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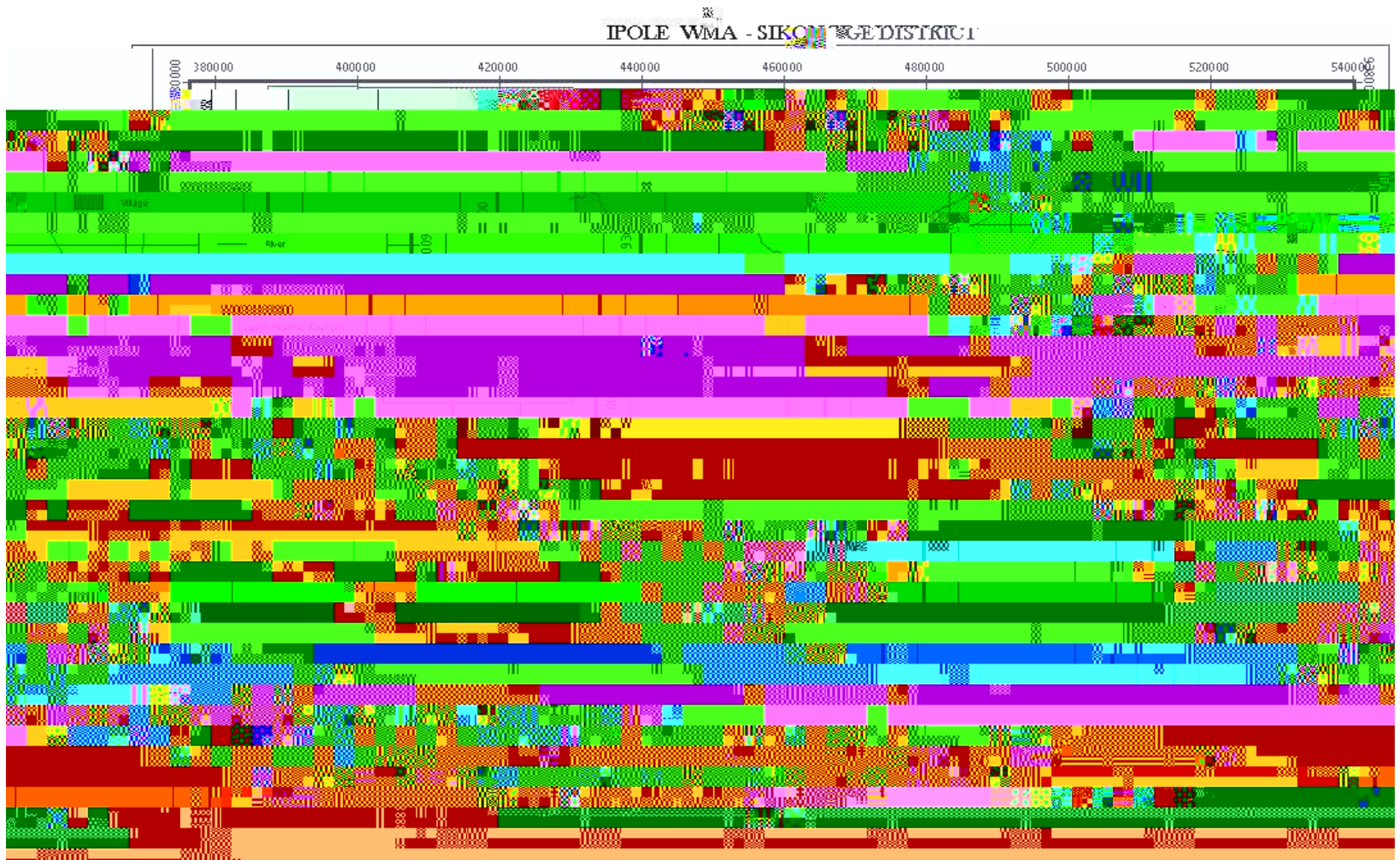
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Map 4: Location of Ipole WMA



a course of leadership management. At the village level, VGSs have been trained to tackle the security aspects.

Africare is responsible for coordinating the activities in the WMA in both Ipole and Uyumbu WMAs. Africare has also been responsible for community conservation around the Ugalla Game Reserve with the aim of creating buffers zones for the reserve. In so doing, it is also addressing issues of poverty alleviation by introducing new initiatives that may lead to income generation.

Villages are responsible for the remunerations to the VGSs. The funds for remuneration come from the proceedings made after sale of caught items. To avoid a tag-of-war between the village governments and the natural resources ommits reg0(a)di8g cs th()] TJETBT1 0 0 1 72.0210.51.95

A major drawback to the CBC programme was lack of a legal framework dealing with community integration within the existing Wildlife Act (1974). This weakness was somehow reduced when a new Wildlife Policy (1998) was adopted by the Government.

Although the TWP made a breakthrough in recognizing the role of rural communities in getting involved in the management and use of wildlife resources in the country, yet the absence of a legal instrument continued to be felt. The recent bold step taken by the Ministry of Natural Resources in gazetting WMAs, Regulations (2002) has opened the way forward. The new move addresses key questions regarding full integration in terms of local communities being now mandated to manage and use wildlife resources. In other words they are now responsible and accountable for the management and sustainable use of wildlife in village lands. This is a historic evolution in the conservation of wildlife resources in Tanzania. It is a major paradigm shift from the previous position whereby wildlife resources in the whole country were the property of government to the new position where local communities now have ownership or use right of wildlife resources in prescribed areas (WMAs).

