Working paper on the implementation of Rufford-Mpimbwe to be used on the ground for project improvement

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I. PARK ADVENTURES

A. Achievements To Date

The trips to Katavi National Park for school children were a hugely enjoyed by students, teachers and park officials. The goal was to give youth a chance to appreciate wildlife and experience tourism, in order to encourage participation in wildlife conservation. We took Standard VII pupils from the primary schools, Form III from Mamba Secondary School and Form II from Usevya Secondary School.

The following table details the number of trips and total students and teachers from Mpimbwe who participated.

DAY	DATE	WARD	SCHOOL	GRADE LEVEL	TOTAL STUDENTS	TOTAL LEADERS and TEACHERS
1	20 Julai	Kibaoni	Kakuni, Ilalangulo	St. VII	49	7
2	21 Julai	Kibaoni	Ilalangulo, Mirumba	St. VII	43	6
3	22 Julai	Usevya	Usevya	St. VII	41	7
4	23 Julai	Usevya	Msadya	St. VII	51	7
5	24 Julai	Usevya	Sekondari	F.II	68	7
6	25 Julai	Mbede	Mbede, Minyonso, Mwamapuli	St. VII	59	9
7	26 Julai	Mbede	Mkwajuni, Chamalendi	St. VII	45	8
8	12 Novemba	Mamba	S/M, Sekondari	St. VII, VI, F. III	94	3
9	13 Novemba	Mamba	Sekondari, Maji Moto, Makuyugu	F. III, St. VII	104	6
10	14 Novemba	Mamba	Rungwa, Kilida	St. VII	52	5
JUMLA		**4 WARDS**	**17 SCHOOLS**	**-**	**606**	**65**

B. Comments and Recommendations

Vehicles

- *Requesting vehicles*: Vehicle use was provided free of charge by TANAPA and the Mpanda Municipality (Halmashauri). Write a formal letter to the Chief Park Warden (TANAPA) and/or to the District Executive Director (Halmashauri) introducing the activity, identifying the Trip Leader (*Mkuu wa Msafara*), and stating the requested start and end dates. You will have to pay for per diems (driver and mechanic) and for fuel.
- *Capacity*: An EVECO holds about 50 people. An ISUZU holds about 70 people. Filling the vehicle beyond these recommendations is completely possible but considering that passengers will be traveling for the entire day it is best to keep extra space. For example, one day we traveled with 100 students in an Isuzu and it was dangerous because the metal frame broke. Also students in the middle of the vehicle see fewer wild animals. In the cab about four passengers can fit comfortably.

Duties of the *Mkuu wa Msafara*

- The *Mkuu wa Msafara* is responsible for directing the driver and for passenger safety. This person will answer to any legal issues that arise from a trip. Approximate the mileage each day so that the driver can fill the tank appropriately. Inform the TANAPA head quarters in Sitalike in advance of trip dates. Be aware that it is school policy that students must be supervised at all times.

Preparation with schools

- The trip planner must visit each participating school shortly prior to trips in order to inform teachers of the trip procedures and to give students a pre-trip survey of environmental attitudes and leave copies of the post-trip survey to be filled the day after returning from the Park.
- *Information for teachers:* The information session with teachers will make chaperoning teachers aware of their responsibilities during the trip. The day is not a vacation for teachers. Following an example learned from the Community Liaison Officer of the Wildlife Conservation Society in Ruaha National Park, one teacher must accompany and be responsible for every 10 students. Their responsibilities include: (1) keeping students in the vehicle during travel (and at all times in Park other than at the Ranger Posts), (2) ensuring all students return to the vehicle in a timely fashion during stops, (3) monitoring the health and safety of students, and (4) facilitating student questions during the park warden talk. At the information session, identify the chaperoning teachers and go over their responsibilities to make sure they understand and accept them.
- *Student questions:* Ask the teachers to have the students prepare questions to ask the park wardens.
- *Survey:* The survey should take no longer than half an hour and is a shortened version of the pilot survey we did in 2007. It aims to evaluate the students' environmental attitudes, knowledge and practices before and after going into the park. The same students who fill out the pre-survey must also fill out the post-survey. The trip planner should collect the pre-surveys on the day of the trip. The head teacher should send the completed post-survey to the MIMAMPI head office by bus after the trip.

