329	119,271	Increased
Average number of goats owned per household	Missing	2.0	--	--
Average value of acres of land owned per household (Tsh)	32,947	Missing	--	--
Average number of acres of land owned per household (acres)	Missing	5.1	--	--
Percentage of households in cash crop farming as primary activity in the wet/rainy season	16.9	14.5	-2.4	Decreased

Average number of units of maize harvested -- short and long rains combined	11.0	4.9	-6.1	Decreased
Average number of household members currently earning some employment income	1.4	1.0	-0.4	Decreased
Percentage of households that have borrowed money	33.3	59.4	26.1	Increased

NB: The missing data in the baseline report is in reporting. The questionnaires of the baseline and evaluation surveys both contain a place to report on number and estimated value of assets. The 2003 survey tables do not report the number of assets, only the mean value of these items. The 2013 survey reports on both number and estimated value of all but landholding. The average number of acres possessed per household is reported in the 2013 survey, but not the estimated mean value of the land as in the case of the 2003 survey.

ANNEX E: GLOBAL RESULTS OF THE 2013 SURVEY (5 WMAS)

Demographic Information

1. The enumerators interviewed 741 household in 15 villages around 5 WMAs, ranging from 24 to 37 respondents in each village (average of 29.6).
2. 22.7 % of these households were headed by females and 77.6 % by males.
3. In 87.4% of cases, the respondent was the head of the household surveyed and in 12.6% of cases it was someone else.
4. Average age of the respondent was 43.4 years old, ranging from 17 to 99 years.
5. Males were 71.8 percent of respondents, females were 28.2 percent.
6. Average total household size was 6.7 persons with 46.7 % of these under the age of 15. Household size ranged from 1 person to 65.
7. In these households, there were 1,141 boys under 15, of whom 682 (59.8%) were attending school. There were 1,163 girls under 15, of whom 674 (58%) were attending school.
8. 14.8% of household heads had no formal education, 9.2% had some primary education, and 67.5% had completed primary school. Only 7.2% had some or a complete secondary education.

9. 40.6 % of respondents were not born in their current village and about one-fifth of these (8.1 % of all respondents) moved there since 2003, the beginning of formal WMA creation.
10. 26.8% of respondents came from another district in the same or different region.
11. 76.9 % of respondents were principally farmers, while 16.9 % were primarily pastoralists. Only 6.2 % of respondents declared other occupations.
12. 23.3% of households declared that a household member had moved away from the village; all of these emigrants were 18 years old or less.

Water Supply

13. Over one third of households (36.2%) rely in part on ponds and dams for their water supply, while 21.7% use a village well, 14.7 use their own household open well, and 14 % use rivers and streams. Multiple responses were permitted to this question, so that many households used several sources.
14. 52.7 % of respondents obtain water in less than 15 minutes during the wet season and another 30.5% do so in less than 30 minutes. Only 13.0 % require from 30 to 60 minutes and another 3.9% require more than one hour to secure water.
15. 37.7 % obtain water in less than 15 minutes during the dry season and another 22.3% do so in less than 30 minutes. However, 17.4% require between 30 minutes to one hour and another 22.6% require more than one hour to obtain water.
16. 44.7% of households do not treat their water and another 30.4% boil it. The remaining 25.0% filter it, treat it chemically, or let it settle.

Sanitation Situation

17. 6.5% of households have no toilet facility, while another 88.3% use a pit latrine. The remaining 5.3% use a VIP latrine, public toilet, or a pour-flush toilet.
18. 70.4% of households dispose of solid waste by burying it in their compound, and another 8.1% burn it there. Some 12.4% dump solid waste anywhere. The remaining 9.1% of households dump it in a special neighborhood place, or use a local or community provided disposal system.

Natural Resource Use

19. 96.9% of households use firewood for cooking and 31.2% use charcoal for the same purpose. Only a handful of households overall use a biogas or kerosene stove and no one uses an electric hotplate or cooker.
20. 75% of households use wooden building poles once annually, but very few extract them more often. 23.2% claim never to use them. Much the same is true for thatching grass. 70.0% claim to use it once annually, and 24.7% say they never harvest it.
21. 93.0 % of households claim never to consume bushmeat. Only 7.0% say they consume it monthly or once annually.
22. 40.9% of households claim to harvest medicinal plants monthly and another 16.1% do so annually. Some 13.7% of households claim to do so daily or weekly. Even so, 29.4% claim never to harvest medicinal plants from their environment.
23. While 44.4% of households make annual use of pottery soil, another 47.2% claim never to do so.
24. 43.0% of households make daily use of grazing grass, but 54.5% claim never to do so.
25. Some 92.2% of households use firewood on a daily basis, and only 3.8% of households claim never to do so. On the other hand, 19.8% use charcoal on a daily basis, 9.9% do so on a weekly basis, and 7% on a monthly basis. Even so, 61.9% of households claim never to use charcoal.
26. 97.7% of households say they never take honey from the environment for household use. 98.6% of households say they never use any other natural resource in household consumption.
27. In terms of perception of current availability of these natural resources used by households, 83.1% of respondents say there is no bushmeat available, and 29.3% say there is no charcoal availability. 98.1% also say there is no honey available in the environment.
28. On the other hand, 49.4% of households see plenty of grazing grass available, 57.2% see plenty of medicinal plants available, 46.8% plenty of thatching grass, but 65.4% see building pole availability as low to medium.

Economic Activities

29. During the dry season 24.7%, 21.2%, and 15.5% of households, respectively, ranked their most important productive activity as livestock raising (herding), small business activity, or food crop production.
30. On the other hand, during the wet season, 57.1%, 24.2%, and 9.0% of households, respectively, ranked their most important productive activity as food crop production, cash crop farming, and livestock raising (herding). Small business activities dropped to 3.8% as the first choice of households.
31. Following the creation of the WMA locally between 93.7% and 99.9% of households said that there had been no increase in their productive activities. These activities include cash crop farming, beekeeping/honey production, food crop production, livestock raising/herding, small business/food vending, wage employment/casual labor, vegetable farming, handicrafts for sale, water vending, game meat business, tourist business, and any other productive activities.
32. On the other hand, following the creation of the WMA locally between 95.3% and 100% of households said that there had been no decrease in their productive activities. These activities include cash crop farming, beekeeping/honey production, food crop production, livestock raising/herding, small business/food vending, wage employment/casual labor, vegetable farming, handicrafts for sale, water vending, tourist business, and any other productive activities. The game meat business, however, had decreased by 87.4%.
33. The average earnings per household during the last dry season from all household productive activities was Tshs. 722,800 (\$438) and another Tshs. 1,092,615 (\$662) during the rainy (wet) season.
34. Beyond the respondent, 54.3% of households had no one in the household currently earning income from a job and/or business and/or part-time work. 31.1% of households had 1 person earning income, 7.3% had 2 persons, and 3.0% had 3 persons earning income. Only 4.2% of households had 4 or more persons earning income beyond the head of household (respondent).
35. 92.6% of household do not receive any additional Income beyond subsistence and wage activities, such as renting a house or renting equipment to someone.

36. 98.0% of households did not engage in any wildlife-related business activity. A total of 14 persons out of 741 respondents (1.9%) indicated that someone in their household earned some income in photographic tourism, curio/souvenir goods selling, partial or full-time employment, bushmeat selling, beekeeping, or other activity.
37. Earnings for those few engaged in wildlife-related activities had not significantly changed following the creation of the WMA.
38. Only 4.2% of respondents indicated that someone in their household (including themselves) engaged in some other type of natural resource-related activity, such as honey collection or bushmeat.

Asset Ownership

39. In terms of major assets owned by households, 1 house is owned by 58.1% of respondent households, although 3.9% of households own none. On the other hand, 23.8% of households claim to own 2 houses, 6.9% own 3, and 3.2% own 4. Some 3.3% of households claim to own 5 or more houses. Wives living in separate dwellings within compounds would be considered to be in separate houses.
40. Of the 21 other asset types reported on by the survey, those that might respond to clearly improved or improving economic circumstances probably include: motorcycles, bicycles, ploughs, kerosene stoves, radios, pieces of furniture, improved charcoal stoves, mobile phones. Hoes are the most common tool asset owned, and over four-fifths of households (82.2%) own between 1 and 6 hoes (only 4.3% households have none). On the other hand, current ownership of 12 items does not attain even 10% (carts, boats, tractors, sewing machines, generators, wheelbarrows, TVs, water tanks, motor vehicles, milling machines, axes and bush knives, and shops).
41. Average household possession of these 9 most common assets currently is: motorcycles (0.12); bicycles (0.91); ploughs (0.23); kerosene stoves (0.13); radios (1.04); pieces of furniture (5.78); improved charcoal stoves (0.24); mobile phones (1.34), and hoes (3.97).
42. Livestock should be a good indicator of household wealth, even those not primarily pastoralist. Cattle, sheep, and goats serve both as bank and investment. A majority of households do not own livestock. Some 68.2% of respondents do not own cattle, 74.5% do

not own sheep, 60.7% own no goats, and over half (51.1%) own no chickens or other poultry.

43. The average number of cattle, sheep, and goats can be calculated from these results: on average these households possess 7.1 head of cattle, 5.5 sheep, and 7.8 goats.
44. Less than 10% of households own donkeys, rabbits, or pigs. 92.4%, 93.5%, and 99.7% of households claim not to own, respectively, any donkeys, pigs, or rabbits.
45. 68.3% of households responded that they kept livestock, and 31.7% saying that they did not have livestock. This response is contradicted by answers to amount of livestock possession above. According to those responding (509 households) to this question, average livestock possession was: 11.7 cattle; 7.7 sheep, and 11.3 goats.
46. 95.4% of respondents indicate that their household cultivates land, while 4.6% say they do not.
47. Taking two basic subsistence crops grown during both the short and long rainy seasons, households declared a total average maize production of 1,192.9 bags and a total average bean production of 370.9 bags.
48. 85.2% of respondents say that their household owns agricultural land, while 14.7% say they do not.
49. Amount of acreage owned by households with land ranges from 0.25 acre to 230 acres with average possession of 6.9 acres.
50. Only 11.6% of responding households say they own a particular space for grazing, while 88.4% do not. This corresponds to the generally collective nature of grazing land in villages.
51. 45.6% of respondents say that they have never borrowed money from any source. Otherwise, households say they borrow from: extended family member or other relative (21.1%); rotating village savings and lending association (9.9%); friends (8.8%); other microfinance institutions (5.9%); SACCO (3.9%); commercial bank (2.8%); and others (including money lenders (1.9%)).

52. Altogether some 22.5% of households do borrow money from financial institutions, whether from a commercial bank or various microfinance institutions or cooperatives (MFIs).
53. Among households that do borrow money, they tend to do so only for agriculture. Thus, 59% borrow for agricultural activities, but 41% say they do not. Large majorities declare they do not borrow for purchasing livestock (94.4%), fertilizer or veterinary supplies (93.7%), household health expenses (72.8%), travel expenses (97.3%), special ceremonies and weddings (99.3%), education expenses (81.6%), and business (89%). Only a handful of people borrow for other reasons. Beyond agriculture, the two most common reasons for borrowing are for health and education expenses, but only a minority does so.

Housing

54. Households have an average of 4.1 rooms per household, but sometimes have multiple houses. The number of total rooms ranges from 0 to 32 among respondents. About half of respondents (51.2%) have 3 rooms, undoubtedly in just one house. Nearly four-fifths of households (78.5) have up to 5 rooms.
55. A majority of household walls and floors are of traditional materials: 60.4% of walls and 64.7% of floors are considered built of traditional materials. On the other hand, 57.8% of roofs are declared to be of durable/modern materials. This probably means metal roofs over thatching.
56. Two-thirds of households (66.1%) use either a muzzle-loader lamp (36.7%) or a hurricane lamp (29.4%) for their main source of household lighting. Another 17.3% use a Chinese lamp, and 12.4% use solar power. Only 2.3% of households used a generator, and only 6 respondents of 741 have electricity (hook-up).