The Government has released some Guidelines for Designation and the Management of

fact that economic growth and per capital income is still very low in this country. In fact, poverty is the biggest enemy in the rural communities.

It is paradoxical that despite the rich biodiversity, which Tanzania has, the rural communities have been impoverished and their attitude towards government conservation programmes has been negative.

This further impoverished rural communities, and as a result, their attitude towards government conservation programmes has been negative. Subsequently, illegal off-take of PA wildlife resources has continued unabated. The much spoken emplacement of rural people in the recreational use of wildlife is limited and the benefits derived from wildlife based tourism hardly reached the people in adjacent rural areas.

Consequently rural communities viewed the government's perceived value of wildlife, the legislations and policies governing the management of wildlife as antagonistic, which ignore their socio-economic dependence on their wildlife resources. The reaction of the local people is manifested through illicit encroachment into PAs for various consumptive uses and sometimes demands for declassification of a given PA.

4. DISCUSSION OF MONITORING INDICATORS

The primary objective of this study is to compile baseline information for the purpose of developing indicators for monitoring the performance of these and other WMA during the three year trial phase and subsequently. The indicators are being sought from three different perspectives; Social, economic and ecological. The social and economic indicators will be used to monitor respective aspects that will impinge on the WMA ecology and the environment in general as local residents outside strive to meet their various social and economic needs. Meanwhile, the ecological indicators will be used to assess the level of sustainable utilization of the WMA in order to address in due course any unsustainable practices arising due to human activities or other due natural and biological dynamics within the ecosystem.

direct measurement or counting as well as photographs. Records at the District level and those of village government provided useful information, especially those pertaining demographic aspects and village financial records. The means of measuring each of the indicators, which has been selected for monitoring the performance of the WMAs during this pilot phase are indicated under section 8 of this report.

5. METHODOLOGY

The study covered three Wildlife Management Areas (WMAs), which have been described in detail under section 3.0. As stated under the ToR, the main goal of the study was to collect data that would provide baseline information and monitoring indicators in the following broad areas;

Social factors like health, education, water; human demographic structures, administrative set-ups, immigration and emigration of people.

Economic activities like agriculture, livestock, beekeeping, shopkeepers and traders, laborers and other employment opportunities revenue generating sources for each village like charcoal burning and harvesting of timber

Ecological factors covering animal and plant species composition, age and sex structure for animals; habitats condition including availability of water for wildlife and occurrence of wild fires; crops raiding by wild animals plus subsistence hunting.

Communication networks like roads and tracks used for transport

In the case of ecological and environmental factors, the reconnaissance surveys for field truthing were used to assess:

Habitat condition- vegetation types, dominant plant species, any degradation or disturbance on the vegetation and the state of recovery.

Edaphic and environmental factors such as fires, rainfall regimes, droughts, floods,

Wild animals populations, species composition, sex and age structures; animal movements and migrations; current utilization; crop raiding animals plus any other

5.1. Data type and source

Information for the study was collected from primary and secondary source secondary data were collected from various documents, which were provided by the client and those obtained from other sources. Additional information, especially those pertaining to conceptual aspects of the study were obtained from literature on the management of natural resources. The list of documents which were used are presented under Annex 6.1 stated under section 5, the type of data which was required fall under three categories; social economic and ecological.

5.2. Primary Data Collection

5.2.1. Sampling Methods

Rural appraisal (PRA) and structured surveys were used to collect ecological indigenous knowledge about the WMA as well as socio-economic information. The PRA focus group members were selected from among the villages. In most cases prior information was sent to the villages such that the focus group included about 20 people who were representative of the village population by gender, age and location within the village in a few cases such prior information on the selection criteria. Efforts were then made to get as representative a sample as possible.

In addition there were discussions with key informants both within the villages as well as district regional officials. Information about the volume of sales was sought from owners of shops and kiosks who were willing. The list of people who were contacted is provided under Annex 3.

Multistage sampling was done to select villages and respondents for the structural survey. For Ipole two villages were selected represent the furthest from the WMA boundary (Ipole)

5.2.1.1. Data Collection Instruments

a) PRA and questionnaire Administration.

To facilitate collection of primary data, a number of instruments were used, including a checklist of question to guide discussion during focus group discussion. This is appended under Annex 4. A pre-coded questionnaire was developed and used for the structured surveys. It is given in Annex 5. All three research were involved in the PRA. As stated earlier two research assistants administered the questionnaire for the survey.

b) Observation and Transect walk.

Observation was used to collect both socio-economic and ecological information on social-economic aspects observation was made on the general well being of the village in terms of type of house, performance of crops, which were in the field and other qualitative aspects, which are reflected in the report. In the case of Wami

- ii. Assessment done using road transects surveys: Road counting of animals was conducted in each of the three Pilot WMAs in order to assess species composition; age and sex structure and habitat for each species
- iii. Use of indices such as night calls for carnivores, spoor and dung or droppings.

