

SECTION 1: ANALYSIS OF BASELINE INFORMATION FOR pWMA_s FOR DEVELOPMENT OF MONITORING INDICATORS

IKONA pWMA

Aspect	Key issues	Current status
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Aspect	Key issues	Current status
		serve 17% of the villagers
	Access to health facility	Medical facilities reported to be inadequate. However all village have a dispensary and Nata Mbiso village has a Health Centre with a capacity of 18 beds.
	Human diseases	Most dominant diseases are water/sanitation related and Malaria. Other diseases are either air borne, sex related or originate from worm infestation.
	Education facilities	Each village has a primary school. Deficits in classrooms and desks were reported though not quantified.
	Institutional set up	Ritual sites and Taboos exist as traditional institutions Gender representation in village governments was averaged at 6 out of 25 members, Nata Mbiso village having the highest representation of 8 of the 25 members.
	WMA establishment development	All villages have developed bylaws for WMA but have not prepared land use plans
	Land disputes and conflicts	Land use conflicts are reported in 2 (Robanda and Nyakitono villages) out of the 4 villages. Most conflicts are related to village boundaries, wild animal attacks and crops, and between villagers and the local investors (V.I. P). Conflict resolution mechanism is achieved through traditional institutions (Retongo – Council of Elders) and village governments. The court system is poorly equipped to serve in that capacity (e.g. no manpower)..

BURUNGE pWMA

Aspect	Key issues	Current status
Ecological	Species richness Wildlife population	The Pilot WMA serves as a dispersal area for wildlife from the Tarangire National Park. The Kwakuchinja migratory route serves as buffer zone and northern corridor Linking Tarangire and Manyara NPs.

Land disputes and
conflicts

All villages have developed bylaws for WMA which await approval by the District Authority (delay to be
monitored)

Natural resources related conflicts are reported to be high due to the heterogeneity of the society.

IPOLE PILOT pWMA

	Key Issues	Current status
Ecological	-	

	-Health	-There is only one dispensary situated at Ipole village which serves all the villages
	-Water for domestic use	-Source of water for domestic use in all villages is traditional wells, shallow wells and charco dams. There is pipe system water supply water at Ipole but it is not functioning due to lack of money to purchase fuel.
	-Governance	-Mechanism of collaboration is through regular meetings with stakeholders. -Poor record keeping and management of village government financial resources. - -

TARIME pWMA

ASPECTS	KEY ISSUES	CURRENT STATUS
ECOLOGICAL	Species richness Habitat quality	

		<p>Type of houses Cement blocks 6.9%, burnt 24.1, Mud +Poles 44.8, mud bricks 24.1 Cement and sand 10.3, Earth and clay 89.7%.Roof 41.4,grass 58.6. Average house value 30,000 Opportunities for economic activities include Tourist photograph and cultural Boma No formal credit facilities.</p>
SOCIOLOGICAL	Common human diseases	Common diseases: Malaria, pneumonia, intestinal worms, STIs, ARI and diarrhoea.
	Demography	Kurya constitute 99% of the population in Gibaso The other 1% is made up of the Wagogo, Waha, Wasukuma, Wajaluo Wahehe and Wajita
	Ethnicity	Total population in the two villages is 12681 (Gibaso 8458 and Mrito 4123) There are 641 and 1690 households in Merit and Gibaso respectively
	Social services	Average HH is 6.4 in Merit and 5 in Gibaso
	Migration	In and out migration is very insignificant. 85% were born and raised in the ward while
	Institutional set up	
	Governance	
	Understanding of the WMA Concept	

