

ENDLINE SURVEYS

ENGAGING COMMUNITIES IN TACKLING POACHING AND ILLEGAL WILDLIFE TRADE



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ACRONYMS/ ABBREVIATIONS

COCOBA	Community Conservation Banks
FZS	Frankfurt Zoological Society
IWT	Illegal Wildlife Trade
KfW	German state-owned investment and development bank, based in Frankfurt
LeAP	Learning and Action Platform for Community Engagement against IWT
MNRT	Ministry of Natural Resources and Tourism
TANAPA	Tanzania National Parks
TAWA	Tanzania Wildlife Management Authority
TNRF	Tanzania Natural Resource Forum
VGS	Village Game Scout
VICOBA	Village Community Bank
WMA	Wildlife Management Areas

1.0 INTRODUCTION

1.1 Background Information

Since 2019, Tanzania Natural Resource Forum (TNRF) has been implementing the Learning and Action Platform (LeAP) for community engagement against the illegal wildlife trade (IWT) project, funded by the United Kingdom Government's Illegal Wildlife Trade Challenge Fund. The project is designed to develop best practice in involving communities in managing wildlife resources and taking action against wildlife crime, moving beyond law enforcement to successfully tackle poaching. TNRF has been carrying out the LeAP-IWT project through the collection of policy and evidence information regarding IWT whereby it has undertaken several activities, including a baseline survey that is based on the northern and southern zones of Tanzania. The main tasks during the survey included: interviews on IWT with selected community members and conservators; capturing of baseline evidence; developing a monitoring baseline data and documentation of success and best practices.

This report documents the findings of the endline survey, conducted in September 2021, which purposely evaluates the situation of communities adjacent to protected areas as compared to the past three years (2019). It also documents actions and interventions made by a number of stakeholders during the said timeline and the impact and outcome they have caused on the community in combating poaching and illegal wildlife trade.

1.2 OPERATIONAL CONTEXT

The survey was based on the northern and southern ecological circuits of Tanzania. The main tasks during the survey included interviews on IWT within selected community member villages, key format interviews, and focus group discussions. This report presents the process and findings from the northern and southern circuit areas and shows comparisons and differences between 2019 and 2021 to determine possible changes.

1.3 MAIN OBJECTIVE

To evaluate the current status of community engagement in preventing poaching and IWT within villages adjacent to the western Serengeti National Park in the northern ecological circuit and Nyerere National Park (formally known as Selous Game Reserve) in the southern ecological circuit of Tanzania.

2.0 STUDY DESIGN AND METHODOLOGY

2.1 Study Area.

The survey was conducted in the same communities adjacent to protected areas (Serengeti National Park and Nyerere National Park, formerly known as Selous Game Reserve) in 2021 as it was in 2019. Serengeti National Park represents Tanzania's northern ecological circuit, while Nyerere National Park represents the country's southern ecological circuit.

Figure 1: Map of Tanzania showing the two study areas



Source: http://www.ed.co.tz/wp-content/uploads/Nyerere_MAP_big.jpg

2.2 Northern Ecological Circuit: Western Serengeti Ecosystem in the Serengeti District

Serengeti National Park, established in 1952, is one of the world's oldest ecological systems, and unquestionably the most well-known. It is unparalleled in terms of natural beauty and scientific value. It has the highest concentration of plains game in Africa, with resident lions, cheetahs, elephants, giraffes, and birds, as well as a large migration of wildebeest and zebra. Serengeti National Park is located in the Serengeti district of the Mara region. It is bordered by Bunda district to the south-west, Butiama district to the west, Tarime district to the north-east, Ngorongoro district to the east, and Bariadi district to the north. It is located at 10 30' S, 2040 S' of the equator and 340 150 E, 300 30' E of the Greenwich Meridian.

2.2.1 Land coverage

The Serengeti district encompasses an area of 10,372.2km² (100%) that has been fragmented or divided into smaller parcels for various land uses.