Preparation with TANAPA

- *Overnight visits:* Ask the TANAPA Community Conservation Services Warden for assistance in planning a place to sleep for students from Mbede and Mamba Wards. These distant schools will benefit greatly from sleeping near the park. If the vehicle picks up students in Mamba in the morning and drops them off in the evening, the day is very long and dangerously tiring. Some students cannot get to school earlier than 7:00am because they live far away. This means the vehicle leaves Mamba at 7:30 stopping along the way to pick up students at other schools, and eventually reaching Ikuu at 11:00. After a game drive and talk with park wardens the vehicle returns around 4:00pm, stopping for a fuel refill, dropping off students, and reaching Mamba again around 10:00pm. We recommend experimenting with sleeping overnight in Sitalike at a local school or church.
- *Fuel:* Buy diesel from the TANAPA head quarters in Sitalike and request for a TANAPA vehicle to deliver it in borrowed 200-liter drums.
- *Warden talks to students:* Meet with the wardens who will talk to students and answer their questions. Have them mention the following in their talks: (1) special aspects of Katavi National Park, (2) benefits of the National Parks, (3) threats to the National Parks, and (4) TANAPA contributions to communities in Mpimbwe. These topics are also mentioned on the survey. It is important they are mentioned during the talks, so that we can compare the impact of these talks on student environmental attitudes and knowledge. If the warden forgets to mention them, the trip planner should prompt him.

Days in the Park

- *Fuel:* Keep the fuel and engine oil in the MIMAMPI office and fill up in the evenings prior to the following day's trip.
- *Photographs:* Designate a photographer from among the chaperoning teachers. Use one role of film per day to ease record-keeping. Take photographs of (1) students in the vehicle, (2) students listening to the park wardens (3) students visiting tourist camps, (4) students watching wild animals. Limit pictures of wild animals alone because they have little value for the donor (Rufford).
- *Warden talk*: Meet the wardens at Ikuu Ranger Post.
- *Food and water*: Eat at Ikuu Ranger Post, where jerry cans can be re-filled at the deep well. We carried biscuits and soda this year, which was not enough for the long day. Try cooking rice and beans in advance and carrying it into the Park. For overnight trips, put in an order at a *hoteli* in Sitalike.
- *Overnight visits*: This possibility must be carefully discussed with the head teachers, Ward Executive Officers and TANAPA CCS Warden as to make sure all legal and safety issues are addressed. See above under "Preparation with TANAPA."

Trip Follow-up Visits

- Shortly following the trips the trip planner should visit schools in order to discuss with students their experiences and perspectives on wildlife protection and tourism. At this time, the trip planner can deliver photographs and collect post-surveys.

C. Budget Changes

The following budget outlines proposed spending for another, second round of park visits and pre/post surveys.

No.	Park adventures – 2008	TZS	GBP
	Briefing for teachers and distribution of surveys (six days travel throughout Mpimbwe to visit schools) • Food and accommodation for MIMAMPI General Secretary (50,000) • Motorcycle hire (30,000)	80,000	
	Preparation with TANAPA wardens • Food and accommodation (2 days) for General Secretary at TANAPA headquarters (20,000) • Bus fare (10,000)	30,000	
	Follow-up visits to schools after park trips (six days travel throughout Mpimbwe to visit schools) • Food and accommodation for MIMAMPI General Secretary (50,000) • Motorcycle hire (30,000)	80,000	
	Driver per diem (20,000 per visit for 15 visits)	300,000	
	Mechanic per diem (10,000 per visit for 15 visits)	150,000	
	Diesel fuel (1000 liters at 1800 per liter)	1,800,000	
	Diesel engine oil (5 5-liter containers @ 15,000 each)	75,000	
	Lunch for 1000 people (1000 per plate)	1,000,000	
	Jerry cans for drinking water (5 at 5,000 each)	25,000	
	Park fees waved by an agreement with TANAPA	0	
	Vehicles use free of charge through agreements with TANAPA and Department of Education	0	
	Before and after survey of environmental attitudes of student participants, copies and data entry	200,000	
	Overnight costs for students from distant schools (accommodation at nearby school) • Breakfast for 500 people (400 per person) • Lunch for 500 people (700 per person) • Contribution to host school 50,000 • Emergency funds	600,000	
	Travel to Mpanda or Sitalike to request vehicle	60,000	
	Communication – Celtel vouchers for the General Secretary to coordinate trips (a voucher of 1000 lasts 3 minutes)	50,000	
	First Aid kit	50,000	
	Film and Photo development (15,000 per trip)	225,000	
		4,725,000	