TWATWATWA pWMA

ASPECTS	KEY ISSUES	CURRENT STATUS
ECOLOGICAL	Species richness	There are 22 animal species and 39 species of bird.
	- Habitat quality	-Vegetation communities dominated by woodland, open grassland and riverine vegetation
	- Source of water for wildlife	- There are two perennial rivers namely Mkata and Wami, one seasonal river (Mgomberenga River), four man-made water dams (Ngoisani, Twatwatwa, Manzi Mmoja and Sangarami)
	- Natural resources utilisation	- Use of forest resources is for firewood, building poles, medicinal plants, thatch grass, honey collection, game meat, fruits and construction of bomas
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	- Wildlife-human interaction	<ul style="list-style-type: none"> - Crop damage is a problem in all villages which is as high as 50% crop loss and major raiders are elephants, yellow boon and bush pig - Frequency of incidences for human deaths from lions, leopard, crocodiles, buffalo, hippo, hyena, elephant and jackal range between 2 to 3 per village per year - Frequencies of livestock attack incidences from wildlife are highest at Hulia, which ranges between 10 and 20 for hyena and leopard. - Rabies is the only zoonotic diseases reported in the area and is said to be transmitted from jackals.
	-Poaching	<ul style="list-style-type: none"> - Both subsistence and commercial poaching are at low level. Wire snares and ropes are used in subsistence poaching. - 257 pieces of snares were collected at Hulia, Mbungulaji and Ndenyembe and 10 kg at Namwinyu village by VGS
Sociological	- Demography	<ul style="list-style-type: none"> - Average size of households is 7 persons - Females head 6% of Households.
	- Occupation	<ul style="list-style-type: none"> - 94% are farmers, casual labourers and 1% bee keepers
	- Other social services	<ul style="list-style-type: none"> - Hulia, Namakungwa, Namwinyu and Daraja Mbili have access to public service transport served 7 times per week during dry seasons - Every village has at least one mosque and 2 shops/kiosks.
	- Education	<ul style="list-style-type: none"> -

	<ul style="list-style-type: none"> - Governance 	<ul style="list-style-type: none"> - All village governments have all the committees and both females and males and young and old comprise these committees. - The number of females in the village government varies from 2 at Raha Leo to 7 Hulia. - Village assembly meetings range from one to three while village government committee meetings vary from 2 to 8. - 33%, 17%, 33% and 17% of total households respondents Village Governments' Performance is very good, good, moderate and not good respectively. - 33% 17%, 17% and 33% responded that Finance Management is very good, good, moderate and not good respectively. - 0%, 67%, 17%, and 17% of all households rated the natural resources committee as very good, good, moderate and not good respectively.
	<ul style="list-style-type: none"> - Awareness of WMA 	

	-Credit /Bank facilities	- No bank facilities, the nearest is located at Tunduru town, which is 60 km away over the poor road system. - Credit is in form of informal sources such as friends and business people.
	Transport and communication	- 80% of the villages complain that road and transport infrastructure is poor.
	-Access to markets	- More than 80% indicated that the markets are available but not readily accessible.

	Natural resources utilisation	Firewood, thatch grass, poles, ropes, medicinal plants, timber, honey, grass for mats and baskets, mushrooms, wild vegetables and fruits, fish, water, pastures and charcoal
Economical	- Water sources for wildlife -	-Wami River is a permanent and Mbiki River is seasonal.

	Credit facilities	-One Micro finance institution known as Foundation for International Community Assistance exists (FINCA).
	Awareness and knowledge of the WMA	- Generally the villagers have an idea about WMA

ENDUIMET PILOT WMA

	Key Issues	Current status
Ecological	Wildlife species richness	-31 large mammal species reported and 20 bird species sighted.
	Wildlife populations	-Numbers are not available but 11 wildlife species are reported to be abundant in particular during wet seasons
	Wildlife migration patterns	- About 11 animal species seasonally migrate within and across the 8 villages forming the PWMA and most of the migratory species are still intact.
	Habitat types	- Five habitat types identified are: grassland, wooded grassland, woodland, bushed grassland and montane forest. - Data on size of each habitat type not available
	Water sources for wildlife	- 1 permanent dam, two water troughs and 6 seasonal rivers.
	Utilisation of other natural resources	- Fire wood and poles are collected after obtaining a permit from the village government - Charcoal making in two villages; Tingatinga and Ngereiyan but controlled by Village Government - Traditional bee keeping is practised in two villages with about 80 beehives. Training on modern bee keeping is going on at Kitenden and Lerangwa - Fish farming is practised in dams at Sinya and Kitenden villages - Shrubs and trees are used as medicine for both humans and livestock
	Wildlife-humans interactions	-Between 50% and 60% of expected maize, beans and wheat harvests are da53.76 33ractingising osTQ