Knowledge, Attitudes, and Perceptions (KAP)

57. 33.1% do not know how long the WMA has been operational in their area, while those that say they do have estimates ranging up to 43 years. Some 26.1% said less than one year. Beyond that, the most frequent response -- 10.4% of respondents -- is 10 years, which is about right. Only a small minority seem to know how long the WMA has been operational in their area.

58. 96.2% of respondents do not know how much land their village gave to the WMA to become a member village. 95.7% of respondents indicated their household turned over no land of its own to form the WMA.
59. Some 23.3% indicated that they did not know what the purposes of the WMA were. Some 27.1% of respondents indicated a purpose of the WMA was community participation, 18.1% that new benefits were to be shared, 66.5% said that a purpose was to encourage conservation of wildlife and other resources, and 96.0% indicated that there were no other purposes than those.
60. 89.3% of respondents indicated that they attend village general assembly meetings, while 10.7% do not. Of those attending meetings, 59.2% recalled attending 2 or 3 meetings over the previous year. 11.8% and 17.5% of respondents recalled attending 1 or 4 meetings, respectively.
61. Of those attending village general assemblies, only 21.1% remembered discussing resource use conflicts linked to WMAs, 12.3% remembered discussing investment contracts, 33.1% remembered discussions on benefit sharing mechanisms, 23.6% remember discussing approval of annual plans and budgets, 34.2% discussed wildlife and resources conservation, and 84.4% said there were no other issues they could recall.
62. 45.6% indicated that discussions were held in village general assemblies on administrative and financial operations of the WMA, although 39% said this was not the case. 13.8% did not know or could not remember.
63. 61% of respondents said they felt that they did not know the major rules and regulations concerning the WMA, while 39% responded that they did know them.
64. Regarding knowledge of who was in charge of making most decisions regarding use of resources in the WMA, 39% of respondents said that they did not know. 24.2% and 21.5% indicated the AA or the Village Council, respectively, while 13.4% indicated that the Wildlife Division was in charge of decision making.
65. 59.1% of respondents felt they did know who their AA representatives were and how long they would remain in place, while 14.4% did not know and 26.5% were unsure.

66. 78% indicated that their village council fully accepted decisions made by the AA regarding use of village lands placed within the WMA, while 4.9% said no, 17.1% said they did not know or were unsure.
67. 43.5% felt that the promises made concerning the advantages of creating the WMA had been kept, while another 39.2% said no. 17.3% said they were unsure or did not know.
68. 80.7% felt that the village had done the right thing in agreeing to join the WMA, while only 11.2% said no. 8.1% did not know or were unsure.
69. 46.4% felt that the AA regularly presented the annual income and expenditure report, while 37% said no. Another 16.6% were unsure or did not know.
70. 46.3% felt the AA acted responsibly and fairly, while 49.5% said they did not. Only 3.8% were unsure or did not know.
71. 75.8% said they were aware of a project in their village that had benefited from income generated by the WMA, while 15% said no. Another 9.2% were unsure or did not know.
72. Among those aware of a WMA financed project in their village, 24.2% indicated a health post or clinic, 72.7% educational infrastructure (repair, renovation, or construction of primary school classrooms or teachers' houses), 11.1% indicated repair or construction of community water systems, 23.2% repair or construction of village administrative structures, and 21% indicated awareness of paying school fees for orphaned or poor children.
73. On the other hand, 99.5% of respondents indicated that no dams were constructed for wildlife or cattle, 99.8% said that there had not been any project providing solid waste disposal or a dump site, 98.8% were sure that no roads were repaired or constructed from income generated by the WMA, and 97.3 said no support was given to university students. Some 94.3 of those aware of WMA-related projects said there were no other types financed by the WMA.
74. 36.8% knew of individuals who had benefited from income generated by the WMA, while 45.6% did not. Another 17.1% were unsure or did not know.
75. 66.1% said there had been no poaching incidents in their village over the last year, while another 30% indicated between 1 and 3 incidents.

76. 64.6% said that poaching incidents were decreasing in the area, but 24.3% were not sure. Only 9.3% said that poaching was increasing or the same as before.
77. 62% said that there had been no bush fires in the area over the last year, while another 20.3% indicated that there had been only 1. Another 15.8% said there had been 2 or 3 fires.
78. 64.8% said that bush fires were decreasing in the area, but 19.2% were not sure. Only 14.2% said that bush fires were increasing or the same as before.
79. 64.5% said that there had been disputes or conflicts in their village due to the creation of the WMA, while 27.8% said there had not been. Only 7.7% were not sure or did not know.
80. Among those aware of disputes or conflicts after WMA creation, 47.8% said crop destruction by wild animals, 35.4% indicated disputes over village boundaries, 21.5% indicated misunderstandings between villagers and investors, 18.4% said wild animal attacks (against humans), 14.6% indicated disputes over benefit sharing of WMA revenues, 13.8% said destruction of livestock by wild animals. 84.7% of respondents said there were no other important disputes.
81. A minority of respondents felt that village disputes or conflicts had increased following WMA creation: 31.7 said crop destruction by wild animals, 22.4% indicated disputes over village boundaries, 11.5% indicated misunderstandings between villagers and investors, 11.5% said wild animal attacks (against humans), 36.7% indicated disputes over benefit sharing of WMA revenues, 8.5% said destruction of livestock by wild animals. 90.4 of respondents said there was no other important type of dispute increase.
82. A strong majority of respondents felt that village disputes or conflicts had not become less common following WMA creation: 94.1% said crop destruction by wild animals had not decreased, 83.5% said disputes over village boundaries, 85.9% said misunderstandings between villagers and investors, 80.5% said wild animal attacks (against humans), and 97.4% said disputes over benefit sharing of WMA revenues. Destruction of livestock by wild animals was not indicated by any respondent as having decreased. Some 60.5% of respondents said flat out that no types of disputes or conflicts had decreased since WMA formation, and 99.9 of respondents said there was no other important type of dispute decrease not mentioned above.
83. When asked what potential productive activities villagers expected the WMA to bring to their village, the following were indicated: 11.9% said cash crop farming, 7.8% food crop

production, 21.1% small business activities, 58.5% said wage employment, 1.5% said horticulture, 14.7% said handicrafts for sale, 2% said water vending, 18.2% said game meat business, 31.8% said tourism opportunities, 49.1% said improved public infrastructure and services, and 90.1% said there had been no other types of expectations.

84. When asked what economic benefits actually did occur following the creation of the WMA, 42.7% indicated that there were no benefits of consequence for the village, although 57.3% disagreed. However, respondents generally overwhelmingly said no to the following types of economic benefits: 98.6% said no benefits from cash crop farming, 97.6 said none from food crop production, 93.5% said none from small business opportunities, 66.5% said none from wage opportunities, 98.9% said none from horticulture, 91.6% said none from handicrafts for sale, 99.5% said none from water vending, 99.3% said none from game meat business, 98.5% said none from grazing areas in the dry season, 98% said none from tourism opportunities, and 72% said none from improved public infrastructure and services.
85. Respondents were not impressed by the occurrence of other, non-economic benefits from the creation of the WMA, although a narrow majority tended to agree with most of these. Thus, villagers agreed with the following statements concerning these other benefits: people have new skills (53%); the village council works better and more efficiently (52.4%); villagers feel more confident in expressing their needs to government (57.7%); various villages are being managed more efficiently because of the land use plans (56.1%); public services are being provided that would not have been delivered without the WMA (20.1%); VGS are finding and fining people illegally using the WMA land (33.8%); and wild animals are increasing and now we know how to turn this into profits for our village (65.5%). The last three options indicate that villagers definitely do not see WMA revenues as providing public services not provided before by government, that VGS are not very effective in policing the WMA, and that wildlife is increasing and villagers now have awareness of how to turn this into profits.
86. Respondents were again asked about 5 positive benefits for their village and they were mixed in their agreement. Thus villagers agreed with the following benefits: development projects carried out in the village from WMA revenues (69.3%); business opportunities for individual family members (19.6%); learning about how to manage village lands for best use (52.8%); learning now to make money from keeping wild animals that can bring tourists (57.7%); learning about the wider world beyond our village (32.4%). Villagers tend to be aware of the development projects financed at least in part by the WMA, they do not see much in the way of business opportunities for individual family members, and they do not agree with the benefit of seeing the wider world beyond the village.

87. A small minority of villagers (24.2%) agree that there have been no negative aspects to the establishment of the WMA, while 64.3% disagree with this statement. However, they remain divided when it comes to specific negative consequences. Thus, respondents agree with the following negative aspects: loss of village agricultural land (50.9%); loss of village grazing land (50%); no economic benefits to communities equal to the loss of land (38%); no economic benefits to individuals equal to the loss of use of land (43.5%); no prospects for generating greater economic benefits for villages (35%); unclear who is in charge of managing the monies generated by the WMA (59.7%); conflicts generated between villages that did not exist before the WMA (48.4%). Villagers are not impressed with loss of land to the WMA, remaining divided on that question, and they disagree that the opportunity cost outweighs benefits to communities and even individuals. Villagers are not willing to dismiss the prospect of future greater economic benefits, but they do seem to appreciate that there has been a rise in inter-village conflicts since the WMA.
88. Nearly half of respondents (47.3%) indicated that their understanding of the purpose and potential of the WMA has not changed since WMA establishment, while 13.9% felt that their opinion changed regarding the lack of sufficient benefits to individuals, 10.9% said the lack of sufficient benefits to villages, 9.9% the lack of clarity regarding contracts with and income from investors; and 6.5% indicate the degree of sacrifice of village lands to the WMA, 4.8 % indicate the unclear leadership and management structure, and 2.9% lack of equitable sharing of benefits between villages. In general, about half of villagers seem to feel that they the WMA turned out to be much the same as they expected.
89. By a relatively small margin, villagers feel that the system of sharing of benefits derived from the WMA is unfair. Thus, 42.2% feel it is unfair, while 32.3% see it as fair. However, there is a fairly large percentage of respondents (25.5%) that don't know.
90. Only 31.4% of households feel that the WMA has been beneficial to their household, while 61.5% say it has not been beneficial. Only 7% say they do not know.
91. In response to a question on satisfaction with the health, education, and water supply characteristics of the local community, 60.1% of respondents say that the WMA has increased their quality of life, 29.4% indicate that there has been no change, and only 3.4% say that the WMA has decreased community quality of life. The remaining 7.2% do not know.

92. 42.7% of respondents felt that the WMA has been good for small businesses in the community, 26.7% feel that it has no impact on small businesses, while 21.2% feel that the WMA has had negative impacts on small businesses. Some 9.4% are unsure or do not know.
93. In regard to a set of potential problems with the WMA, respondents were divided: a small majority of 50.9% agreed that there were too many rules; 63.7% said that rules and regulations are not well enforced; 49.8% felt that the WMA causes conflicts and disputes, but an almost equal number (43.5%) did not agree; a majority of 57.8% did not feel that the WMA has failed to produce sufficient benefits or may even have reduced them from before; 63% did not agree that the WMA erodes traditional authority structures, and 59.2% did not feel that the WMA failed to provide equal benefits to different villages or groups.
94. With regard to what infrastructure needs the WMA could still assist financially, respondents were relatively divided on whether roads (55.8% against), potable water supply and irrigation structures (59.3% for), schools (54.1% for), and dispensaries (52.2% for) were priority items. On the other hand, respondents were 77.7% against using WMA funding for market infrastructure, and 86.8% against its use for public administrative buildings. 72.3% of respondents said there were no other spending options than the above.
95. 81.4% of respondents felt that the WMA had had a positive impact on wildlife numbers and conditions in their area by increasing its abundance. Another 80.9% indicated that wildlife habitat destruction had been stopped, 70.6% felt that some species were coming back (but 21.4% did not know), and 53.9% felt that the WMA provided save reproductive areas (but 34.5% did not know). Finally, 64.5% of respondents disagreed with the idea that wildlife has generally decreased, but 20% were not sure.
96. 39.3% of household respondents were not aware of any human – wildlife conflicts over the preceding year, while 17.6% indicated 1 conflict, 11.1% said 2, 7.3% said 3, and 4% claimed 4 conflicts. The remaining indicated annual conflict counts (from 5 to 100) accounted for about one-fifth of household responses. Such a vast difference in count must have a good deal to do with what is defined locally as a conflict.
97. Some 41.6% of households felt that human – wildlife conflicts had decreased since the creation of the WMA, while 33.1% and 7.4%, respectively, felt that these conflicts had increased or remained the same. The whole concept of conflict may not have been clear to respondents, although only 17.8% of respondents claimed not to know.