5.2.1.2. Key Informants

Discussion with key information mostly involved government staff and political leaders. Visits were made to Regional Commissioners in Tabora, District Commissioner and District Executive Director in Sikonge. However at Sikonge the substantive District Commissioner was out of office on other duties during our visits. Discussion was held with the Acting DC. The team met the DED of Sikonge District and the District Natural Resources Officer, the District Game Officer, and the District Forestry Officer.

Other key informants who were contacted include the

through direct observation in the field. Results for the analysis are discussed in section 7 of this report.

5.3.2. Structured surveyed

Information from the structural survey was analysed using the statistical package for social science (SPSS). Frequencies Means and range were computed. The outputs were summarized in table and they are discussed in section 7 of the report.

5.3.3. GIS Data

Maps collected from the Africare office in Tabora were digitized and converted into digital format at the IRA GIS lab. The maps show the location and distribution of the villages within the Uyumbu and Ipole WMAs. Other information shown on the maps included drainage systems, distribution of game and forests resources.

6. FINDINGS

6.2.Social Aspects

6.1.1. Location and Size:

Ipole Pilot Wildlife Management Areas has four villages, namely Ipole, Msuva, Idekamiso, and pole, Utimule. All the four villages are located in Ipole Ward, Sikonge Division in Sikonge District. Ipole village is an old settlement which started during the colonial period and currently it has five sub-villages, namely Ipole Kaskazini, Ipole Kati, Ipole Mashariki, Ipole Kusini, and Ipole Kininga. Msuva village is has three sub-villages, namely Msuva, Ulyampumba, and Mkolo. In the past villagers were living in scattered settlements, but were brought together at the current location in 1974 during the villagization exercise.. Idekamiso village has three sub-villages, namely; Ngoyo, Kanoge, and Idekamiso. The village was originally a sub-village of Utimule village and was registered as a separate village in 1999. Utimule village has three sub-

Villagers were brought together at the current location in 1974 during the villagization exercise.

6.1.2 Population:

The village distribution of the number of households and total population in the Ipole WMA by village and sex is shown in the Table 6.1 below.

Table 6.1: Number of Households and Population Size by Village

Villages	No. of Households	Males	Female	Total	Average
Ipole	600	-	-	2,328	3.9
Msuva	276	-	-	1,896	6.9
Idekamiso	216	518	545	1,063	4.8
Utimule	304	738	940	1,678	5.5
TOTAL	1,396	-	-	6,965	5.0

The majority of the residents of Ipole village are Wanyamwezi. Other tribes include Wasukuma, and Waha, Wanyaturu and Wafipa. Msuva, Idekamiso and Utimule are dominated by the Sukuma people. In Idekamiso village, the Sukuma comprise about 75% of the total population. Other tribes in these villages include the Wanyamwezi, Wanyaturu Wafipa, Waha, Wagogo, and are the Wanyiramba.

In-migration in Ipole, Msuva village is largely dominated by the Sukumas from Shinyanga

Few people out-

areas like Ng'ongo, Kamalampaka, Ng'walupambe and Sinde. A close assessment of the Ipole village indicates that most of the traditional beliefs, customs, rituals and taboos have been abandoned due to the influence of religion in the area. In Msuva village, it was reported that the Mpuya areas located in the current WMA protected areas was used in the past as a burial places for the local chiefs. This area is traditionally protected and people are not allowed to cut trees. Some people regularly visit the place for rituals.

With regards to taboos, there are various tree species that are not used for firewood. The villagers in Ipole named *mlugala*, *mumwaga*, and *mubanga* trees to be among the trees that are not used for burning. Specifically, it is believed that if *mumwaga* tree is used for cooking, there will be no peace in the household. Similarly, if

Msuva village has no office and they are currently using an old school building that was used as a teacher's office in the past . Photo 2 shows the meeting at Msuva village which was conducted under a shade of a tree around the school compound.



Photo 2: Focus Group Discussion in Msuva Village (Meeting done under a tree shade near the school), Sikonge District

There are plans to construct a village office during the years 2003. It was reported that, Msuva village has been facing leadership problems for quite a long time. It is only recently that a new Village Chairman has been elected to replace the one that was removed from office due to misuse of funds. Due to this problem, Msuva village is the only

6.1.8 Knowledge of the WMA⁷ Concept:

Generally, there is a high level of awareness of the WMA concept in the villages. Efforts have been made to educate the community. An added advantage is the presence of a very aggressive and knowledgeable District Council Chairman who resides in Ipole village. With the assistance of Africare, local communities have understood the importance of wildlife conservation and are increasingly becoming positive in terms of attitude and practise. Ipole village is the main gateway to the Ugalla Game Reserve, and into the Ipole WMA. Local communities have been educated on the need to participate in wildlife conservation. The villagers in Msuva village generally understand the concept of WMA.

Though the communities have been educated on the need to participate in wildlife conservation, there is still need for continued efforts to educate and convince villagers that the WMA concept is real and possible. It seems villagers are still sceptical. Villagers have started patrols to protect the area earmarked for the Ipole WMA. Evidence from the PRA discussions in Idekamiso demonstrates that hunting of wildlife is still going on. Villagers are, however, very reluctant to give information of the presence of hunting. In Utimule village, the local community has started to implement some of the sustainable utilization strategies like the use of improved beehives which would save the miombo trees from which the bark are taken off to construct traditional beehives.