II. CHICKEN KEEPING

A. Achievements to Date

- We overshot the goal of 10 school-based poultry programmes and achieved 13 programmes.
- Thirteen chicken coops have been built, complete with wire mesh windows and lockable doors.
- Thirteen Malawian cockerels, a breed known for its high production capacity, have been taken to schools in addition to 10 hens per school.
- A breeding plan has been developed for schools with the help of the District poultry specialist.
- Schools have been provided a daily log book to record production, disease prevention and nutrition.

B. Comments and Recommendations

Choice of breed

- *Drawback to Malawian breed:* Although the high-producing Malawian breed was highly recommended by the District Livestock office, I find the breed to be high maintenance, in terms of food and medical needs, and un-aggressive, making it vulnerable to attack from more aggressive local breed.
- *Local breeds:* I recommend that if additional schools plan chicken breeding programmes, they should start with local breeds. Local breeds are accustomed to the Mpimbwe climate and disease cycles, and can have a high production rate if given proper nutrition.

Coop Construction

- *Parameters:* In our original diagram the coop wall below the window is too high and should only be one meter high in order to allow air flow. The ceiling can also be lowered by one meter.
- *Security:* In order to prevent predatory rodents and feral cats from entering the coop, the roofing (thatching) must be tightly enough woven and the foundation must be deep enough to prevent rodents from digging in under the floor. If extra funds become available, iron rebar should be provided to prevent human intrusion.
- *Laying boxes:* Schools must devise their own laying boxes and figure out a way to prevent chickens from eating un-hatched eggs.
- *Fencing:* In the dry season beginning around June, students must build a fence around the coop to allow chickens get exercise and to eat and drink outside. Currently, chickens are living and sleeping in the coop, which is acceptable only because the flock is very small. The fence must be high enough to prevent the flock from escaping and to prevent foreign chickens from entering.

Nutrition

- The current food supply will last approximately until the end of March. After that point, *pumba* will begin to be available again cheaply, if not freely in the villages near schools.
- Soft rice *pumba* should be available in Majimoto, Usevya, Mamba and Igalukilo (Kasansa), which is also an ingredient in the food mix.

- *Fumbi ya dagaa* (dried fish scraps) is available in the big market in Mpanda town and in Majimoto.
- An interim fund will cover emergency flock needs in case food runs out before *pumba* is readily available. See the proposed budget below.

Evaluation

- Bt the time I left, schools that had made the biggest effort were Rungwa (Kasansa/Igalukilo), Kilida, Kanindi, Mamba, and Ilalangulu (Manga).
- Log books have been provided to teachers for the students to record daily production, disease prevention and nutrition. One a monthly basis, teachers are to send the log books to the MIMAMPI General Secretary.
- The MIMAMPI's General Secretary will enter the monthly log sheets into an Excel spreadsheet and send the data to Caroline Chumo, who will use the data to (1) evaluate which schools continue to strive to succeed, (2) evaluate in which areas schools need support, and (3) to send progress reports to the donor agency and to the District offices.
- An interim fund will allow livestock extension officers to visit school coops once month. Due to the sustainable nature of the chicken project, it is not anticipated that regular funds will be necessary for running costs. However, there is an 18 month period before "pure" offspring will be hatched and sellable. The following proposed budget will cover this interim period beginning in June 2008.