ANNEX F: WMA FIELD VISIT FINDINGS

Burunge WMA

- The origin of Burunge WMA is not linked to a previous donor project in its area. Beginning in about 1999 District officials met with the Village Councils and called a general assembly in each of the future member villages. Later some villages felt rushed and pressured into signing. In one case the agreement is said to have been only in English.
- In the case of Vilima Vitatu village, the current Village Council feels the village originally pledged 4,600 hectares to the WMA, but that the AA (JUHIBU) took some 11,600 hectares, about 2/3 of total village land. Vilima Vitatu would like to get some of this land back to be used for farming as they are facing a lot of pressure from population increase in their village.
- The process of WMA creation began in 2002 when JUHIBU was formed as a CBO. It was assisted at that time by District officials, particularly the DGO, as well as AWF. Financial benefits from the WMA began to flow to the villages by 2006. The WMA is relatively small at 283 km² and has a sinewy form within the general wildlife corridor, with some villagers and even VGS at times unclear where the exact boundaries lie.
- Minjingu village has refused to collect any revenue from JUHIBU, maintaining that it never legally joined the WMA and they are currently planning to go to court to pull out of the WMA. They argue that their they were more advanced in wildlife conservation in the area before the WMA, their income was as high to 70,000,000 TZS, from investors.
- Prior to 2012, JUHIBU was collecting investor payments directly from investors, but beginning this year it will await its share from the MNRT, which it is unable to calculate. In the past income rose steadily and significantly each year from Tshs. 64.6 million in 2009 to 470.7 million in 2012. These monies were entirely from investors and should have provided some Tshs. 26.2 million per village (based on 9 receiving villages). However villagers did not seem to be aware of the amounts earned – Vilima Vitatu villagers thought they had earned only Tshs. 2 million in 2012.
- Village revenue is devoted to social infrastructure and other community development projects. Individual or household economic benefits are not recognized by villagers, in spite of the proximity of a major highway and significant tourism in nearby national parks.

- These revenues are sufficient thus far to pay 30 VGS (3 from each village) a monthly salary of Tshs. 150,000 all year round, but Burunge WMA has now turned to donor assistance (Honeyguide Foundation) for increased protection from poaching, livestock grazing, and even agricultural invasion. Their minimal VGS force has no reliable vehicle or arms for patrolling.
- Most villages indicated that wildlife is decreasing and so is vegetative cover. Vilima Vitatu maintains that the wildlife on their former protected land has decreased sharply. Minjingu village claims that protection was much better when it was under village hands. Now there is no feeling of ownership by villagers of the area that has been taken over by the WMA. The WMA in Maweni village has been overrun by farmers. Human-wildlife conflicts are still present (e.g. in Minjingu) though said to be decreasing.
- Land use plans and by-laws governing them do not yet appear to be in final form in these Burunge villages. Villages claimed to have had their own land-use plans before the WMA creation process, it is unclear what institution supported these plans. The same 4 zones are recognized: settlement area, forest or protected area, grazing area, and agricultural land. In Maweni village there has been encroachment of farmers in the protected area / WMA.
- There is an increase of land fragmentation and blockage of the wildlife migratory corridor to Manyara National Park from Tarangire, mushrooming of the new building along the Minjingu- Babati highway and rice farm on the highland of Magara village pose a major threat to wildlife migratory corridor.

Enduimet WMA

- Enduimet WMA contains 9 villages facilitated since 2002 by African Wildlife Foundation. One of the villages (Kamwanga) did not provide land and another (Sinya) is highly dissatisfied, claiming it was making far more income before the WMA from tourism investments in its land, they have been rejecting their share from a AA from 2007 and have only started to receive in 2010 because they had no other option.
- The WMA benefitted in 2012 from a cash-for-work program implemented through AWF, but villages indicated dissatisfaction with hard work and low pay leading to some desertion of workers.
- Community members complained of human-wildlife conflicts leading to uncompensated damage to both livestock and agricultural land. This conflict has increased as wildlife has increased following the establishment of the WMA and has been complicated by the building of an electrified fence by a private agricultural estate between Kilimanjaro National Park and village land, which prevents wildlife movement from the Sinya plains to KINAPA. Neither government nor the AA has made any effort to compensate for villager losses.

- The AA in collaboration with AWF and Honeyguide Foundation has been involved in funding the installation of wire mesh fencing around bomas that provide improved protection against wild animal predation of herds. Thus far Enduimet villages have received only a handful of these fortified bomas (9 in Olmolog, 2 in Ngereiyani, 1 in Sinya), provided to those households with most wild animal attacks against a 25% cost contribution. In Sinya, it has been reported that the fortified bomas made protect only calves and other small stocks and not the entire boma.
- In spite of clear economic costs not offset by benefits, village members do feel the environment has improved from less poaching and tree cutting, while grazing of livestock on WMA land in all seasons appeared to pose no problem for wildlife numbers from the villagers' perspective.
- Villagers are still using traditional Land Use Plans, which determine areas for wet and dry season grazing, although they acknowledged that AWF had assisted them in 'improving' this LUP during the formation of the WMA.
- The villages complain of lack of new investors and low financial benefits since the creation of the WMA. The villages each made about Tshs. 4.7 million in 2012. Thus far this year, receipts to each have been Tshs. 1.8 million of which Tshs. 500,000 have been provided to an education fund for about 100 students at the secondary level.
- Thanks to donor support, there is a WMA protection unit of about 50 persons, including 40 Village Game Scouts with 3 vehicles on loan from Honeyguide, weapons, tracker dogs, and VGS salaries of about Tshs. 200,000 per month year around. Villagers in Ngereiyani were fully aware that this level of support could not be sustained with current WMA income once donors have gone.
- Village women complained that they are not being included in environmental seminars and that their special needs are not being met for credit for small enterprise development. They felt that the AA should contribute to a SACCOS. An investor previously had assisted women to produce jewelry for tourists, but he has since left the area. This type of small enterprise development has not been backed by this AA, confronted by the need to show benefits on a community scale through social infrastructure provision (teacher's house, primary school kitchen, a pipeline for water, etc).

Ipole WMA

- Following the 1998 Wildlife Act, Africare arrived in Sikonge district and by 2000, 4 villages had agreed to form a WMA. In 2005 the CBO JUHIWAI was registered and by the end of 2005 it received AA status. It was in the forefront of WMAs. The Ipole WMA is large, covering some 2,400 km² of mostly forest.

- The fact that Ipole WMA consists almost entirely of forest falling under the jurisdiction of the Forest Division of MNRT led to the conclusion of a MOU signed in 2011 between the AA, the Wildlife Division, and the Forest Service on the use of forest products. However, the District has at the moment banned harvesting of forest products to ensure habitats for wildlife are maintained – this is despite the presence of timber that could be harvested sustainably to earn income.
- Investor income to JUHIWAI was Tshs. 15.6 million in 2006, rose to Tshs. 39.3 million by 2010, and fell back to 21 million in 2011. Revenues for 2012 have not yet been received from the MNRT and are unknown, although there is only one investor. Previously, the share received by the AA represented 25% of hunting fees paid by the investor to the MNRT. A 45% income share is released to the 4 villages according to development plans approved by the AA. In 2011 each village received some Tshs. 4.7 million. The proposed addition of 6 new villages was said to be beneficial, since it would expand the WMA area, but it could in the short run further divide investor income.
- Ipole is one of the WMAs that have had the opportunity to negotiate terms with a hunting investor as per the new regulations 2012. A contract has been signed between the AA and the investor, but key information is missing – it was not stated how much the investor would be paying the AA. The contract was submitted to MNRT, which has not yet given approval. It was also noted that Ipole AA's (wildlife) user rights expired in 2010, and these had not yet been renewed.
- Income distributed to villages is for social service development projects and essentially replaces or diminishes the household contributions required for these projects. Village offices, office furniture, classroom renovation, school toilets, and wells are among the projects co-funded with citizen's contributions. Income from Ipole WMA also serves as a source of support to secondary students sponsorship.
- Of the 42 VGS selected, JUHIWAI can only pay 6 at one time, but rotate their duty through the full contingent. There are 3 placed in each of two ranger posts, and they earn only Tshs. 49,000 for their tour of duty of 14 days. They do not conduct meaningful patrols and poaching and illegal grazing are said to be on the rise.
- The USAID Cash-for-Work program provided short-term employment income to about 200 people, plus meals. Under this program, WWF constructed 2 ranger posts and 2 honey collection centers and wild-fruits collection center; the centers are not yet used.
- Africare launched two honey production groups and supplied 30 modern beehives to one group of 64 people. Another 55 producers still have traditional hives and are awaiting the arrival of modern hives and beekeeping equipment. However, honey production is said not to be very good since the departure of Africare.
- JUHIWAI declared its annual budget to be some Tshs. 40 – 50 million but added that it would need about 300 million to function normally as an AA. This declared budget would only correspond to its peak earnings year of 2010 (39.3 million) and be about twice its 2011 earnings.

- There appear to be no adherence to land-use plans, and villages mix agriculture with livestock raising, beginning with the former and expanding into the latter as a bank or investment. In some villages livestock numbers are huge – up to 3000 in Idekamiso, and pressure for grazing land is increasing. Villagers in Idekamiso requested the District to consider allowing them to graze in the WMA, but the District advised that they should reduce livestock numbers instead.
- The JUHUWAI has a potential to diversify their sources of revenues earnings through permits fee for people wish to hang the beehives in the MWA and fishing activities.

Pawaga-Idodi WMA

- Efforts to form the Pawaga-Idodi WMA originated 17 years ago in 1996 under a DFID community-based conservation project in 5 villages. The original project headquarters office later became the AA MBOMIPA.
- 21 villages have been effectively mobilized to join the WMA and have been assisted by WCS since 2003. Authorized Association status and User Rights were granted to MBOMIPA in 2007. A Resource Management Zone Plan has been produced and revised, but the General Management Plan has not yet been approved.
- MBOMIPA has earned Income from investors that increased from Tshs. 20 million in 2003 to Tshs. 140 million in 2009, then dropped to 60 million by 2011. Since 2011 there has been no income reported by MBOMIPA. This fall off is primarily due to legal and contractual conflicts with four tourist-hunting companies and disputes between villages over benefit sharing. These disputes and rumors of corruption caused the District Commissioner to dismiss the whole membership of MBOMIPA in 2011, an unusual intervention into the affairs of a nominally non-governmental CBO. MBOMIPA has one vehicle which reside at the District Game Officer rather than remain at the WMA level to support patrols and other WMA activities, the vehicle only come once a month from the district to drop and pick the VGS from the field.
- There are minimal earnings from photographic tourism investments in the WMA; a reason for this is a lack of legitimate contracts between investors in tourism lodges (in Tungamalenga) and the AA or villages in which the investments have been made.
- MBOMIPA is divided into two groups of member villages, eight that have contributed land to the WMA and 13 that contributed none. A constitutional amendment allowing land contributors to divide 70% of MBOMIPA income and for the remainder to split 30% has stalled in the face of increased demands by the contributor villages.
- Internal conflicts over benefit sharing and external disputes with various investors are preventing MBOMIPA from generating and distributing income to villages. The 37 VGS are paid a very low and intermittent wage and have no vehicle, arms, or equipment to undertake meaningful patrols.

Poaching and illegal grazing are consequently on the rise, although overall wildlife numbers and local human-wildlife conflict are also said to be increasing, particularly in Tungamalenga and Malinzaga Villages.