During the PRA meetings villagers in Ipol and, Msuva village mentioned conservation, security, provision of conservation education to the public, sustainable utilization of the existing natural resources, and benefit sharing as their main responsibilities. Most villagers have high expectations of been allowed to hunt wildlife and benefit from the quota allocated for the village.

Each of the participating villages has trained 3 VGSs who are responsible for the day-to-day patrols in the protected area. Msuva village has trained 10 VGSs. Idekamiso has trained 16 VGSs who are involved in patrols. Similarly, village leaders have received training in village leadership, seminars, and study tours have been provided to various areas involved in wildlife

⁷ WMA refers to Wildlife Managing Areas.

management. In Utimule village, leadership training had been given including the introduction of Mlonge as an alternative crop to the villagers.

6.1.9 Wildlife Related Court Cases:

The natural resources and environment sub-committees are responsible for the protection of the area earmarked for the Ipole WMA. Though it was reported that villagers are carrying out patrols, no case has been reported so far to the court of law for trespassing or for illegal possession of wildlife trophies in all villages.

There are few natural resource use related cases that have been sent to the village reconciliation committee. The VGSs in Ipole managed to confiscate timber, which were handed over to the Village Reconciliation Committee for action. The leadership vacuum that existed for a long period in Msuva village largely contributed to the lack of seriousness in the village security system. Efforts are being made to ensure that there is close collaboration between the current leadership and the community at large to ensure full community commitment and participation in natural resource conservation issues. In Idekamiso, there are no cases that have been sent even to the to the Village or Ward Reconciliation Committee. The cases sent which were sent to the village reconciliation committee in Utimule village include the one regarding livestock trespassing into other peoples' farms, and possession of logs and timber. The owners of the logs and timber managed to escape and these resources were confiscated and used for constructing classrooms.

The Wasukumas have a very famous traditional security system known as ⁸. It is, however, surprising to note that the *Sungusungu guards* are not involved in any wildlife conservation or protection activities. This is one of the weaknesses that reflect low understanding of the WMA concept at the village level. In most cases, the VGSs are referred to as the ⁸. This situation has to be tackled in order to educate the villagers that security of the WMA is a responsibility of everybody and that every villager is required

⁸ Sungusungu is the traditional guards that operate at village level and they have a network of collaborators in

to participate fully both in the conservation and in the benefit sharing. In this case, efforts to involve the *Sungusungus* in the protection responsibilities would be eminent.

6.1.10 Collaboration With Other Stakeholders:

There are regular meetings between villagers of Ipole and Africare. It was reported that 5 or more meetings were conducted during the 2002. There is also regular implementation reporting for implementation and training seminars, which are conducted in the village by both Africare and TASAF. Villagers in Ipole reported that there is a Wildlife Officer in the village who is managing the main gate to Ugalla Game Reserve and the Ipole WMA. There is also close collaborating with other officials including the District Forest Officer, the Water Resources Officer, and Land Officer. So far Ipole village has completed its land use plan through the VLUM project.

Though the development partners were eager to collaborate with the village community in Msuva, local communities have for a long time not been responsive. There were several cases whereby only the development partner attended concined the meetings while no villagers were able to attend. Using the example of the classrooms that were constructed through self-help under the MEMEM project, we can see a sense of readiness if the leadership issue in Msuva is permanently resolved. The villagers reported that they have on various occasions met with the DNRO, DWO and other staff from the region, district, division, and ward levels to discuss issues of natural resource conservation. Though not completed, the village has initiated the VLUM exercise in which they collaborated with regional and district officials to carry out the village land use-planning exercise.

In Idekamiso, villagers mentioned that there wereregular meeting between the local community and staff from Africare. Similarly, there are monthly meetings between village leaders and TASAF to discuss development issues including progress of the school project. Close collaboration was also reported between the village and various natural resource management departments at the district council level. These include the DWO, DFO, DNRO, and DALDO. In addition to these, there are staff from the above mentioned departments who are stationed at the Ward and Divisional levels.

In Utimule, villagers indicated presence of regular visits and meeting between the community and staff from Africare, and monthly meeting between village leaders and TASAF to discuss progress of the dispensary project. Close collaboration between the village and various natural resource management departments at the district council was noted. These include staff from the land, wildlife, forestry and agriculture departments. The village has been involved in the VLUM in which they collaborated with regional and district officials to complete the village land use planning exercise.

6.1.12 Social Services

Education: Ipole village has a primary school, which has Class I-VII. There are 7 good quality classrooms and 8 teachers, but there are no teachers' houses at the school. Some of the teachers have built their own houses in the village and some are living in rented houses. The school has 598 pupils. About 6, 10 and 4 pupils were selected to join secondary education in 2000, 2001, and 2002, respectively. Msuva village also has a primary school, which has Class I-VII. There are only 4 good quality classrooms and 2 more are still under construction. The school has 5 teachers but there are no teachers' houses. All teachers live in Ipole village, some 5 kilometers away. The school has 311

Health: There is a dispensary in Ipole village. Construction is underway to improve and expand the facility so as to provide better services. There is 1 Medical Assistant, 2 nurses, and 2 Health Officers at the dispensary. Msuva village has no health facility at the moment. Health services for this village are obtained from Ipole village (some 5 km) or at Sikonge DDH⁹ (about 36 km). Like Msuva, Idekamiso village has no health facilities within the village. The nearby health facility is Ipole which is more than 15 kilometres away. Referral health services are obtained from Sikonge DDH. Utimule village also has no health facility at the moment, but villagers are constructing a dispensary building through TASAF assistance. Health services for Utimule villagers are also obtained from Ipole dispensary (about 28 kilometres) or Sikonge DDH (some 50 kilometres away) for referral purposes. Generally, health service provision in Msuva, Idekamiso and Utimule villages are poor and people depend on the Ipole dispensary for such services.