C. Budget Changes

No.	School-based poultry keeping – FOLLOW UP 2008	TZS	GBP
1	Copies of monthly reports (13 schools x 24 months x TZS 200)	62,400	
2	Transportation for livestock officers for one visit per month to each school for one year (petrol 54 liters @ 2000 per liter)	108,000	
3	Bacterial and viral vaccines (9 months for 143 chickens)	120,000	
4	Food for 3 months for 13 schools	800,000	
	Subtotal	*1,090,400*	

III. TREE PLANTING

A. Achievements To Date

Seedling Production

- A total of 11,000 native tree seedlings were produced in three nurseries. This achievement overshot our goal of 4,000 seedlings.
- Types of seedlings produced include *mkola*, *mkese*, *mninga*, *msofu*, *mkwaju* and *msawala*.
- Approximately 30 percent of seedlings perished before planting.
- See the attached document which details tree distribution to the schools.

Planting

- Each of the 27 schools prepared holes for and planted approximately 300 seedlings.

School Participation

- Two of the nurseries were based at schools, unlike our proposal to purchase ready seedlings from the nursery in Mpanda town. Therefore, students actively participated and learned tree nursery production techniques.

Rehabilitation

- This year we planted native seedlings in the area of the hot springs in Majimoto.

B. Comments and Recommendations

Equipment

- In addition to the hoes, rakes, shovels, knives and wheel barrows, the project also needed soil sifters, insecticide pumps (see budget below).
- The equipment has been returned to the MIMAMPI office with the exception of certain equipment to be used under agreement with Mr. Kamina in Mpanda and with Mamba Primary School.
- If more funds come through for nursery development these equipment will be distributed to the appropriate locations. The budget under Part C details a continuation and extension of the school nurseries, whereby additional equipment will be bought in order to expand production to other schools.
- Planting tubes are probably the most valuable of equipment and most expensive. They are available in Mpanda, and considering the costs of shipment it is probably cheapest and most convenient to buy in Mpanda. After use, it is possible to wash the tubes and reuse.

Medicine

- Two types of pesticide are available and necessary. The first is Furadan which is a grainy anti-termite powder to be mixed into the soil used for seedlings and into the holes dug at schools for planting seedlings. Some areas of Mpimbwe have terrible termite problems and without Furadan, the seedlings are quickly destroyed.
- The second pesticide is Karot (spelling?) which is liquid concentrate used to kill and prevent leaf damage by aphid-like insects. The chemical is diluted in water and administered to foliage via spray pump.
- Both insecticides are highly toxic and dangerous to small birds!

Water Tank Construction

- Some schools have access to river water at a distance. In order to ease daily watering activities in a nursery it helps to have an open tank nearby to keep stores of water. This way, students spend one day filling the tank, which can serve the nursery for up to a week.

Nursery Location

- It is my recommendation that schools participating in nursery production be located along the road, not in the interior, for ease in access.
- Nurseries must all be located in Mpimbwe, not in Mpanda, because transportation is expensive and undependable and labor is expensive.

- I recommend the following 10 locations for school based nurseries. Each nursery should aim to produce 5000 healthy seedlings

No.	School	Ward	Rationale
1	Kasansa	Mamba	Year-round water source at the pipe which feeds off a plentiful mountain stream; Teachers showed commitment and determination in building chicken hut
2	Mamba	Mamba	They were successful this year.
3	Majimoto	Mamba	They are close to the hot springs and a central location between Mbede and Mamba.
4	Mbede	Mbede	They are a central location between Usevya and Majimoto and are very keen to grow trees.
5	Mwamapuli	Mbede	The teachers and students have very enthusiastic and hardworking in regards to other interactions I have had with them. Also the school is last on the road and is therefore closer to Minyonso, etc.
6	Chamalendi	Mbede	Same as above; close to Ukingwaminzi
7	Usevya	Usevya	They are along the road and can supply trees to Usevya Secondary school
8	Ikuba	Usevya	They are along the road, and have relatively close access to the river
9	Kibaoni	Kibaoni	They were very successful this year and have a nearby water source.
10	Mirumba	Kibaoni	They have a nearby water source and can use trees to rehabilitate the Mwamwelu hot springs

Transportation

- *Equipment:* Equipment can be transported to schools by bus.
- *Soil*: Soil components (manure, sand and compost) may be available in the school area at a distance, making it impossible for students to transport efficiently with buckets and wheelbarrows. Therefore, a fund should be available to rent Sukuma trailers.
- *Seedlings*: Once seedlings are ready for distribution in November, a lorry must be requested from TANAPA or the Mpanda municipality (Halmashauri) (see Park Adventures – Requesting vehicles). Two thousand seedlings fit in the "Tipper" EVECO we used this year, which is small compared to ISUZU and FUSO.
- *Project Manager and nursery consultant:* Site visits to school nurseries should be done by *pikipiki* for time efficiency.