- Since 2010 Pawaga-Idodi villages have seen additional short-term employment benefits through the USAID-funded Cash-for-Work program, which has employed over 100 people from member villages and generated some income to local small businesses from these workers.
- Land use plans developed with the assistance of WCS do not appear to be respected by member villages, and only over the last year has WCS been assisting villages to develop land-use by-laws.
- A number of social infrastructures projects have been financed by MBOMIPA from its own revenue, but beyond some VGS and cash-for-work employment there have been few individual or household benefits from the WMA. There is some purchasing of local produce and a few jobs provided by local hotel investors on the edge of the WMA. In Tungamalenga.
- MBOMIPA decisions need not only to be approved by the AA Council with representatives drawn from rival villages, but according to the new constitution the approval of village chairmen is also needed for any AA key decisions. A number of other ward, division, and district officials can also be involved in approving AA decisions. The cost of meetings to approve decisions can be as much as Tshs. 16 million per meeting.

Wami-Mbiki WMA

- Efforts to form the Wami-Mbiki WMA began about 18 years ago in the middle 1990's linked to visits from representatives of the Danish Hunters Association.
- 24 villages from three districts were effectively mobilized to join the WMA constituting a settlement and buffer zone of 1,500 km² and a fully protected core area of 2,500 km². Authorized Association status and User Rights were granted to Wami-Mbiki Society in 2007. A General Management Plan was developed with DHA assistance in 2006 for 10 years.
- In the period 2002–2006, the DHA distributed Tshs. 1 million annually to each of the 24 member villages. From 2006 to 2011, the WMA earned Tshs. 10 million annually from its investor in photographic tourism, providing half of that to the villages. The investor and the DHA withdrew by June of 2011, leaving the WMA totally without income, and no new investor contract has yet been concluded. The reason could be that the required investment fee of Tshs. 45 million annually is too

high considering the low tourism potential of the area. The investment agreement is also only for 3 years, which is too short a period for the investor to recover costs.

- The last annual budget of Tshs. 180 million (provided by the DHA) was for 2010 and the last AA Council meeting was held in December 2010. In spite of this, the basic institutional structure and many VGS and AA personnel remain in place hoping for an investor or a new donor organization. For the moment, this WMA remains paralyzed.
- The MNRT revoked user rights for consumptive tourism in Wami-Mbiki in 2007. However, a wildlife census indicated an increase of wildlife from 5,000 in 1997 to 31,900 in 2010. Local VGS estimates indicate that this number is now dropping rapidly from uncontrolled poaching and livestock grazing.
- Land use plans funded by the DHA were developed for all villages in the process of WMA creation, but by-laws governing 13 of these plans have never been approved by Bagamayo district. Consequently, the AA has not returned approved land use plans to villages in the other two districts, so the LUPs cannot be implemented.
- Some boundary conflicts arose during the WMA demarcation process, which have not yet been resolved e.g. Makombe still has boundary disputes with a neighboring village.
- Wami Mbiki Society's user rights expired in 2010. The rights were issued in 2007 for a period of only three years. Wami Mbiki Society currently lacks funds to reapply for new user rights.
- A considerable number of social infrastructures projects were financed by the DHA through the WMA, but these were fully donor-financed. However, there has been no apparent increase in household income or other benefits from small business or other WMA-related activities.
- Human Wildlife conflicts have been repeatedly reported in most of the villages visited in Wami-Mbiki WMA. An increase demand of land for Agriculture by communities and large-scale farmers have been pointed out as main cause of this problem. Communities from Kambala village for example, have reported that, their traditional grazing land have been allocated to an investor who is now carrying sugar cane plantation in the area.

ANNEX G: PERSONS INTERVIEWED INDIVIDUALLY AND IN GROUPS

S/ N	Institutions	Name of Person Met	Gender		Position
			M	F	
1	AAC	Mr. George Wambura	1	0	WMAs Consortium
2	AAC	Mr. Amiri Mataka	1	0	WMAs Consortium- Chairman
3	WWF	Dr. H. Sosovele	1	0	WWF
4	WWF	Mr. Kajuni	1	0	WWF
5	WWF	Mr. Elieza Songusia	1	0	WWF
6	WCST	Mr. Deo-gratias Gamassa	1	0	WCST
7	Africare	Mr. Alfred G. Kalaghe	1	0	Africare
8	Africare	Mr. Kasian Ninga	1	0	Africare
9	MNRT-Wildlife Division	Professor Alexander Sorongwa	1	0	Wildlife Director
10	MNRT-CBC office	Herman Nyanda	1	0	CBC- Officer
11	MNRT-CBC office	Suleimani Leordanard	1	0	CBC Officer
12	EU	Maria IARRERA	0	1	International Aid/Cooperation Officer Natural Resources Unit
13	BTC / MNRT	Giuseppe Daconto	1	0	BTC / MNRT
14	BTC / MNRT	Pelage F. Kauzeni	1	0	BTC / MNRT
15	BTC / MNRT	Piet Oosterom	1	0	BTC / MNRT
16	DANIDA	John Dominic Balarin-	1	0	Sustainable Wetland Management Advisor
17	Morogoro District	Abullah Mayingu	1	0	Game Warden

18	Morogoro District	Iddi Ndabagenga	1	0	Game Officer
19	Morogoro District	Beda H. Karani	1	0	DNRO
20	Wami Mbiki	Neema Salumu	0	1	Deputy Chairman-AA
21	Wami Mbiki	Hamis Mhina	1	0	Treasurer
22	Wami Mbiki	Abubakar Msonde	1	0	Ass- Manager
23	Wami Mbiki	Arafa Mbutulange	1	0	Storekeeper
24	Wami Mbiki	Furaha Mbwilo	1	0	VGS
25	Wami Mbiki	Johari Ngwaji	0	1	VGS
26	Wami Mbiki	Simon Ibrahim	1	0	VGS
27	Mwidu Village	Mohamed Said Hassan	1	0	Village Chairman
28	Mwidu Village	Athumani Shambani	1	0	VEO
29	Mwidu Village	Ramadhani Rashidi	1	0	Sub Village Chairman
30	Mwidu Village	Iddi Kigua	1	0	Sub Village Chairman
31	Mwidu Village	Iddi Omary	1	0	Sub Village Chairman
32	Mwidu Village	Selemani Athumani	1	0	Village member-FGD
33	Mwidu Village	Sauda Alifa Makusi	0	1	Village member-FGD
34	Mwidu Village	Tunu Ramadhani	0	1	Village member-FGD
35	Mwidu Village	Halima Mgweni	0	1	Village member-FGD
36	Mwidu Village	Ambiasi Semindu	0	1	Village member-FGD
37	Mwidu Village	Omari R. Fundi	1	0	Village member-FGD
38	Mwidu Village	Tausi Omary	0	1	Village member-FGD
39	Mwidu Village	William D. Msemakweli	1	0	Village member-FGD
40	Mwidu Village	Martin J. Mponda	1	0	Village member-FGD
41	Mwidu Village	Ester Antony	0	1	Village member-FGD
42	Mwidu Village	Iddi Hassan Sekenga	1	0	Village member-FGD
43	Mwidu Village	Fatma Salum	0	1	Village member-FGD

44	Mwidu Village	Saidi Mwasu	1	0	Village member-FGD
45	Mwidu Village	Rajabu S. Muhina	1	0	Village member-FGD
46	Mwidu Village	Ramadhani Omary	1	0	Village member-FGD
47	Makombe Village	Khalifa Kilangu	1	0	Village Chairman
48	Makombe Village	Haji Mwalongo	1	0	VEO
49	Makombe Village	Suddi Hussein Maskat	1	0	Village Concil member
50	Makombe Village	Mohamed Mulisho	1	0	Village Concil member
51	Makombe Village	Mwanahawa Saidi	0	1	Village Concil member
52	Makombe Village	Mohamed Ally	1	0	Village Concil member
53	Makombe Village	Fadhili Saidi	1	0	Village Concil member
54	Makombe Village	Idd Shaan	1	0	Village Concil member
55	Makombe Village	Shukrani Mohamed	1	0	Village Concil member
56	Makombe Village	Bori A. kondokaya	1	0	Village Concil member
57	Makombe Village	Miraji Mrisho	1	0	Village Concil member
58	Makombe Village	Mustafa Saidi ally	1	0	Village Concil member
59	Makombe Village	Ramadhani Saiudi	1	0	Village Concil member
60	Makombe Village	Hadija Oda	1	0	Village Concil member
61	Makombe Village	Juma Mrisho	1	0	Village Concil member
62	Makombe Village	Waziri M. Tondo	1	0	Youth-Makombe Village
63	Makombe Village	Ally Tamla	1	0	Youth-Makombe
64	Makombe Village	Alfani Rashidi	1	0	Youth-Makombe
65	Makombe Village	Ramadhani Itondoro	1	0	Youth-Makombe
66	Makombe Village	Maskati Hussein	1	0	Youth-Makombe
67	Makombe Village	Halidi Alfani	1	0	Youth-Makombe
68	Makombe Village	George Daniel	1	0	Youth-Makombe
69	Makombe Village	Hussein Mohamed	1	0	Youth-Makombe

70	Makombe Village	Hamis Iddi	1	0	Youth-Makombe
71	Kambala Village	Jumanne Sallum	1	0	VC-Member
72	Kambala Village	Elias Lembuguni	1	0	VC-Member
73	Kambala Village	Kayan Rijua	1	0	VC-Member
74	Kambala Village	Majuka Koira	1	0	VC-Member
75	Kambala Village	Peter Kanduru	1	0	VC-Member
76	Mkono wa Mara village	Massanja Joseph	1	0	VC-Member
77	Mkono wa Mara	Abdallah Mgilie	1	0	VC-Member
78	Mkono wa Mara	Elias Hambo	1	0	VC-Member
79	Mkono wa Mara	Said Abdallah	1	0	VC-Member
80	Mkono wa Mara village	Ally M. Gumbo	1	0	VC-Member
81	Mkono wa Mara	Shambani Omary	1	0	VC-Member
82	WCS- Iringa	Rogasian R. Mtana	1	0	Project Manager
83	WCS- Iringa	Ally T. Mbugi	1	0	Ass. Project Director
84	WCS- Iringa	Claire Bracebridge	0	1	Tech. Advisor
85	Iringa Rural-District	Retcho Nambula	0	1	District Game Warden
86	Iringa Rural-District	Donald Mshani	1	0	Iringa Rural- DNRO
87	Tungamalenga	Leunece Mkingula	1	0	Village NRC
88	Tungamalenga	Juma Fanzila	1	0	Village NRC
89	Tungamalenga	Fridolin Lupumbe	1	0	Village NRC
90	Tungamalenga	Anjelista Kufakunoga	0	1	Village NRC
91	Tungamalenga	Julima Msingili	0	1	Village NRC
92	Tungamalenga	Jenipha Maliga	0	1	Village NRC

93	Tungamalenga	Aulelia Mhovelwa	0	1	Village NRC
94	Tungamalenga	Leornad Changula	1	0	Mbomipa Former chairman
95	MBOMIPA	Alex Gabriel	1	0	Mbomipa VGS
96	MBOMIPA	Gerald Dominikus	1	0	Mbomipa VGS
97	MBOMIPA	Metrodi Mussa Sanga	1	0	Mbomipa VGS
98	MBOMIPA	Kassim Kilawa	1	0	Mbomipa VGS
99	MBOMIPA	Benedict Nyalusi	1	0	Mbomipa VGS
100	Malinzaga Village	Norbeth Molison	1	0	Village chairman
101	Malinzaga Village	Shabani Mwalongo	1	0	VEO
102	Malinzaga Village	Frank Kasumbi	1	0	Agriculture Officer
103	Malinzaga Village	Leonard Mpute	1	0	VC-Member
104	Malinzaga Village	Monika Nzilano	0	1	VC-Member
105	Malinzaga Village	Jofrey Chawo	1	0	VC-Member
106	Malinzaga Village	Petro Nyato	1	0	VC-Member
107	Malinzaga Village	Romanus Chatanda	1	0	VC-Member
108	Malinzaga Village	Eliya Kibata	1	0	VC-Member
109	Malinzaga Village	Frida Fute	0	1	VC-Member
110	Malinzaga Village	Lazaro Mangula	1	0	VC-Member
111	Malinzaga Village	Java Mangula	1	0	VC-Member
112	Malinzaga Village	Olestino Ndugu	1	0	VC-Member
113	Malinzaga Village	Rehema Saidi	0	1	Village member-FGD
114	Malinzaga Village	Abdul Mlawa	1	0	Village member-FGD
115	Malinzaga Village	Upendo Kiswalehe	0	1	Village member-FGD
116	Malinzaga Village	Yahaya Saidi	1	0	Village member-FGD
117	Malinzaga Village	Ashili Mbigi	1	0	Village member-FGD