Water: There is a piped water system in Ipole village, but the system is not working due to lack of fuel, despite the fact that the pump is in good working conditions. Villagers still have a free water mentality despite the changes made in the government policies as reflected in the Rural Water Policy (URT, 2002). There is no Water Committee in the Village, which would have been responsible for managing the existing piped water system. There are many locally constructed shallow wells of up to 30 feet deep. In Msuva village there are about 3 self-constructed shallow wells. However, these wells are not protected and cannot be considered to provide safe and clean water to the community. Also there are rivers and tributaries that provide water on seasonal bases to livestock and in some cases for domestic use. The Koga river has water throughout the year but other tributaries dry up and just remain as ponds during the dry season. The only reliable sources of water in the Idekamiso and Utimule villages are the traditional wells and locally constructed *bwawas* (charco dams) for livestock. There are about 6 *bwawas* in the Idekamiso village but most of which dry up during the dry season from September. In Utimule village, there are about five locally constructed *bwawas* and 3 reliable traditional wells.

⁹ District Designated Hospital

6.1.13 Community Solidarity:

Community solidarity in the villages under Ipole WMA is high. Villagers are involved in self-help projects including the construction of classrooms and dispensary buildings. In Ipole village the level of development attained is a reflection of the people's willingness to adopt change and collaborate to bring common development for the benefit of all villagers. However, community solidarity in Msuva village is still poor because of poor leadership in the past. A new leadership has been elected recently and ward, division, and district leaders

The bus fare from Ipole to Sikonge is 500 shillings. When the bus to Mbeya is in service, the fare from Utimule the furthest from Sikonge town is 1, 000 Shs. Bicycles are the main means of transportation. Between 70% and 80% of the households own bicycles in each village. The rental rate for bicycles is between 500 and 1,000 Shs for self-drive, depending on the distance. If a driver is also required the price is 2,500 from Utimule to Ipole. Other economic services include a dip at Msuva and a livestock market (*gulio*) at Idekamiso. The cost of washing one cow is Tsh. 50 per head. Livestock keepers practice “¹⁰ system, whereby livestock are moved to distant locations during the dry season and are brought back to the village during the rainy season. The main criteria for the selection of places to send livestock during the dry season are availability of reliable water and pasture.

6.2.2 Economic Activities

Farming is the most important economic activity, being practiced by all households. This is followed by beekeeping, which involves 20% of the households at Idekamiso. Msuva and Utimule villages have 25%, 30% and 45% respectively. Livestock production was mentioned as being important in four villages. Idekamiso village which is almost exclusively settled by Wasukuma as many as 75% of the households involved in livestock keeping. The other villages have only about 5 to 6% of the households involved in this activity. Fishing is most important at Msuva where about 20% of the households are said to be involved. Utimule and Ipole had 3% and 2% respectively. Timber production is important at Ipole and Msuva, involving 20% and of the household respectively.

Business, including trading in livestock was mentioned in all four villages representing 20% of the households at Idekamiso and Utimule while Ipole and Msuva reported 3% and 2% respectively. It should be noted that at Utimule and Idekamiso villagers who buy crops from other villages for sale at Ipole or Sikonge were also classified as being involved in business. Traders from outside normally don't reach these villages due to poor transport. Employment was only mentioned at Ipole where about 10% of the households are said to be involved working at the primary school, church and government employees at the division and ward offices, which includes extension staff in agriculture, forestry, wildlife and community

¹⁰ The Lubaga system is a traditional system of transhumance whereby livestock keepers send their livestock far away outside the village to camp for a while in places where water and pasture are assured. This is actually done during the dry season. When the rain season starts, the livestock are brought back home.

development. The number of employees was only given for teachers being 4 at Msuva and 5 at Utimule.

Common businesses are kiosks/*genge* and milling machines, which exist in all the villages. Utimule, the furthest from Sikonge has the highest number of Kiosks (8) and *genge* (4). There were 4 carpenters at Ipole, 5 at Utimule and 3 at Msuva. The number of tailors was 3 in all villages, except at Utimule where there was none. There are many masons at Ipole and

the household income. Other expenditure items represented between 3 – 5%. Table 6.4 summarizes the expenditure pattern for each village.

The wealth ranking of a household is closely related to the number and type of economic activities they undertake. Maize, rice, groundnuts, sorghum, and cassava are grown in all

Most of the farmers do not use fertilizer, except for tobacco where they receive inputs on credit from companies that buy tobacco. However, the use of manure especially among Wasukuma, is quite high. Maize that is planted on a previous kraal may yield as high as 20 bags per acre. But, for the majority of farmers obtain low yields due to low input use. This explains the high average proportion of households in the middle (49%) and low ranks (23%).