Seed collection schedule

- Native tree seeds are available in Mpimbwe and north of Katavi National Park depending on the time of year. Adhere closely to the following collection schedule and to the advice of wood cutters in order to know the best times to send out seed collection teams. Mr. Kamina has useful connections to seed collectors in the villages near Mpanda, who know where to find *mkola*.

- *Student labor:* Students may be useful in seed collection in select areas. It may be difficult to use students to find seeds because of the distance of some tree types from village centers and increasing lack of willingness among teachers to use student labor because it takes away from their classroom time (understandable). However, some schools are located in the woodland and may make excellent seed sources. Luchima, Makuyugu, Rungwa, Iziwasungu, and Ukingwaminzi Primary schools are all located along the forest fringes. Make contact with the head teachers early in order to plan collection.
- The following chart details seed availability times and locations:

Month	**Tree 1 and Location**	**Tree 2 and Location**	**Tree 3 and Location**
November	Mwembe – Magambo		
March	Mstaferia –Ilalangulu		
May	Mpapai – Kibaoni		
June	Mkola – Katete, Kapapa	Msawala – Kibaoni/Lalanayo	Mbuyu – Majimoto, Mamba
July	Mkwaju – Msadya		
August	Mninga – Katete	Mkese – scattered, ask residents	Msofu – Mtose

Nursery Security

- *Threats:* Some of the threats to nursery security include livestock, especially goats, human delinquents, wind and sun.
- *Site location:* Nurseries should be located on school grounds so that school guards will be able to protect the nursery during non-school hours. It should be in the shade under tall trees, which help reduce the wind.
- *Fence:* A fence of grass and thorns should be built in an area of about 10 by 10 meters.

Native Habitat Rehabilitation

- In the original proposal we had planned to use the seedlings to replant trees in the buffer zone around Katavi National Park. Once the time came to implement the activity, we realized that (1) supervision would be beyond the project budget and that (2) the general public is little aware of land use zoning and newly planted trees in the village forest would be in danger of trampling by illegally entered livestock during the dry season. Therefore, we decided to focus our efforts on piloting school based nursery production. However, at the request of the village government in Majimoto, we planted trees around the hot springs, which was the only source of water (drinking and bathing) for the entire village of about 5000 people. Over the years the hot springs environment has deteriorated due to illegal tree cutting and livestock which used to drink directly at the hot springs source and the water flow reduced significantly. Recently officials enacted protective bylaws and are looking for seedlings whose roots will eventually serve to protect the underground water source.

- I propose continuing support of rehabilitation at the Majimoto hot springs by facilitating cooperation between Majimoto Primary School, the village government and the District Forestry office, which as long been interested in protecting the hot springs, but has lacked funds to do so.
- Tree types should be carefully selected with the help of the nursery consultant to ensure compatibility with the hot springs environment.

Training Sessions

- The nursery consultant will make three rounds of the schools to train teachers and students on sowing, hole-digging and planting.
- *Sowing*: Only the 10 nursery schools will participate. They will set up the nursery and begin sowing seeds.
- *Hole-digging*: All 27 schools will participate in learning about soil preparation, termite prevention and water control.
- *Planting*: All 27 schools will participate in preparing protective mini-fences for the planted seedlings to keep out goats, and in transplanting the seedlings from the tubes into the ground.

Evaluation

- Periodic evaluations after planting should occur to see the seedling survival rate and to order replacements from the source school nursery, to judge the closeness of attention to the trees by students and teachers, to evaluate termite damage and whether rainfall sufficiently waters the trees. As of end February 2008 the first evaluation has been started by Mzee Kamina. The next one is due in June.