118	Malinzaga Village	Venancy Steven	1	0	Village member-FGD
119	Malinzaga Village	Lulamso Kadaga	1	0	AA- Representative, Malinzaga
120	Malinzaga Village	Liaden Madinda	1	0	AA- Representative, Malinzaga
121	Malinzaga Village	Jonas Mkusa	1	0	AA- Representative, Malinzaga
122	Ilolo Mpya	Shambe Lyana	1	0	Village chairman
123	Ilolo Mpya	Kharidi Mtemle	1	0	CV-Member
124	Ilolo Mpya	Kikulacho Ningalata	1	0	CV-Member
125	Ilolo Mpya	Eudia Mkwila	0	1	CV-Member
126	Ilolo Mpya	Salima Kingalata	0	1	CV-Member
127	Ilolo Mpya	Mwanaenzi Mtemle	0	1	CV-Member
128	Ilolo Mpya	Sikuzani Mbaka	0	1	CV-Member
129	Ilolo Mpya	Kapanga Msavi	1	0	AA-Representative
130	Ilolo Mpya	Mashuhuli Msavi	1	0	AA-Representative
131	Ilolo Mpya	Nadia Mdindile	1	0	Village member-FGD
132	Ilolo Mpya	Siwazuli Nguiganga	0	1	Village member-FGD
133	Ilolo Mpya	Regina Malenda	0	1	Village member-FGD
134	Ilolo Mpya	Mussa Mgaya	1	0	Village member-FGD
135	Ilolo Mpya	Hassan Mkamika	1	0	Village member-FGD
136	Ilolo Mpya	John Kibwana	1	0	Village member-FGD
137	Ilolo Mpya	Maria Bwelwa	0	1	Village member-FGD
138	Ilolo Mpya	Fidia Mbava	0	1	Village member-FGD
139	Ilolo Mpya	Changula Mlula	1	0	Village member-FGD
140	SPANEST	Godwell Ole Meig'ataki	1	0	Project Coordinator
141	Sikonge District	Gervas Magesa	1	0	District NRO

142	Sikonge District	Twaha Kikoti	1	0	Acting DGO
143	JUHUWAI Society	Joyce Magunguli	0	1	AA Member
144	JUHUWAI Society	Christina Edwarda	0	1	AA Member
145	JUHUWAI Society	Jesandu Kalale	0	1	AA Member
146	JUHUWAI Society	Mwamvua Saidi	0	1	AA Member
147	JUHUWAI Society	Elis kang'ombe	0	1	AA Member
148	JUHUWAI Society	Anna Daniel Mshana	0	1	AA Member
149	JUHUWAI Society	Kagenda J. Kagenda	1	0	AA Member
150	JUHUWAI Society	Sinzia Dickson	0	1	AA Member
151	JUHUWAI Society	Raban Paulo	1	0	Chairman, Juhuwai Trustee
152	JUHUWAI Society	Manyungunyungu Kasema	1	0	Vice Chairman, Juhuwai
153	JUHUWAI Society	Thomas Andrew	1	0	Secretary, Juhuwai
154	JUHUWAI Society	Ruben D. Kassanda	1	0	Chairman, Juhuwai
155	JUHUWAI Society	George Baharia	1	0	JUHUWAI Member
156	JUHUWAI Society	Mathew Alfred Chata	1	0	VGS, Juhuwai
157	JUHUWAI Society	Thoams Brighton	1	0	VGS, Juhuwai
158	Idekamiso Village	Jackson kagenda	1	0	Village Chairman
159	Idekamiso Village	Manyakenda Luhende	1	0	VC-Member
160	Idekamiso Village	Lutaja Luhende	1	0	VC-Member
161	Idekamiso Village	Adiana Alumasi	0	1	VC-Member
162	Idekamiso Village	Polycarp Massawa	1	0	VC-Member
163	Idekamiso Village	Letisia John	0	1	VC-Member
164	Idekamiso Village	Magreth Paulo	0	1	VC-Member
165	Idekamiso Village	Paston A. Kapana	1	0	Village NRC
166	Idekamiso Village	John Katoto	1	0	Village NRC

167	Idekamiso Village	Samweli Nhab	1	0	Village member-FGD
168	Idekamiso Village	Lukas Masunga	1	0	Village member-FGD
169	Idekamiso Village	John Katabi	1	0	Village member-FGD
170	Idekamiso Village	Matilda Maganga	0	1	Village member-FGD
171	Idekamiso Village	Magdalena Gabriel	1	0	Village member-FGD
172	Idekamiso Village	Milembe Doto	0	1	Village member-FGD
173	Idekamiso Village	Elizabeth Hamis	0	1	Village member-FGD
174	Sikonge District	Hanifa M. Selenga	0	1	Sikonge DC
175	Ipole Village	James Mlongo	1	0	Village Member-FGD
176	Ipole Village	Gilbert Mgawe	1	0	Village Member-FGD
177	Ipole Village	Sabina Gedion	0	1	Village Member-FGD
178	Ipole Village	Joyce John	0	1	Village Member-FGD
179	Ipole Village	Edina Peter	0	1	Village Member-FGD
180	Ipole Village	Devid Isonda	1	0	Village Member-FGD
181	Ipole Village	Charles Paulo Msabaha	1	0	Village Chairman
182	Ipole Village	Hija M. Rmadhan	1	0	Ward Councillor
183	Ipole Village	Gasper Ruben	1	0	Ward Executive Officer
184	Ipole Village	Zablon Yona	1	0	VC-Member
185	Ipole Village	Mariam Pius Yona	0	1	VC-Member
186	Ipole Village	Matheo Kausali	1	0	Village NRC
187	Ipole Village	Noel Mezangula	1	0	VC-Member
188	Ipole Village	Grace Mpwagi	0	1	VC-Member
189	Ipole Village	Gosbert Mezambulu	1	0	VC-Member
190	Ipole Village	Wilson Limusu	1	0	VC-Member
191	AWF-Arusha	Gerson Mollel	1	0	AWF/Burunge WMAs
192	AWF-Arusha	Kimay Lendukai	1	0	AWF/Enduimet WMA

193	AWF-Arusha	Thedeus Benamungu	1	0	AWF
194	Honey Guide Foundation	Damian Bell	1	0	Honey Guide Foundation
195	Babati District	Dominic Kweka	1	0	District Executive Director
196	Babati District	Makokecha Nashan	1	0	District Game Officer
197	Maramboi Tented Lodge	Willy Chambulo	1	0	Investor- Burunge/ Enduimet
198	Burunge WMA	Prisca Songoi	0	1	Burunge WMA- Secretary
199	Burunge WMA	Makrina M. Marey	0	1	Burunge WMA-Vice chairman
200	Burunge WMA	Elias Petro	1	0	Burunge VGS
201	Burunge WMA	Felex Mbee	1	0	Burunge VGS
202	Burunge WMA	Jafari Rajab	1	0	Burunge VGS
203	Burunge WMA	Nickodem Fransis	1	0	Burunge VGS
204	Burunge WMA	Daniel Evarest	1	0	Burunge VGS
205	Burunge WMA	Nehemia Kamara	1	0	Burunge VGS
206	Burunge WMA	Joseph Mpuki	1	0	Burunge VGS
207	Burunge WMA	Ezekiel Loserian	1	0	Burunge VGS
208	Burunge WMA	Mohamed Omary	1	0	Burunge VGS
209	Minjingu Village	Lemakas Kibobora	1	0	Village Chairman
210	Minjingu Village	Elita Dadi	0	1	VEO
211	Minjingu Village	John Nyinyo	1	0	Livestock officer
212	Minjingu Village	Saimon Abel	1	0	VC-Member
213	Minjingu Village	Valentina Mahoo	0	1	VC-Member
214	Minjingu Village	Yohana Shilo	1	0	VC-Member
215	Minjingu Village	Martha Ayubu	0	1	VC-Member

216	Minjingu Village	Elizabeth Simon	0	1	VC-Member
217	Minjingu Village	Devota Kimaro	0	1	VC-Member
218	Minjingu Village	Joyce Msimbe	0	1	VC-Member
219	Minjingu Village	Samweli Zackaria	1	0	VC-Member
220	Minjingu Village	Ezekiel Longishu	1	0	VC-Member
221	Minjingu Village	Lomayani Laizer	1	0	Village Member-FGD
222	Minjingu Village	Robert Lukumay	1	0	Village Member-FGD
223	Minjingu Village	Jackson laizer	1	0	Village Member-FGD
224	Minjingu Village	Hussein Mohamed	1	0	Village Member-FGD
225	Minjingu Village	Amos Hamis	1	0	Village Member-FGD
226	Minjingu Village	Loth Loserian	1	0	Village Member-FGD
227	Longido District	Gipsoso Kisanga	1	0	Acting DED
228	Longido District	Joan Foya	0	1	District Planning Officer
229	Longido District	Steven Laizer	1	0	District Game Officer
230	Enduimet WMA	Charles H. Bujiku	1	0	Anti poaching manager
231	Enduimet WMA	Athumani Mohamed	1	0	Anti poaching
232	Enduimet WMA	Stephano Soikan	1	0	Zonal Commander
233	Enduimet WMA	William Koiyo	1	0	VGS
234	Enduimet WMA	Shamsi Iddi	1	0	VGS
235	Enduimet WMA	Taiko Lukuya	1	0	VGS
236	Enduimet WMA	Wilson Nata	1	0	VGS/Driver
237	Enduimet WMA	Tipilit Olkedianye	1	0	VGS
238	Enduimet WMA	Upendo Ezekiel	0	1	Radio Operator
239	Enduimet WMA	Joseph Ronyo	1	0	VGS
240	Sinya Village	Alais Ole Kiulo	1	0	Village Chairman
241	Sinya Village	Ringoine Moringe	1	0	VEO

242	Sinya Village	Loomu Oloodo	1	0	VC-Member
243	Sinya Village	Kelembu Tingoi	1	0	VC-Member
244	Sinya Village	Saipima Lenyakwa	1	0	VC-Member
245	Sinya Village	Supuk Melita	0	1	VC-Member
246	Sinya Village	Ngoya Loboiset	0	1	VC-Member
247	Sinya Village	Samwel Korok	1	0	VC-Member
248	Sinya Village	Ngamirika Kamalee	1	0	VC-Member
249	Sinya Village	Lemediak Olenaisula	1	0	Village Member-FGD
250	Sinya Village	Ole Engaisungui Mboles	1	0	Village Member-FGD
251	Sinya Village	Ole Naigwaya Penet	1	0	Village Member-FGD
252	Sinya Village	Ole naoku Loitetei	1	0	Village Member-FGD
253	Sinya Village	Thobiko Sakita	1	0	Village Member-FGD
254	Sinya Village	Lazaro Malee	1	0	Village Member-FGD
255	Sinya Village	Sombe Sendui	0	1	Village Member-FGD
256	Sinya Village	Naishiye Penini	0	1	Village Member-FGD
257	Sinya Village	Noolparakuo	0	1	Village Member-FGD
258	Sinya Village	Gerald Lumbet	1	0	Village Member-FGD
259	Sinya Village	Ndoiroom Ole Nina	0	1	Village Member-FGD
260	African Wildlife Trust	Pratik Patel	1	0	African Wildlife Trust
261	Olmolog Village	Keiso Laizer	1	0	Village Chairman
262	Olmolog Village	Melau	1	0	Village Executive Officer
263 - 277	Olmolog Village		12	3	VC-Members
278	Ngereiyani Village	Lesale Saketa	1	0	Village Executive Officer
279	Ngereiyani Village	Supeet Philipo	1	0	Village Chairman
280	Ngereiyani Village	Goodluck Mollel	1	0	Ward Executive Officer