6.2.4 *Utilization of Natural Resources*

The list of most commonly used natural resource products include firewood, thatching grass, poles and rope for construction, timber, mushroom wild vegetables, medicine, fish, game meat, honey, pastures, grass for mats and baskets. Sand was only mentioned at Ipole. Resources that require permits include timber, beekeeping, game hunting, fishing and grazing within Ugalla game reserve. The most important natural resources businesses are livestock production, beekeeping, timber production, fishing and grass for making baskets and mats. The latter was only mentioned at Idekamiso.

Direct use value was mentioned as the main reason for having interest in the sustainable management of natural resources. Ecological value was only reflected at Ipole village. It was reported that local people could obtain a permit to get game meat for special occasions such as festivals. However, illegal hunting was common, sometimes involving ruthless hunting methods, by hunters who come from Sikonge and Ipole. The pilot WMA of Ipole also falls within the Udunda hunting block, which is currently leased to the Northern Hunting Company. Potential business from the designated WMA, which were proposed by the respondents include; sustainable tourist hunting, hunting by local people to obtain game meat, timber production, beekeeping and making slippers for the railway industry.

Working in collaboration with the Village Land Use and Management Program (VLUMa97(c2ping2p8.9

most common means of accessing land is by customary tenure and allocation by the village government. The land frontier has been closed at Ipole village, but still open at the other three (Msuva, Idekamiso and Utimule). A market for land is emerging at Ipole where land can be rent for Shs 2,000 per season or bought at Shs 10,000 per acre.

6.2.5 Village Government Income, Expenditure and Development Plans

Information about income was only available at Utimule. At the other villages information was either not available or very scanty. During the last year (2002), Utimule village had income from the following sources (with the amount indicated in brackets); contribution from villagers (Shs 100,000), crop cess (Shs 47,720), market tax (Shs 27,000), other sources (Shs 100,000), all adding up to Shs 235,420 on average. The main items of expenditure include construction of classroom (Shs 89,200), Office expenses (Shs 18,200), hospitality for visitors (Shs 17,600), allowances (Shs 12,700) and payment of previous debts (Shs 69,000), all adding up to Shs 206, 120. This reflects a very low level of village government revenue, which means the ability to undertake significant village development projects, is also limited. The fact that records were not available in the other three villages and incomplete at Utimule is an indication of the poor state of record keeping and management of village government financial resources. In all villages the Annual General Meeting (AGM) for the previous year

years. They also plan to construct two houses for teachers. Sources of funds for these projects were not specified.

6.2.6 Development of the WMA

The proposed WMA at Ipole has been managed under community-based conservation, which has been supported by Africare. Steps towards forming the WMA have therefore been; mobilization of villagers to inform them about potential benefit from joining the CBC initiatives. Villages then contributed land for CBC. Village scouts have also been trained and village environmental committees have been formed. The collaboration among villages within the WMA has also facilitated ease in solving boundary conflicts. A community-based organization (CBO) has been formed (HIMAUMII) and a constitution is being developed. Training that has been received by some of the villagers, aimed at providing them with alternative economic activities, which include alternative crops such as sunflower and moringer, and adding value through procession of sunflower into oil.

Problems that are related to the process of forming a WMA include; boundary conflicts between villages, which was stated at Ipole, Idekamiso and Utimule. Illegal timber harvesting was also mentioned at Ipole, while crop damage due to vermin was only mentioned at Msuva, and Ipole, where crop loss due to vermin was estimated to be up to 75% - 100% if steps to guard crops are not taken in time. The most common vermin include; elephants, wild pigs, monkeys and wild pigs.

6.3. Ecological Aspects

In Ipole WMA, game census and habitat assessment was undertaken for a day each. The survey took place on the 1st March 2003. Though the census crews left their base camps early in the morning, yet it was not easy to arrive at the starting points before 9.00 in the morning.

The game census procedures outlined for Wami-Mbiki were the same for Ipole WMA. However, the distances covered by the road line transects for the two areas were much longer than those of Wami-Mbiki. Ipole transect was 48.4km. Visibility could be taken to be almost the same as that experienced in Wami-Mbiki, although some areas of Ipole were open wooded grasslands.

The Ipole WMA is indeed rich in wildlife during the dry seasons of the year. Table 6.8 summarizes the list of animal species that were mentioned by villagers in the respective villages during the PRA meetings.

Table 6.8: Summary of

catchment forests in both Mvomero and Morogoro Districts. Encroachment was also noted in the river valleys and some virgin forest land on the Bagamoyo District side of the Wami River distributaries.

- b) Preparation of village land use plans is needed for all the villages forming the Wami-Mbiki CBO.
- c) Capacity building at the village level and also at the CBO level to enhance the administration of the WMAs.
- d) Good governance through streamlining and proper definition of areas of responsibility, accountability and decision making structures in favour of the communities. Presently the Regulations and Guidelines give authority and mandate to the Director of Wildlife over the WMAs. This may not enhance true devolution of power to the local communities as originally intended.
- e) Benefits accruing from the WMA economic activities should go to the community based organization (CBO) since it is the one that is active on the ground. The Government should get its share through normal taxes paid by the communities.
- f) Put in place a plan that will allow for sustainable use of natural resources. Determine population levels for hunted game animals; set realistic hunting quotas and supervise hunting activities to adhere to set quotas.
- g) Monitor regeneration of degraded vegetation especially timber species which had been heavily exploited by putting in place a recovery programme to improve species diversity.
- h) Building capacity of villagers and therefore the CBO to enable for effective control of illegal activities.
- i) Control the exploitation of woody plants for production of charcoal and timber.