C. Budget Changes

This is a proposed budget for continuing school tree nurseries and expanding to a total of 10 schools. (Equipment in 2007 was purchased for five nurseries, although only three were established. Therefore, equipment is needed for five more nurseries.)

No.	School-based tree nurseries – 2008 (Item prices in TZS)	TZS	GBP
	Equipment • Soil sifters (10 @ 10,000 each = 100,000) • Rakes (5 @ 6000 each = 30,000) • Hoes (10 @ 4000 each = 40,000) • Shovels (10 @ 4000 each = 40,000) • Knives (20 @ 1500 each = 30,000) • Insecticide pumps (5 @ 50,000 each = 250,000) • Wheel barrows (5 @ 50,000 each = 250,000) • Watering cans (10 @ 15,000 each = 150,000)	890,000	
	Planting tubes, sold by the roll (3 rolls per school; 30 @ 20,000 per roll)	600,000	
	Insecticide • Furadan – anti-termite soil treatment (10 bottles per school; 100 @ 2000 ea) • Karot – anti-aphid leaf treatment (3 bottles per school; 30 @ 5000 ea)	350,000	
	Transportation for equipment to schools by bus	50,000	
	Transportation locally for sand, compost and manure (30,000 per school)	300,000	
	Tank construction to store water locally for 5 schools, other schools have tanks	200,000	

	(40,000 per school)		

	Seed collection (Native trees)
	• 10 team days; 5 people per team; 3000 per person per day = 150,000
	• Diesel 120 liters to transport seeds to MIMAMPI office (1800 per liter)
	• Seed purchase from independent collectors (prices vary by seed type)
	  ○ Mkola – 10,000 per small bucket (sado); 10 sados needed
	  ○ Msofu – 7,500 per big bucket (debe); 5 debes needed
	  ○ Mninga – 30,000 per sado; 2 sados needed
	  ○ Msawala – 15,000 per sado; 5 sados needed
	  ○ Reserve Fund for acquisition of unexpected or alternative seeds (100,000)
		738,500	

	Transportation of seedlings from nursery schools to other schools • Diesel for lorry contributed by TANAPA or Department of Education; 4 days to distribute trees from 10 schools to remaining 20 schools and rehabilitation site (50 liters per day, 1800 per liter)	90,000	
	Training sessions – consisting of three 10-day tours for nursery consultant (Sowing – August, Hole digging – October, Seedling planting – November) • Food and accommodation (6,000 per day = 60,000) • Per diem (5,000 per day = 50,000) • Transportation, motorcycle (15 liters petrol @ 2000 per liter = 30,000)	420,000	
	Follow-up assessments at schools – consisting of two 10-day tours for nursery consultant (February and June 2009) • Food and accommodation (6,000 per day = 60,000) • Per diem (5,000 per day = 50,000) • Transportation, motorcycle (15 liters petrol @ 2000 per liter = 30,000)	280,000	
	Replanting in natural environment – one pilot area • Consultations with village government, nursery consultant and custodial school – transportation and accommodation (30,000) • Fencing planting area to prevent livestock (30,000) • Reserve fund for pilot rehabilitation project (100,000)	160,000	
	Subtotal	*4,078,500*	

SURVEY FOR YOUTH ON NATURAL RESOURCE PROTECTION AND ENVIRONMENT NEAR KATAVI NATIONAL PARK

TANZANIA (MPIMBWE DIVISION, MPANDA DISTRICT)

ENGLISH VERSION

AUGUST 2007

Preliminary Questions

i. Survey number	ii. Ward name
iii. Date	iv. Village name
v. Name of survey administrator	vii. School name
vi. Division name	

Main Survey Questions

1. Gender

2. Age

3. Standard level in school

4. Village name (redundant)

5. Language spoken at home

6. Mother's tribe

7. Father's tribe

8. Parent's occupation (tick all that apply)

Fishing	Charcoal burner
Shop keeper	Public servant
Herder	Cultivator (Farmer)
Employee of tourism	Small business (in general)
Company	Carpenter
Seamtress/Tailor	Other handiwork
Beekeeper	TANAPA employee (Tanzania National

	Parks Service)
Woodcutter	Other work

9. Parents education level (mother and father)

10. Students activities in local forest (Indicate whether done daily, monthly, yearly, or not at all)

Fetching water	Hunting wild animals
Cutting firewood	Herding cattle
Cutting grass for mats and thatch	Fishing
Beekeeping	Harvesting medicinal plants
Timber felling	Gathering edible wild greens
Wood cutting for building poles	Digging clay for pottery
Making bricks	Planting trees on the farm
Making charcoal	Planting trees at home

11. Have you ever passed through Katavi National Park?

If yes, how many times?	If yes, by foot?
If yes, by car?	If yes, by some other means of transport?