281	Ngereiyani Village	Pascal Petro	1	0	VC-Member
282	Maweni Village	Francis Balthazar	1	0	Village Executive Officer (Acting)
283	Maweni Village	Isimaili Hango	1	0	Sub Village Chair
284-304	Maweni Village		17	3	VC-Members
328-353	Vilima Vitatu Village		19	6	VC-Members
305-327	Vilima Vitatu Village		20	2	Village Member-FGD
Totals			273	78	351

ANNEX H: KEY CHARACTERISTICS MATRIX FOR WMAS WITH EXISTING BASELINE REPORTS

WMA	Start Date	Support	Area (km2)	No. of villages	Pop. 000s	AA Reg.	User Rts	Cash 4 wk	Bio-phys type	Econ type	Ethnic Divers	Wild Life Dens	Bush Meat Use	Econ Poten	Success	Access
Ukutu	1996	GTZ USAID WWF	640	21	58.0	7/10	8/10	No	FS	AP	M	M	H	M	M	M
Wami-Mbiki	1997	USAID DHA WWF DANIDA	4,000	24	65.9	4/07	3/07	No	FS	AP	M	M	M	M	L	H
Burunge	2003	USAID AWF	280	10	20.0	3/06	2/07	Yes	FS	AP	H	H	L	H	M	H
Makame	2005	USAID AWF	3,719	5	10.7	12/09	1/12	No	S	P	L	L	L	M	L	M
Enduimet	2007	USAID AWF	750	9	47.1	3/07	5/07	Yes	S	P	L	H	L	H	M	H

Ikona	2005	USAID FZS	243	5	21.1	3/07	2/07	Yes	S	P	M	H	M	H	H	M
Uyumbu	2005	USAID Africare WWF	839	4	17.1	3/06	2/07	No	F	AP	L	L	H	M	L	L
Ipole	2005	USAID Africare WWF	2,540	4	8.9	3/06	2/07	Yes	F	AP	L	L	H	M	L	L
Pawaga- Idodi	2002	USAID WWF WCS DFID	777	21	62.2	9/07	2/07	Yes	FS	A	M	M	M	M	M	M

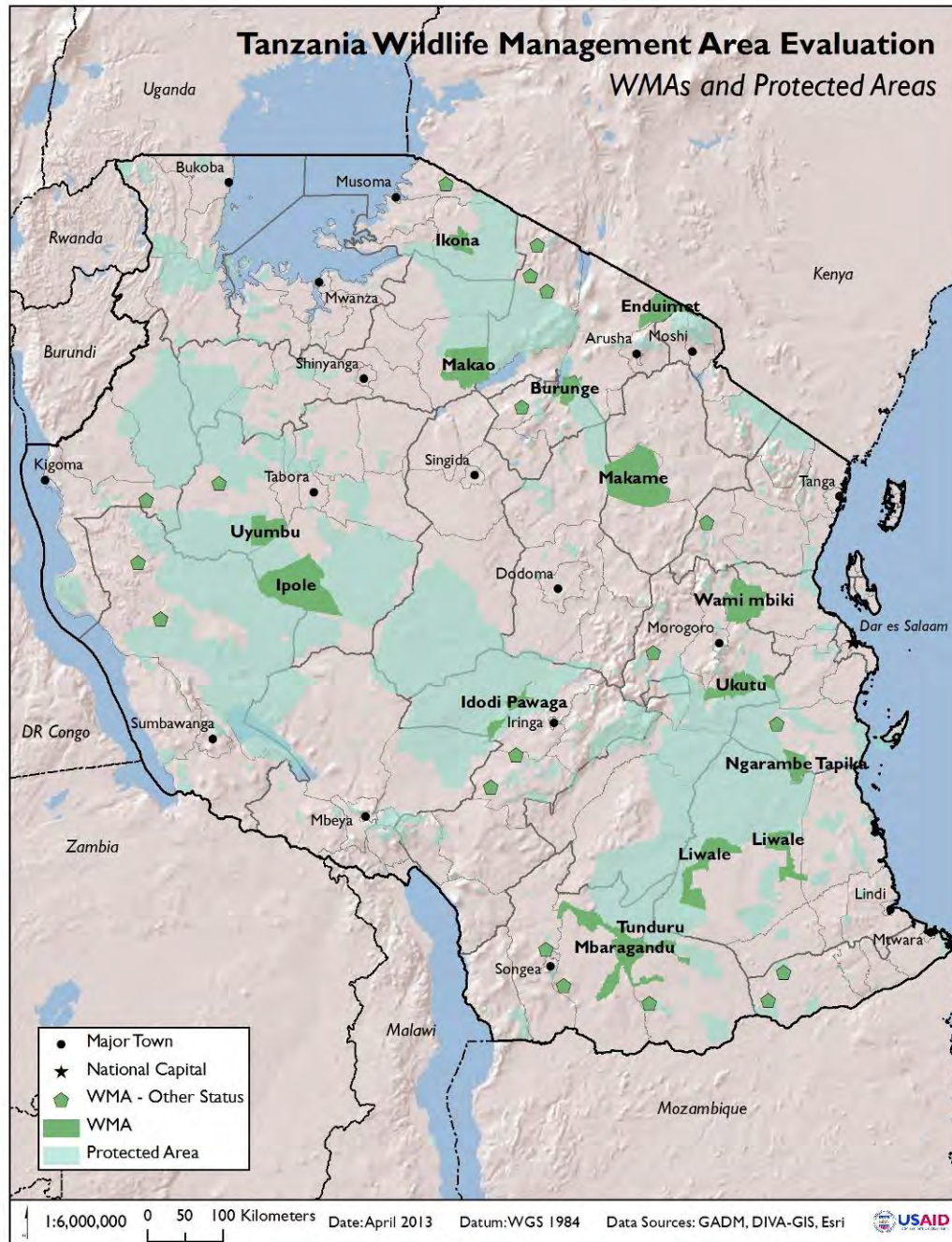
L=low, M=medium, H=high

F=forest, S=savannah, FS=forest and savannah

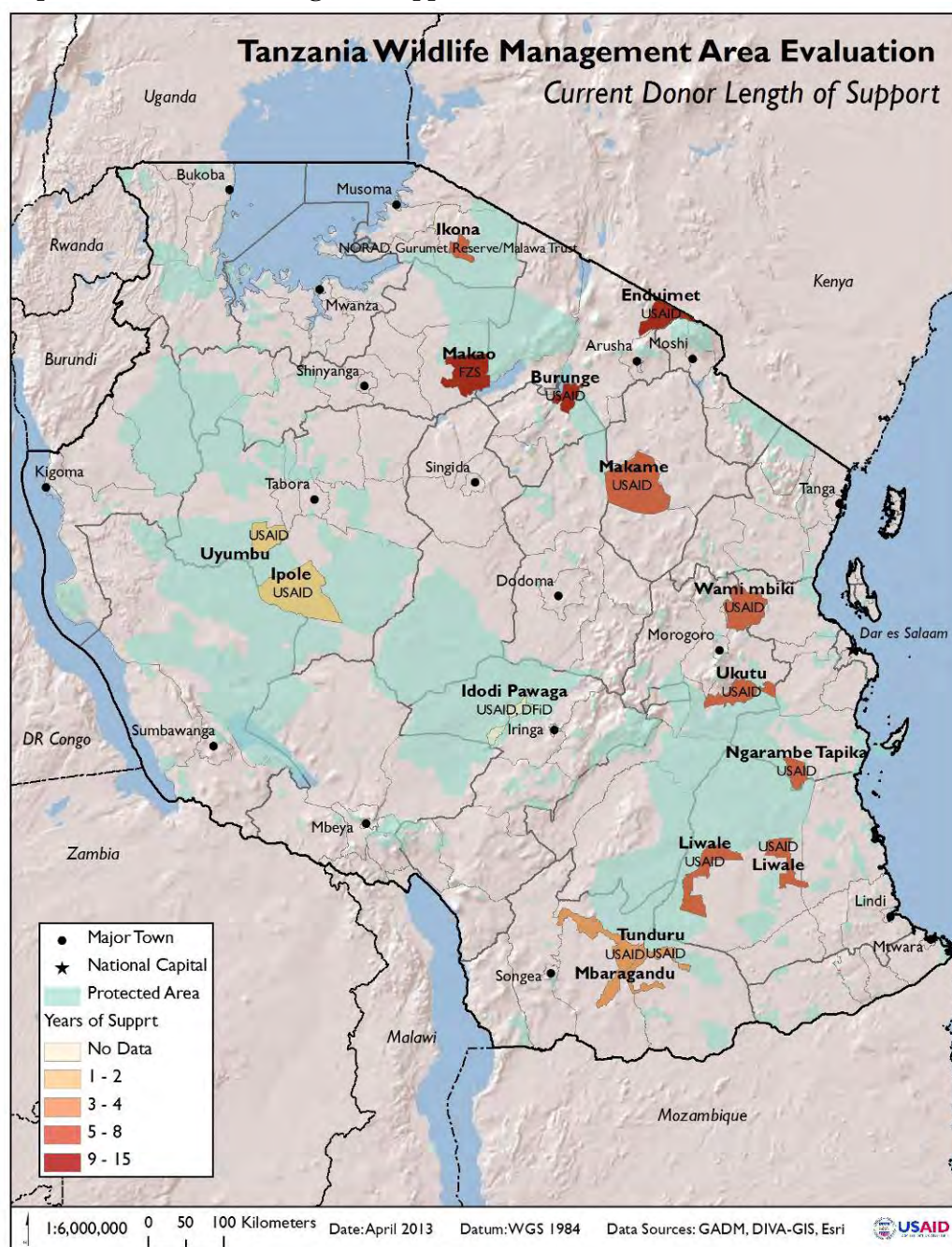
A=agriculture, AP=agro-pastoral, P=pastoral