8. THE WAY FORWARD

The intention of establishing the pilot WMAs is to ensure that 2

government. In order to realize the objectives of establishing these pilot WMA, each WMA must strive to complete setting up the institutional set up to facilitate the operationalization of the WMA. According to the guidelines, which have been issued by the Ministry of Natural Resources and Tourism, they require that each pilot WMA should complete a series of steps for it to become operational. The table below summarizes key steps and the status of accomplishment within each pilot WMA, which gives an idea of what remains to be done and therefore provides a roadmap on the way forwards towards becoming an operational WMA. These involve designation of the WMA area and formation of the CBO, which will often be the designated Authorized Association. Although these steps may take place concurrently, they are presented in Table 8.1 separately for clarity.

Table 8.1: Level of Development of Pilot WMA

Activity	Level of Attainment		
	Wami-Mbiki	Uyumbu	Ipole
A. Designation of WMA			
1. Consultation with village members, approved by village assembly to designate part of the village land for CBC as WMA	✓	✓	✓
2. Application made by village(s) to Director WD for designating part of village(s) land as WMA along with:	✗	✗	✗
Certified copy of Village Assembly minutes endorsing designation	✓	✗	✗
Dully completed information data sheet as completed by District Council	✗	✗	✗
A certified copy of registration of CBO	✓	✓	✓
A Land use plan approved by Village Assembly	✗	✓	✓
OR Minister designates Pilot WMA	✓	✓	✓
3. Director WD approves or rejects application for WMA	✗	✗	✗
4. Director WD assigns reasons for rejecting application to become WMA	✗	✗	✗
5. Director WD forwards to Minister (within 14 days) successful application of WMA for publication	✗	✗	✗

in Gazette			
6. Minister issues certificate of authorization	×	×	×
7. Designated WMA gazetted according to regulations	×	×	×
B. Formation of CBO and Designation as Authorized Association (AA)			

11. Appeal by unsuccessful CBO lodged to Minister within 30 working days	×	×	×
12. Successful AA enters into contract with investor for using WMA resources in accordance with GMP	×	×	

Rwegasira T. N. (2001). “The role of Community based conservation: A case study of Wami-Mbiki Community based protected and utilization project,” Morogoro/Bagamoyo, Tanzania. A special project submitted in partial fulfillment for the degree of bachelor of Science in Wildlife Management of Sokoine University of Agriculture

55	Adiana Lucas	Member	54	Mbogo Sadiki	Member
		Member	56	Iddi Mlatwe	Member

NO.	NAME	IZENGABATOGIL WE	NO.	NAME	IZENGABATOGILWE 28/2/03
1	Jumanne Mange	Village Chairman	2	William Kasisa	Village Secretary
3	Saidi Hamisi	Member	4	Mussa Ramadhani	Member
5	Ramadhani Mzata	Member	6	Mathias Nyambebe	Member
7	Clement Yohana	Member	8	Daniel Kampen	Member
9	Magolofa Jumanne	Member	10	Dina Kiswagala	Member
11	Fatuma Masudi	Member	12	Mariam Masudi	Member
13	Samweli Seni	Member	14	Bratton Moses	Member
15	Kinga Machebe	Member	16	Hamisi Khakensa	Member
17	Seleman Masudi	Member	18	Hasan Hamisi	Member
19	Sophia Moses	Member	20	Method bigobo	Member
21	Mashaka Shaban	Member	22	Mohamed Shaban	Member

***Appendix2: Consultants Meeting With Donors and Facilitators of Pilot
WMAs in Tanzania***

No.	Name
1	

7. Steinbuck

Serial #	Species	Total observed	Males`	Females`	Young and Juveniles	Habitat or comment
1.	Transect One	1	-	-	-	<i>Mi194 53.544 34.44 i</i>

	village? (Salaried) (VG, FGD)	
19.	What is the consumption pattern of people in this village? (What is the staple food in the village? How many meals do families have per day? (VG, FGD)	
20.	What is the wealth status of villagers (Give rough estimate of proportions of poor, middle and rich categories. Also get criteria for categorization stated by villagers e.g. number of cows, size of cultivated farm, business ownership of assets etc.) (VG, FGD)	
21.	How is the availability and access to markets? (Do traders come to buy goods in the village or do village traders take goods to outside markets? Do buyers offer	

	crops are raided and by which animals?	
22.	Can you estimate the area of farmed land that is raided by wild animals and the value of the crops lost through loss due to vermin	
23.	Do animals attack human beings and livestock? If so, what animals are responsible and what is the extent of attack per year	
24.	Are there diseases, which are transmitted between wild animals, livestock and people (zoonotic)? If so, what are these diseases and which animals are involved? And to what extent?	

6. Occupation of head of household
 - 01 _____ Farmers
 - 02 _____ Fisher folk
 - 03 _____ Employed/have permanent work
 - 04 _____ retired
 - 05 _____ unemployed
 - 06 _____ casual worker
 - 07 _____ livestock keeper
 - 08 _____ Other

7. Where were you born?
 - 01 Same village
 - 02 Same ward different village
 - 03 Same district different ward
 - 04 Same region different district
 - 05 Other regions

8. If not born in this village when did you start living in this village?

9. Which factors influenced your movement to this village?
 - 01 _____
 - 02 _____
 - 03 _____

10. Are there people from your household who have moved out of this village?
 - 01 Yes
 - 02 No

11. What is the age and sex characteristics of those who moved out?

NO.	Age	Sex	Reasons for moving
1.			
2.			
3.			
4.			