	<p>-Conflicts and conflict management</p>	<ul style="list-style-type: none"> - Existing conflicts in the area include: Villagers versus investors on natural resources use in Sinya village, farm boundaries in Olmolog and village boundary in the wildlife corridor between Kitenden and Irkaswa villages. Others are conflict over hunting permit-issuing system in Tingatinga and land designation conflict between Ngereiyan village government and villagers. - Conflict resolution mechanism is the use of traditional leaders/elders village government, ward tribunals and the court system. - Natural resources related the natural resources committee and village game scouts deal with conflicts by using draft by laws.
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IDODI-PAWAGA PILOT WMA

	Key Issues	Current status
Ecological	Wildlife species richness	- Wildlife species found include; buffalo, impala, zebra giraffe, elephant, Kudu, hartebeest, sable antelope, warthog, Waterbuck, hippopotamus, monkey wild pig, lion, wild dog, baboon, jackal, dikdik, crocodile, ostrich, hyena, leopard and cheetah.
	Other natural resources utilisation	-Access to natural resources for domestic use is without permit but utilisation for business, permit is issued by the Village Council and for hunting and logging licenses are obtained from the District Council - Fire wood is used by 78% of total households, charcoal by 8%, building poles, timber and thatch grass by 8%. Other resources utilised include wild vegetables, ropes, medicine, honey and fruits.
	Humans-wildlife interactions	- Crop raiding is a problem in all villages. About 25% of the crops cultivated are destroyed.
	Hunting quota utilisation	- There is no tourist hunting and data on domestic hunting are not available. However, MBOMIPA has developed a system for tracking and monitoring hunting in the area.
	Poaching	-Each village has 2 village game scouts for protecting the PWMA but protection has been ineffective due to poor working facilities such as communication, transport, uniform and ration
Economical	-Main sources of income	-Agriculture, livestock keeping and wildlife-related income. 90% of the villagers are crop cultivators or mixed farmers. - Rainfed and irrigation agriculture is practised and the area under irrigation is 275 ha in Idodi and 1250 ha in Pawaga respectively. - Rice and vegetables are the food security and source of income and shifting cultivation is still practised. - 14 out of 19 villages are experienced land scarcity, thus prices for land lease ranges between TZS 15,000 and TZS 30,000 per acre for one season - Average income from agriculture is TZS 168795 per annum - Because of inadequate land for grazing, livestock population is rated low in 5 villages (less than 100 cows), moderate in other 5 villages (101-200 cows), and high in the remaining 9 villages (more than 200 cows).
	-Other economic activities	-Subsistence fishing, bee keeping, carpentry, charcoal burning and petty business. - Remittance is another source of income and 24.7% of the households depend on it as one source of income. Which is estimated to be TZS 41,956 on average
	-Village income	-Average income for Village Governments is TZS 1,634,711 per year per village. 74% of the village's revenue comes from MBOMIPA.

	Land productivity	-Farms range between 10 and 20 acres per household and crop yield shows a declining trend in 11 village and an increasing trend in 8 villages. - Productivity decrease may have negative influence on conservation
	-Access to markets	-Markets is through private traders (middlemen) and open markets.
	Households expenditure	-Priority on expenditure at household level is on buying food, health services, and education and farming costs. However a large portion is consumed on health and education.
	Transport and communication	-Transport is very poor more so during the wet season. Each Division depends on one bus only.
	Economic potential	-Opportunities for other sources of income are fish farming, photographic tourism, tourist hunting, resident hunting and trade on live animals.
Sociological	Ethnic groups	-

UKUTU PILOT WMA

	Key Issues	Current status
Ecological	Extent and status	-PWMA has an area of 750 Sq. km and is located in low-