12. Indicate whether the following areas exist near your village. If they exist, indicate the approximate distance from your home, and any prohibited activities. (Note: These areas are obviously specific to Tanzania)

Livestock grazing area	Village Forest Reserve (Note: redundant if "Forest Reserve" is included in questionnaire for the purposes of Mpimbwe Division)
Cultivation area	Wildlife Management Area
Game Reserve	National Park

13. Have you ever heard of an area near your village under community control, rather than government control?

14. Who administers the national parks?

15. Why do you think Katavi National Park was started?

16. Was your family removed from the National Park?

a. If yes, why?

17. Do you think people should be allowed to live within the National Park or Game Reserve?

18. How you feel about the amount of wild animals around your village?

They are many	They are there to some extent
They are very few	I don't know

19. For the following wild animals indicate whether or not you have seen them in the forest, seen them in the village, whether or not they are dangerous and endangered.

Elephant	Lizard
Giraffe	Kudu
Monitor lizard	Warthog
Baboon	Reed buck
Vervet monkey	Topi
Lion	Wild dogs
Leopard	Fox
Tumbili?	Water buck
Buffalo	Zebra
Hippopotamus	Eland
Impala	Wildebeest
Hawk	Cheetah
Crocodile	Eagle
Hyena	Mamba snake

20. Among all the wild animals, which one is absolutely illegal to hunt?

21. What would you think If you hear that the government of Tanzania has changed the use of Katavi National Park to that citizens cultivate in the park are?

22. What would you think if you hear that starting today hunting will be allowed in the Park area?

23. What would you think if you hear that the road between Mpanda and Mpimbwe will be closed in order to ensure that wildlife not be disturbed by passing vehicles?

24. What would you think if you hear that Park workers will build a fence surrounding Katavi National Park in oder to improve wildlife protection by preventing livestock grazing?

25. What would you think if you hear that permanent residence will be allowed within Park boundaries?

26. What would you think if you hear that poachers were caught because they were hunting within the National Park?

27. Trees are important for humans for what reason?

28. Water is important for humans for what reason?

29. What is the relationship between trees and water?

30. Write the names of important or sacred places within the park?

31. Write the names of animals known to history/stories?

32. Is Katavi National Park important to the traditions of your family?

33. For the following trees indicate whether or not they are suitable for lumber, firewood, medicine, thorns, fruit, feeding livestock, whether or not they are scarce or difficult to grow.

34. Have you learned about environmental protection in school?
a. If yes, what did you learn?

35. Do you plant or take care of trees at home?
a. If yes, why?

36. What problems if any does your family get from living close to the National Park?

37. What benefits if any does your family get from living close to the National Park?

38. What is the benefit of wildlife?

39. How would you like to see the National Park used?

Cultivation	Environmental protection
Hunting	Timber cutting
Tourism	

40. Rate the following government income sources (1, 2, 3 or 4). The most profitable source should be given the rank of 1.

Cultivation	Livestock
Tourism	Mining

41. Have you ever seen foreigners?

Do they have bad behaviour?	Do they have good behaviour?
Why?	Why?

42. Have you ever seen tourists?

Do they have bad behaviour?	Do they have good behaviour?
Why?	Why?

43. Have you ever seen TANAPA rangers?

Do they have bad behaviour?	Do they have good behaviour?
Why?	Why?

44. Have you ever seen researchers?

Do they have bad behaviour?	Do they have good behaviour?
Why?	Why?

45. Indicate why you think tourism is important.

Tourism is not important.	Tourists bring money into our country.
Tourists bring money to our village.	Tourists learn about national culture.
Tourists help protect the environment.	Tourism helps to increase the national income.
Tourism increases national pride.	