ANNEX I: MAPS

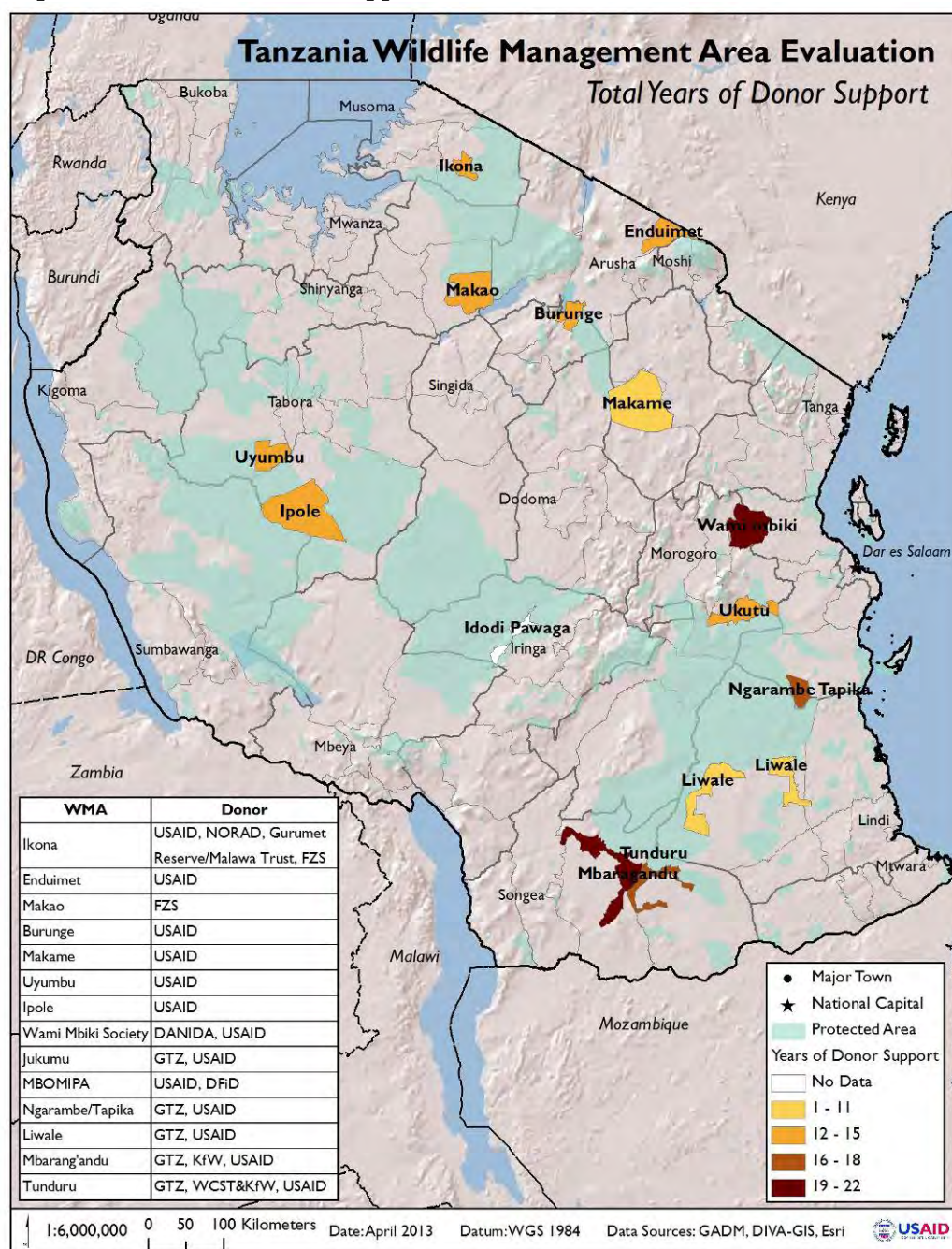
Map 1: WMAs and Protected Areas



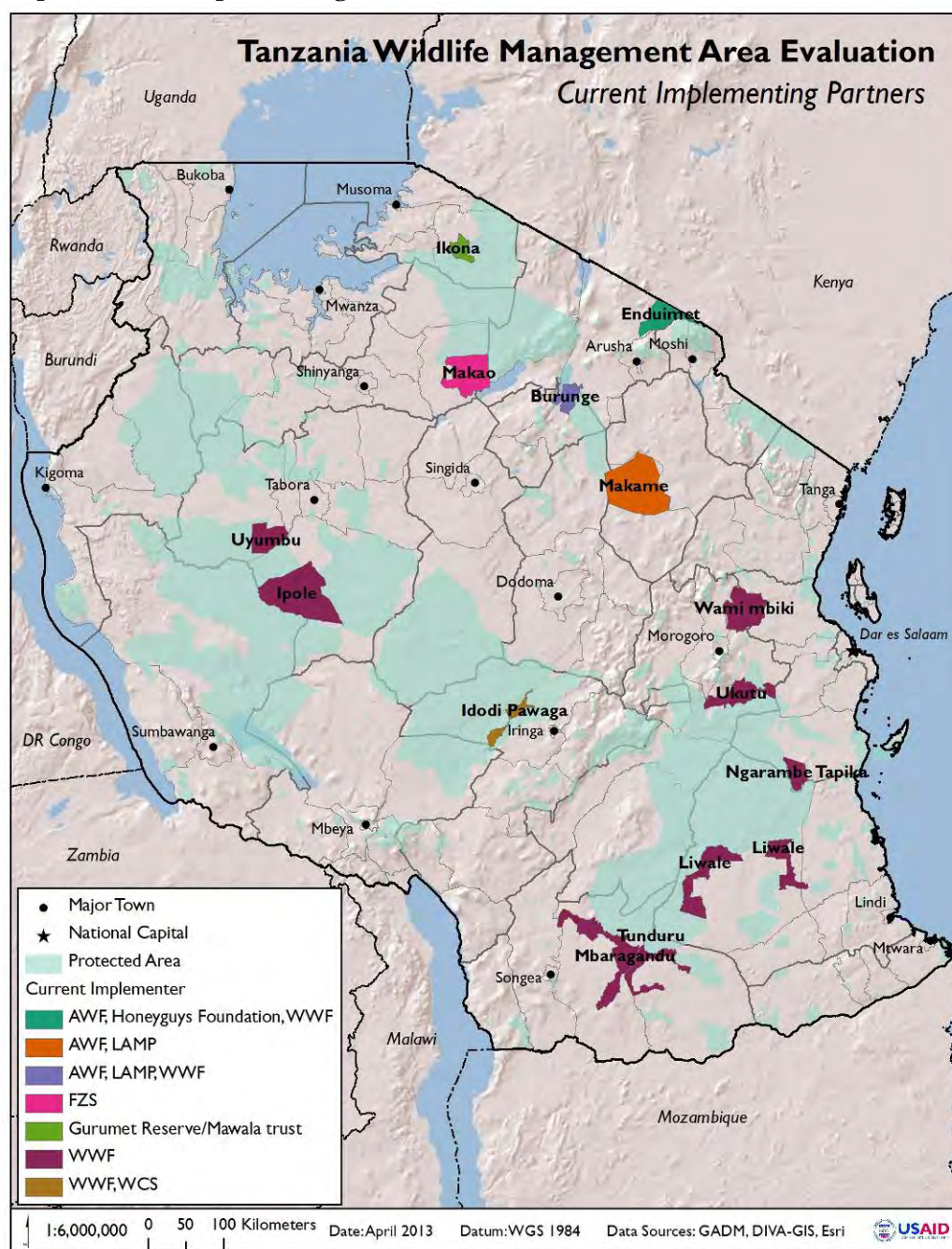
Map 2: Current Donor Length of Support



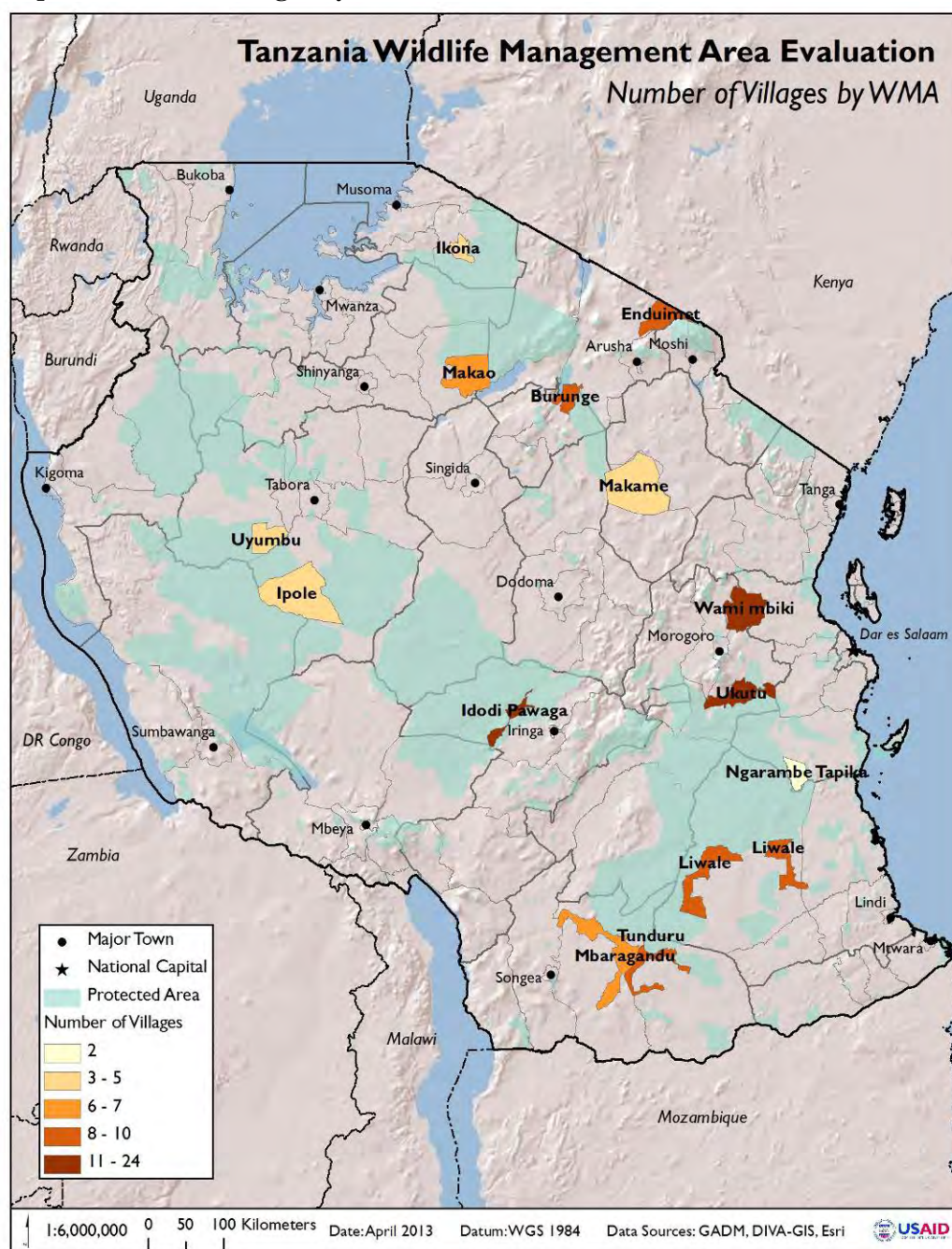
Map 3: Total Years of Donor Support



Map 4: Current Implementing Partners



Map 5: Number of Villages by WMA



ANNEX J: 12 STEP PROCESS FOR ESTABLISHING A WMA

The following 12-step process led to the creation of the first 14 WMAs, from which the evaluation team chose to examine five in the field (cf. Nelson, 2007).

- Village assembly agrees to form a WMA based on village council recommendations on what land to donate.
- Villages form a representative CBO with constitution and register it with the Ministry of Home Affairs
- The CBO prepares a strategic plan for the proposed WMA
- Villages prepare land-use plans, including the future WMA, which must be surveyed, mapped, and registered
- Land-use plans are subjected to Environmental Impact Assessments
- Villages prepare by-laws to support the land-use plans
- The CBO prepares an interim 5-year resource management zone plan or a 10-year (or more) general management plan that zones resource use on village lands and in the WMA.
- The CBO applies to the Wildlife Director for Authorized Association status and is gazetted.
- The AA applies to the WD for user rights to the wildlife inside the WMA.
- AA applies to the WD for a hunting block (if desired for its WMA).
- AA enters into investment agreements
- Investments in WMAs are subjected to EIAs

ANNEX K: SCOPE OF WORK

A. TITLE

Evaluation of Wildlife Management Areas

B. STATEMENT OF WORK/ DELIVERABLES

B.1 BACKGROUND

The Tanzanian Government has demonstrated commitment to conservation with more than 28% of its land area under government managed protected areas. Protected areas, however, have shown to not be sufficient in size to accommodate wildlife patterns which often migrate outside of protected areas, onto community lands causing conflict with the growing rural populations. As Tanzania's population grows, the need for addressing competing land use for both human and wildlife has become more acute. To address these concerns, the US Agency for International Development, in collaboration with the Government of Tanzania, other donors and conservation NGOs, started in 1998 an innovative Community Based Natural Resource Management (CBNRM) approach in wildlife management and rural development which aims to decentralize control of critical wildlife habitat within village lands into the hands of communities. The program approach, referred to as Wildlife Management Areas (WMAs), has emerged as the best approach currently to address competing land use conflicts and at the same time bring increased benefits to those communities. Sixteen WMAs were initially piloted starting in 2004, of which fourteen¹ WMAs emerged with user rights, allowing communities to enter into direct agreements with investors and thereby profit from the sustainable use and management of their wildlife and other resources.

B.2 OBJECTIVES

The evaluation will:

- Assess what have been the key outcomes and achievements of the overall WMA approach for the Tanzanian government, local communities, and conservation of wildlife and other resources in terms of creating increased financial benefits, strengthening governance, improving human-wildlife conflicts, and strengthening wildlife management, etc.;
- Identify whether the policy framework, and WMA institutional structure is effective and sufficient in meeting the overall goal of WMAs in providing benefits to communities and wildlife;
- Identify what opportunities and challenges exist in the sustainability and scaling up of the current approach.
-

B.3 SCOPE OF WORK

1. The Development Hypothesis

The development of WMAs in Tanzania followed the CBNRM premise that if communities are allowed to make decisions and benefit directly from the use of natural resources, then they will have an incentive to invest in and conserve resources (Child 1993, Lewis et al. 1990). The intention of the WMA approach is for it to be a 'community led process' to increase community participation in the protection and conservation of wildlife resources, contribute to improved natural resource management and planning processes, and strengthen local level governance to generate tangible social, economic and financial benefits to communities, through the sustainable management of natural resources.