	-Other sources of income	<ul style="list-style-type: none"> - Average dependence on natural resource products is reported to range between 16.5% and 62% (fire wood (62%), charcoal (27%), building pole (21%), thatching grass (19%) and medicinal plants (16.5%). Others include fruits and game meat. - Illegal harvesting of natural resource products particularly game meat has been reported though not quantified. - Income from wildlife hunting per village for the past 5 years range from TZS 200,000 to TZS 723,000 dependent on quota utilisation. - Bee keeping is reported to be uncoordinated, with low productivity and low prices for be products - Fishing is also not co-ordinated but has a potential for income generation and boosting nutrition
	-Expenditure	<ul style="list-style-type: none"> -About half of the village income is reported to be used on management and protection of future WMA - Estimates of money spent by villages on management and protection range between none to 300,000 per village. - Estimates of village funds spent on development activities range from TZS 3,750 to TZS 167,000 - In terms of percentages, the proportion of village income spent on protection and management is estimated to be 50% on average while about 15% was spent on development activities

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LOLIONDO pWMA

	Key Issues	Current status
Ecological	Extent and status	- Six villallallalla vi10(.7998 11.52 ref53.76 475.06 0.48 0.44.xh8(o2.9123.15(m)19 0.429.th)7(e T/p2.

NGARAMBE-

Sociological	Economic potential	- Tourist hunting and photographic safaris, handcraft, bee keeping and employment
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UYUMBU pWMA

Ecological	Key Issues	Current status
	Wildlife species richness	– Mammal species: elephants, lions, leopards, Kudu giraffe, buffalo, warthog, wild pig, dikdik, monkeys, baboons, hare/rabbits and hyena.
	Wildlife population	-
	Wildlife migration	– Uyumbu is a dry season refuge area for wildlife from Ugalla.
	Habitat type	- Large forests
	Habitat destruction	-

	Access to market	
	Credit facilities	
	Economic potential	
Sociological	Human population	
	Ethnic groups	
	Migration patterns	
	Institutional set up	
	Social service	Poorly serviced. Two villages are serviced by two seasonal tracks. Only Izimbili villagers have access to bus service at Usoke 6 Km away. Main transport is bicycle (70%-85%).
	Water sources for domestic use	

SONGEA pWMA

Aspect Key issues

Aspect	Key issues	Current status
	Habitat quality	Four major habitat types identified (f96(ab)- re(ab)-50.48 riy

Aspect	Key issues	Current status
Economic	Economic activities	Only three economic activities practised including agriculture (75%), small and petty business (23%) and wage employment (2%).
	Household income	About 13% of the households earn below TZS 60,000 annually and 32% earn above TZS 300,000 (reported).
	Dependence on natural resources	32% of households depend on game meat and 27% depend on grass for thatching. The dependence on building poles, medicinal plants and grazing area was rated at about 13%.
Social	Population.	Total population per village range between 630 in Kilimasera village to 6936 in Kitanda village.

LIWALE pWMA

ASPECTS	KEY ISSUES	CURRENT STATUS
Ecological	<p>Species richness Wildlife populations</p> <p>Water availability Habitat shrinkage and deterioration Village quota utilisation Bee keeping Problem animals Poaching both commercial and subsistence.</p>	<p>44 species of large mammals <i>Encounter of rhino (Kimamb iii Village)</i> Population size of species is not known. Waterbuck population is declining in numbers. Migratory routes exist. Water sources are not permanent and not adequate. Log1 0 0 1 8q270.29 131.55 431.57 206.92 reW*nBT/F8 9.96 *nBT1 0 0 1 311.45 255.53 Tm0 g[I</p>