12. Which factors influenced your movement from that village?
 - 01 _____
 - 02 _____
 - 03 _____

13. Are there people from your household moved in to village?

14. What is the age and sex characteristic of those who moved in?

NO.	Age	Sex	Reasons for moving
1.			
2.			
3.			
4.			

SECTION B: WATER SOURCES SITUATION

15. Water source table

	1.5 Which source of water do you use? <i>(Check all that apply)</i>		15.3 Amount that you pay per unit Pay nothing (0) Tshs/m3 or Tshs/20L bucket (please specify)	15.4 Amount of time your household spends collecting water Minutes/day (including walking and waiting time)
	15.1 Wet season	15.2 Dry season		
1) Private connection to piped water				

handcart, other)				
6) Rivers and streams				
7) Spring				
8) Other; specify _____				

17. What is the primary method you use to treat your water? [do not prompt]
- _____ (00) None
 - _____ (01) Boiling
 - _____ (02) Filtering
 - _____ (03) Settling
 - _____ (04) Chemical treatment
 - _____ (05) Other, specify _____

SECTION C: SANITATION SITUATION

18. What types of toilet systems does this household usually use?
- _____ (00) No facility
 - _____ (01) Pit Latrine
 - _____ (02) Filtering
 - _____ (03) Pour Flush toilet
 - _____ (04) Public Latrine
 - _____ (05) Other

Solid Waste

19. What is the most commonly used mode of disposing refuse from this household?
How does your household dispose off most of its refuse?
- _____ (01) dumping in your neighborhood
 - _____ (02) burning in your compound
 - _____ (03) burying in your compound
 - _____ (04) indiscriminate disposal (throwing away anyhow?)
 - _____ (05) local collection system
 - _____ (06) organized community collection system

SECTION D: Natural Resources Use Benefit (Energy, wildlife, 22()3rest products)

20. What sources (s) of energy do you use for cooking? Check all that apply
- _____ (01) Firewood
 - _____ (02) Charcoal
 - _____ (03) Biogas Stove
 - _____ (04) Kerosene Stove
 - _____ (05) Electric hot plate or cooker
 - _____ (06) Other, Specify _____
21. What natural resource prts to you use in yourhold?

- _____ (01) building poles
- _____ (02) thatching grass
- _____ (03) game meat
- _____ (04) medicinal plants
- _____ (05) Pottery soil
- _____ (06) grazing grass
- _____ (07) Other, Specify _____

22. How frequently do you use these resources?

Code	Resource use	Daily	Weekly	Monthly	Annually
01	Building poles				
02	Thatching grass				
03	Game meat				
04	Medicinal plants				
05	Pottery soil				

25. What productive activities do you engage in during the wet/rainy season

- _____ (01) Cash crop farming
- _____ (02) Food crop production (maize, paddy, cassava, etc)
- _____ (03) Small business (food-vending,)
- _____ (04) Wage employment (casual labour)
- _____ (05) Vegetable farming
- _____ (06) handcrafts for sale
- _____ (07) Water vending
- _____ (08) Game meat business
- _____ (09) Tourist guide)

26. What are the potential productive activities do you anticipate resulting from the establishment of the new WMA?

- _____ (01) Cash crop farming
- _____ (02) Food crop production (maize, paddy, cassava, etc)
- _____ (03) Small business (food

Income and Expenditures

29. How many members of your household currently earn some income (from a job and/or business and/or part-time work)?
30. Do you receive money in terms of gifts or otherwise from other sources (including relatives or friends living outside the village)?
 _____(00) Yes
 _____(01) No
31. [If yes] how much money (cash) do you receive per year?
32. Does your household receive any other income (agricultural sales, own business, rental, seasonal income sales of property, etc.)?
 Amount per year _____ Tshs don't know (99)

33. How many of the following assets are owned by your household?

	Assets	Number	Estimated value Tshs
01	House		
02	Cart		
03	Hoes		
04	Motorcycle		
05	Boat		
06	Bicycle		
07	Ploughs		
08	Tractor		
09	Sewing machine		
10	Land (acres)		
11	Refrigerator		
12	Generator		
13	Trolley		
14	Kerosene stove		
15	Radio		
16	Water tank		
17	Furniture (tables, chairs, beds)		
18	Improved charcoal stove		
19	Fire arm		
20	Vehicle		

34. Do you have any livestock?
 _____(01) Yes
 _____(00) No

35. Livestock type, number and value

	Animals	Number	Estimated Current Value T (Tshs) (mean value)
1	Cattle		
2	Sheep		
3	Goats		
4	Pigs		
5	Rabbits		
6	Chicken and other poultry		
7	Donkey		

36. Do you have a farm?

_____ (00) Yes
 _____ (01) No

37. If yes, indicate the quantities of the crops harvested

	Crop	Acreage	No. of units harvest
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UNITED REPUBLIC OF TANZANIA
Wildlife Division
Ministry of Natural Resources and Tourism

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Volume 4: Ipole Report

Draft

By

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A. Isinika**

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