Table 1: Categorization of land in the Serengeti District (Northern Ecological Circuit)

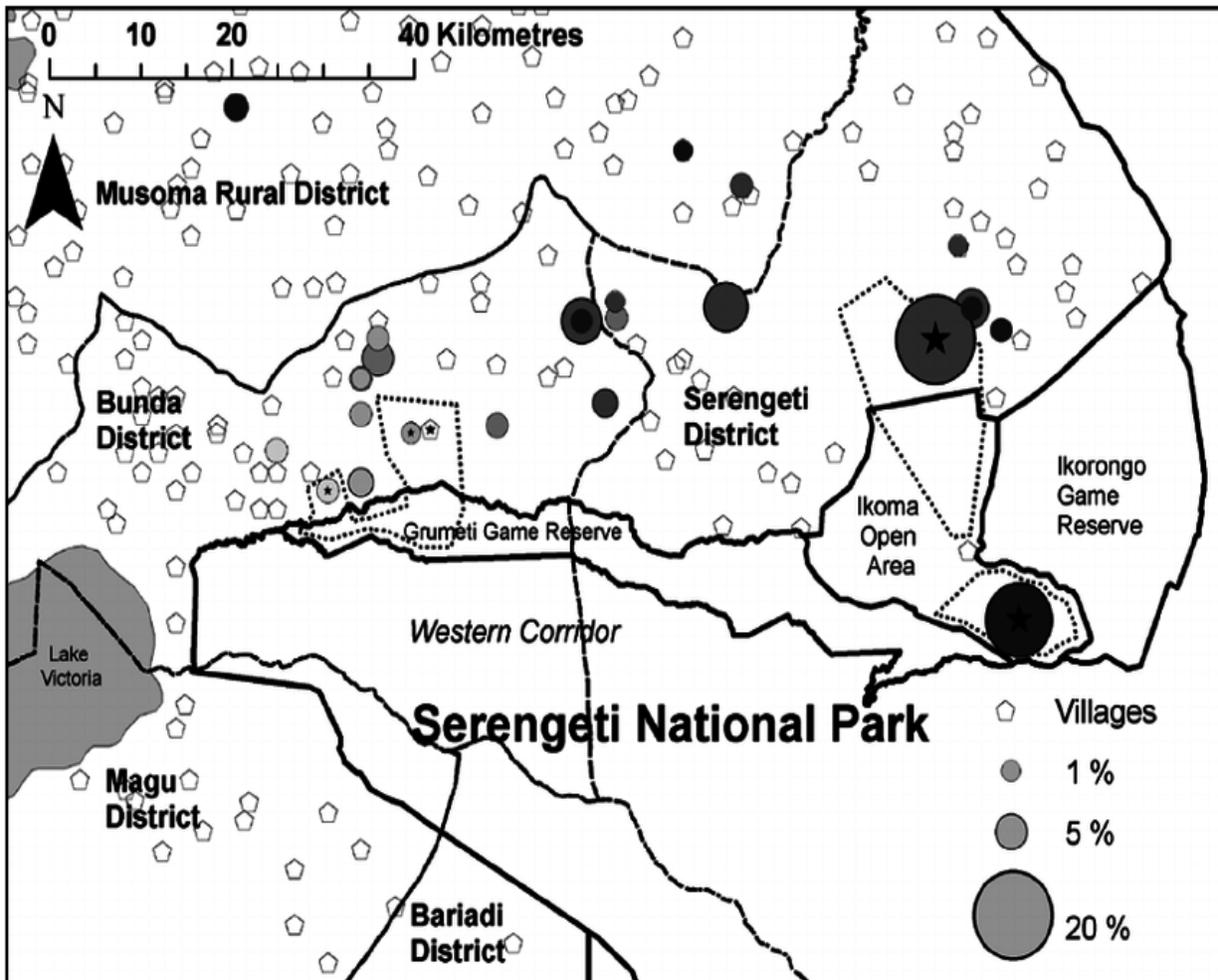
NO	NAME	LAND COVERAGE	PERCENTAGE
1	Serengeti national park	7,000.0km ²	67.5
2	Protected wilderness of Ikorongo	558.9km ²	5.4
3	Protected wilderness of Grumeti	434.5km ²	4.2
4	Wildlife Management Area (WMA)	242.3km ²	2.3
5	Mugumu municipal authority	240.0km ²	2.3
6	Agriculture, livestock, residents	1,897.3km ²	18.3
TOTAL		10,372.2km²	100.0

Adapted from 2018 Serengeti District Socio-economic Profile

2.2.2 Demography

Referring to the 2012 Tanzanian census, Serengeti has a population of 249,420. Among the 121,399, 48.68% are men, and 128,021 (51.33%) are women. This equals 2.8% population growth per month. At Mugumu municipal, 4,450 4 are men and 728 9 are women, making a total of 178 5.0 people.