		<p>65% agricultural activities 15% small businesses 12% hand crafts Income rated at minimum of TAS 30,000/= and 200,000/= maximum. Only 1% of 87 of responded HH have access to formal credits. Maize 2 tons per Ha Rice 1.7 per Ha Cashnut 2.4 per Ha 9% use burned bricks for building 16.9% use corrugated iron sheets. 20% depend on natural forest for medicine, poles and game meat.</p>
Social	<p>Access to water Access to markets Road transport and accessibility Education Emigration Governance and gender</p>	<p>60% HH have access to clean water. 1% has private water collection. 35% water points are not functioning. Only one designated Limited trade in natural resources products. open market place.</p> <p>No secondary school. There is a deficit of 15% of the required (80) classroom. Deficit of 36% desks in schools out of the required 558. 1 out of 9 village has public transport. Road accessibility is seasonal (during the dry season).</p> <p>Emigration rate at 30% within the village</p> <p>.</p> <p>Low representation of women in village committees (6 out of 25). 2 villages out of 9 have no VNRCs.</p>

		75% of scheduled village meetings are carried out. Financial matters are not reported at Village Assembly Meetings.
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MAKAMI pWMA

ASPECTS	KEY ISSUES	CURRENT STATUS
Ecological	-Species richness	-34 mammal species and 27 bird species
	- Wildlife movement	- Dry season dispersal area for wildlife from Tarangire NP. -15 mammal species migrate seasonally (local). - A migratory route exists between Tarangire NP. And Makami pWMA.
	- Habitat type and quality - Water sources for wildlife	-Habitat composed of grassland, woodland and forest/woodland – -Vegetation is relatively intact

- Access to markets
- Have weekly open markets at Ndedo

B. ANALYSIS OF GUIDELINE REQUIREMENTS FOR DEVELOPMENT OF MONITORING INDICATORS

Aspect	Key issues	Requirements by Regulations
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Aspect

Key issues

Requirements by Regulations

Aspect	Key issues	Requirements by Regulations
	Surrender	Subject to the approval of the Village Assembly To the DW De-gazettement of WMA by the Minister within 12 months
	Cessation	Change of use of village land use plan AA ceases to exist AA fails to comply with the provisions of the Act, these Regulations or any other law. De-gazettement of WMA by the Minister within 12 months
De-gazettement of WMA	Application for de-gazettement	AA may apply to the DW Accompany, original certificate of AA, letter of approval from District Council, minutes of the Village Assembly endorsing the decision Application forwarded to the Minister within 14 working days. Minister declared de-gazettement within 6 months after receipt of the recommendations of DW Minister to gazette de-gazettement within 30 days after declaration
Resources utilization	Animal quota allocation	To be issued by the DW To be allocated according to laws. To be established according to the existing scientific information available.
	Utilization procedure	To follow existing laws and laid down procedures.
Investment	Terms of investment.	Duration of contract is three years renewable and excludes allocation of hunting blocks. Investment to respect Village Land Act No. 5 of 1999 EIA mandatory Conform to GMP or RMZP. AA may seek advice from the District Natural Resources Advisory Body when negotiating contracts. The Director may consult responsible authorities for investment Copies of the investment agreement availed to the District Council and the DW

Joint venture

Aspect	Key issues	Requirements by Regulations
	Management of joint venture	<p>Formation of joint venture management committee</p> <p>Joint venture committee to be comprised of 2 representatives from AA, enterprise or firm, District Natural Resources Advisory Body,</p> <p>The committee shall make rules and procedures of its meetings.</p>
	Concession	<p>Investments and business to be operated according to agreement terms.</p> <p>AA may change concession fees subject to approval of the District Council</p> <p>Withdrawal and revocation powers of any investment agreement is vested with DW</p>
Dispute settlement and conflict management	Conflict resolution	<p>Whenever conflict arises shall be referred to arbitration committee, tribunal or arbitrator as provided by the agreement.</p> <p>If not provided by the agreement apply the arbitration ordinance</p> <p>User right shall be vested to the remaining members of the AA. During the arbitration period</p> <p>The award of the arbitration process should determine the fate of the user right</p>
Miscellaneous provisions	Cooperation with the Village Game Scout	VEO, WEO and Authorized Officers to facilitate and cooperate with VGS.
	Benefit sharing	<p>Shall comply with circulars issued by the Government and shall adhere to mechanisms of equitable distribution of costs and benefits</p> <p>Distribution of the annual gross revenue of the AA to ensure that not less than 15% is re-</p>