46. Indicate work done by TANAPA rangers.

To understand wildlife	To improve living standards of local residents
To bring development	To protect the environment
They do not do any work.	

47. Have TANAPA guards ever come to your village?

48. If yes, why do they come?

49. Do TANAPA rangers supervise any local community development projects?

50. If yes, which projects?

51. Indicate work done by researchers.

To reduce poaching	To protect residents
To bring development	To protect the environment
To learn about wildlife	They do not do any work.

52. Draw a picture of what one would find inside that National Park.

TAARIFA YA UFUGAJI WA MITI YA ASILI NA MATUNDA SHULENI
TARAFA YA MPIMBWE

MRADI WA RUFFORD MPIMBWE

NA	SHULE	MKO-LA	MKE-SE	MKW-AJU	TUN-DA	MSO-FU	MSA-WALA	JUMLA Jan '08	JUMLA Mar '08	JUMLA Jun '08
1	CHAMALENDI S/M	110	160	25	6	-	-	301		
2	CHANZO CHA MAJI MOTO	150	130	-	-	45	-	325		
3	IKUBA S/M	110	160	25	6	-	-	301		
4	ILALANGULO S/M*	105	150	30	10	-	5	300		
5	IZIWASUNGU S/M	110	160	25	6	-	-	301		
6	KAKUNI S/M	300	200	-	-	-	-	500		
7	KANINDI S/M	200	130	-	-	47	-	377		
8	KASHISHI S/M	110	160	25	6	-	-	301		
9	KIKONKO S/M	110	160	25	6	-	-	301		
10	KILIDA S/M	110	160	25	6	-	-	301		
11	LUCHIMA S/M									
12	MAJI MOTO S/M*	130	150	15	10	-	5	310		
13	MAKUYUGU S/M						-			
14	MAMBA S/M	320	70	25	6	94	-	515		
15	MAMBA S/S	320	70	25	-	94	-	509		
16	MBEDE S/M*	125	150	15	10	-	5	310		
17	MBEDE S/S									
18	MINYONSO S/M	150	100	19	6	25	-	300		
19	MIRUMBA S/M*	105	150	35	10	-	5	300		
20	MKWAJUNI S/M	110	160	25	6	-	-	301		
21	MSADYA S/M*	16	180	-	6	-	-	202		
22	MWAMAPULI S/M	106	147	25	10	20	-	308		
23	MWAMATIGA S/M	200	130	-	6	45	-	381		

NA	SHULE	MKO-LA	MKE-SE	MKW-AJU	TUN-DA	MSO-FU	MSA-WALA	JUMLA Jan '08	JUMLA Mar '08	JUMLA Jun '08
24	NTASWA S/M	110	160	25	6	-	-	301		
25	PINDA S/S									
26	RUNGWA S/M	110	160	25	6	-	-	301		
27	TUPINDO S/M	140	120	30	10	-	-	300		
28	UKINGWAMINZI S/M	110	160	25	6	-	-	301		
29	USEVYA S/M*	110	160	25	6	-	-	301		
30	USEVYA S/S	100	148	40	10	10	-	308		
	JUMLA	**3997**	**3655**	**559**	**160**	**474**	**20**	**8556**		

Taarifa hizi zimeandaliwa na ……

Tarehe: ……

TAARIFA JUMUISHI YA UFUGAJI WA KUKU SHULENI
TARAFA YA MPIMBWE

MWEZI WA _____

Na.	Shule	Idadi jumla	Jogoo	Wate-tea	Vifa-ranga	Mayai	Dawa OTC*	Dawa NC*	Dalili	Vifo na Upotevu
1	Rungwa									
2	Kilida									
3	Mamba									
4	Kanindi									
5	Majimoto									
6	Mbede									
7	Tupindo									
8	Usevya									
9	Kashishi									
10	Ikuba									
11	Kakuni									
12	Ilalangulu									
13	Mirumba									
JUMLA							---	---	---	

* Weka tiki ✓ kama wamefuata utaratibu wa kutumia madawa haya.

Taarifa hizi zimeandaliwa na ……

Tarehe: ……