The process of developing the supporting WMA policy framework at the national level, to support the devolution of authority to communities and at the same time create an enabling environment for communities to benefit from their natural resources, has been long and cumbersome. This resulted in some donors pulling away their funding from the WMA process during the initial pilot phase. USAID has for many years, been the lead donor in supporting WMA policy development and implementation. An

assessment was undertaken in 2007 to assess the implementation process in establishing a WMA; evaluate the design of the pilot phase and to identify factors that could enhance sustainability of WMAs. Although significant recommendations and lessons learned were identified (see Annex A), most WMAs were still at their nascent stages of development.

Since 2007, significant progress has been made in policy reform and development of key regulations. This includes revisions in the Wildlife Policy (2007); adoption of the Wildlife Conservation Act (2009), and adoption of the Wildlife Management Areas Regulations (revised in 2012). In addition the Government of Tanzania has adopted WMAs as a countrywide policy initiative. Management and administrative structures have also been established at both community and national level, including the Authorized Association Consortium - an apex body which is a platform for all WMAs, and a WMA Support Unit housed in the Wildlife Division to support oversight and monitoring of WMAs. Revenue from private investors has significantly increased in some of the WMAs, providing communities with opportunities and financial resources to improve the welfare of their communities and invest in protecting their natural resources. In addition, starting in 2010, five WMAs (Ipole, MBOMIPA, Burunge, Enduimet, and Ipole) received additional support through a 'Cash for Work' program, which employed local laborers surrounding the WMAs for infrastructure development in the WMAs, including building Village Game Scout posts, visitor centers, entry gates, and road rehabilitation.

With the growing concerns in Tanzania around access to land and land tenure security, and increasing population growth resulting in competing land needs for both humans and wildlife, WMAs are increasingly being seen as a good approach to address these issues. In addition, the Government of Tanzania has developed a draft implementation strategy to support the scaling up of WMAs. Three new WMAs have already been established, creating a total of 17 with user rights, and 17 are at various stages of development. WMAs have therefore received much attention without clear 'evidence' on whether this kind of CBNRM model is really effective in bringing benefits to both humans and wildlife. As the interest among donors and the Government grows in supporting this kind of approach, it is important to better understand what the successes and challenges are to determine whether this is the right approach to continue supporting and what is still needed to create a sustainable approach for both communities and their natural resources.

2. Purpose and Scope of the Evaluation

The purpose of the evaluation is to determine the effectiveness and impact of the WMA approach and the relevant policy framework. The evaluation will be used to create understanding on what benefits the WMA approach is bringing to both humans and wildlife, how effectively the implementation of the approach is creating a decentralized and community-led process, as well as to provide recommendations and lessons learned to further strengthen future programming support.

Key to the evaluation is to test the validity of the WMA hypothesis as one which creates incentives for communities to protect and reinvest in their natural resources.

Specifically the evaluation will:

- 1) Assess what have been the key outcomes and achievements of the overall WMA approach for the Tanzanian government, local communities, and conservation of wildlife and other resources in terms of creating increased financial benefits, strengthening governance, improving human-wildlife conflicts, and strengthening wildlife management, etc.;
- 2) Identify whether the policy framework, and WMA institutional structure is effective and sufficient in meeting the overall goal of WMAs in providing benefits to communities and wildlife;
- 3) Identify what opportunities and challenges exist in the sustainability and scaling up of the current approach.

Findings from the evaluation will also support evidence-based strategic thinking and planning, including the development of a new Country Development Cooperation Strategy (CDCS), for the USAID/Tanzania Mission. The evaluation will primarily focus on the initial 14 pilot WMAs which have obtained user rights.

3. Intended Audience

The audience of the evaluation report includes USAID/Tanzania Mission, specifically the Natural Resource Management Team, the E3 Bureau, the Tanzanian Government, including the Vice President's Office Division of Environment and the Ministry of Natural Resources and Tourism, local government and other USG stakeholders, development partners, the implementing partners and beneficiaries. USAID will use the report to share lessons learned with these and other stakeholders.

4. Overall Evaluation Questions

USAID/Tanzania is interested in finding answers to these evaluation questions:

Benefits Received

1. What have been some of the benefits/negative consequences as a result of establishing WMAs?
 - i. for participating beneficiaries, their families, and their communities
 - ii. for government
 - iii. for private sector
 - iv. for natural resources
2. What are the major contributory factors in achieving the intended/unintended results and why?
3. What do communities perceive as some of the significant changes for individuals, families, the community as a whole and the environment, which have happened since the establishment of a WMA (descriptive before and after)?

WMA Design/Approach

1. How effective is the WMA program (design and implementation) in meeting the intended results of the overall CBNRM approach (1) in regards to strengthening Governance; 2) in creating economic benefits for communities; 3) for conservation of wildlife)? What are the strengths and weaknesses?
2. How cost effective (time, money, human resource) is the design of the approach and how could it be more effective?
3. Are impacts on wildlife and benefits to communities being monitored and if so, to what extent is this information being utilized?
4. Does the current design and implementation of the WMA program enable equal opportunities /benefits in regards to gender (men and women), age (e.g. youths: girls and boys), wealth and/or status? Why or why not?

Awareness and Attitudes toward WMAs

1. What is the current level of awareness by participating communities, the Wildlife Division, and local government on the purpose and benefits of WMAs? Are there significant differences across WMAs and if so why?
2. What are participating communities' attitudes (positive and negative) towards the establishment of a WMA and why?
3. Have community attitudes/awareness toward wildlife and protection of natural resources changed as a result of establishing a WMA? Is this positive or negative and why?

Lessons Learned

1. What are some of the key constraints and what are some of the potential opportunities for making WMAs more effective for wildlife and communities in terms of management of natural resources, revenue generation and benefit sharing?

Sustainability

1. How sustainable is the current WMA approach (institutional structure and policy framework) in creating long term benefits and positive outcomes for communities and wildlife?

5. Evaluation Design and Methodology

USAID/Tanzania seeks the services of a contractor to conduct an evaluation of the WMA approach and supporting policy framework in Tanzania. In so doing, the contractor will review the current status of WMA activities and assess impact of the WMAs. The evaluation will focus on the initial 14 WMAs established during the pilot phase (see map, Annex B). Although all 14 were part of the initial pilot phase, each WMA was established with user rights at different times. The process was determined by available funding and degree of facilitation support to the communities, as well as the communities willingness and thereby readiness to become established as a WMA. The attached matrix gives an overview of when the 14 WMAs (highlighted) were established (see attached excel matrix).

The evaluation will take a comparative pre/post analysis, taking a sample of WMAs, to better understand what aspects of the approach bring positive outcomes for participating communities and the protection of wildlife and other natural resources. Although baseline data for all 14 WMAs is available, the data has not been consistently collected across all 14 WMAs and therefore there may be discrepancies in what data is available across the 14 WMAs.

The evaluation report shall meet the evaluation's standard as annexed (Annex C) and generate creditable evidence that corresponds to the evaluation questions being asked.

The evaluation will include the following steps:

1. **Desk Review of existing program documents**: This includes but not limited to:

- ☐ Biennial WMA report (2012)- ongoing, a draft report will be available;
- ☐ WWF Performance Evaluation on WMA implementation (2012)-ongoing;
- ☐ Baseline socioeconomic surveys from five targeted WMAs collected in 2010;
- ☐ WMA Assessment conducted in 2007;
- ☐ Maps of the WMAs-nationwide (2012);
- ☐ WMA Implementation Strategy (2012-2017)- draft document;
- ☐ Land Use and Resource Zone Management Plans of 14 WMAs with user rights;
- ☐ Available baseline data on the 14 established WMAs collected in 2003 as part of the planning process at the start of the WMA pilot programme;
- ☐ Relevant Policy documents and supporting regulations- Wildlife Conservation Act, Environmental Management Act, Wildlife Management Area Regulations, Village Land Act, etc.;
- ☐ Other relevant research reports on WMAs in Tanzania and CBNRM in East and Southern Africa.

2. **Meetings** with Key Informants - the team will be required to meet with relevant key stakeholders, including government (Wildlife Division (CBC support unit), Forest Division, TANAPA, NCAA (Ngorongoro), District Game Officers, District Natural Resource Management Boards, Ministry of Lands,

Village Councils, etc.), donors (USAID, GIZ, DANIDA, Belgium Technical Corporation- BTC), NGOs (WWF, AWF, FZS, Africare, WCS, TNRF, MJUMITA), and CBOs (Authorized Associations, AA Consortium) who are familiar/involved in the design and implementation of WMAs.

3. **Development Partners WMA Mapping** of existing WMAs and the support which has been given to date. Building on existing matrix attached (see attached excel matrix).
4. **Site Observation and Interview Visits** - selected site visits will be required to conduct interviews and discussions with key stakeholders, and beneficiaries in selected WMAs to triangulate data, and fill in information gaps as needed. In addition, both quantitative and qualitative data will be gathered through interviews, focus group discussions, and/or other proposed methods to triangulate findings. The evaluation team will be required to develop an evaluation design, data collection methods, and an analysis plan; using a mixed methods approach based on sound social and natural science methods and tools used in a manner to minimize potential biases. These components will be presented to USAID for review and approval.

From the onset, the evaluation team will conduct an in-brief with USAID/Tanzania, and also host an inception workshop, also detailed in the deliverables. After feedback/changes to the methodology the team will spend an estimated 4 weeks in the field collecting and processing data. The evaluation team will need to closely coordinate with implementing partners (e.g. World Wildlife Fund, African Wildlife Foundation, Wildlife Conservation Society, Frankfurt Zoological Society, etc. and other supporting partners). All data analysis will include gender considerations. The evaluation team will also be required to describe the strengths and limitations of the proposed design and methodology and develop specific recommendations for addressing the limitations in order to enhance as much as possible the quality of the evaluation.

6. Evaluation Team Composition and Requirements

USAID seeks the services of a contractor who will provide a multi-disciplinary evaluation team, who have the relevant qualifications below:

Evaluation Team Leader: This individual will be responsible for completing all the deliverables in the time allotted. He/she will coordinate the overall evaluation effort and be responsible for editing and final compilation of the evaluation report. The individual will have substantial experience and knowledge of Community Based Natural Resource Management approaches. He/She will travel with the team throughout the data collection period.

Evaluation Specialist: This person will have a significant background in undertaking performance evaluations. He/she will ensure that the design of the team's evaluation plan is adequate in answering the relevant evaluation questions. He/she will be instrumental in designing with the team data gathering mechanisms (e.g.: surveys). He/she will see that the findings of the data collected are communicated fully and accurately in the written evaluation report. The evaluation specialist will travel with the team throughout the data collection period.

Technical Advisors: The individual/s will be responsible for data collection and analysis, working closely with the Team Leader and Evaluation Specialist. The advisor/s should be familiar with the country and its logistics, to assist in developing travel itineraries and make necessary arrangements in country. All attempts should be made for the team to be comprised of an equal number of male and female members, as well as inclusion of local (Tanzanian) experts as per USAID Forward agency initiative.

7. Activities

- Start-up
- Planning Phase (in Dar), including briefing meeting

- Mapping of WMA support
- Data Collection and Analysis Phase (in Tanzania)
- Reporting Phase (in Dar), including debriefing meeting
- Reporting Phase

C. DELIVERABLES

1. Evaluation Design and Methodology: The evaluation team will provide to USAID/Tanzania a refined plan for undertaking the evaluation, which includes data collection instruments/tools, and a detailed work schedule. This should be shared for comments no later than 7 business days after the start of the contract. (35%)
2. A draft report will be required no later than 15 working days after the evaluation team completes their field work (35%)
3. The final report is required 7 working days after the draft report is returned to the evaluation team from USAID/Tanzania and its implementing partners with comments, corrections, or needs for clarification. (30%)