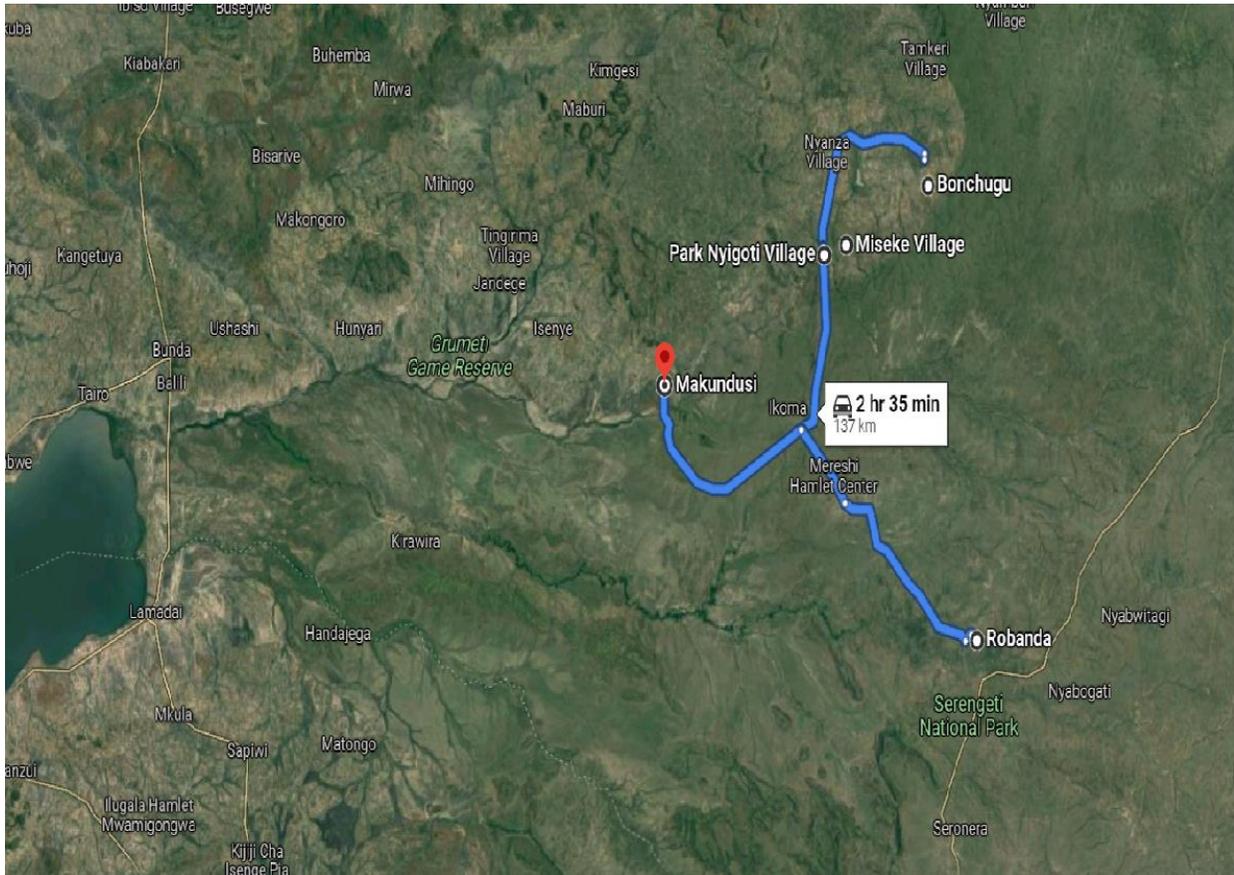
Figure 2: Map showing the distribution of villages and PAs in the western Serengeti



Distribution of villages and PAs in the western Serengeti (heavy black line); Indication of villages with higher poacher's arrest. Heavy dashed lines are district administrative borders and dotted lines show the approximate location of patrol areas of the VGs. (Source: T. Holmern, J. Muya and E. Røskaft, 2007)

Below is a sketch or a portion of a Google map showing selected villages in the Western Serengeti National Park ecological circuit! The villages (Bonchugu, Miseke, Park Nyigoti, and Robanda) were chosen with care because they border the Serengeti National Park, Grumeti Reserves, Ikona Wildlife Management Area, and Ikorongo Game Reserve. The villages also have a history of poaching and a higher number of arrested poachers in the ecological circuit.

Figure 3: Part of google map showing villages visited during field survey



Source: Google Map, 2021

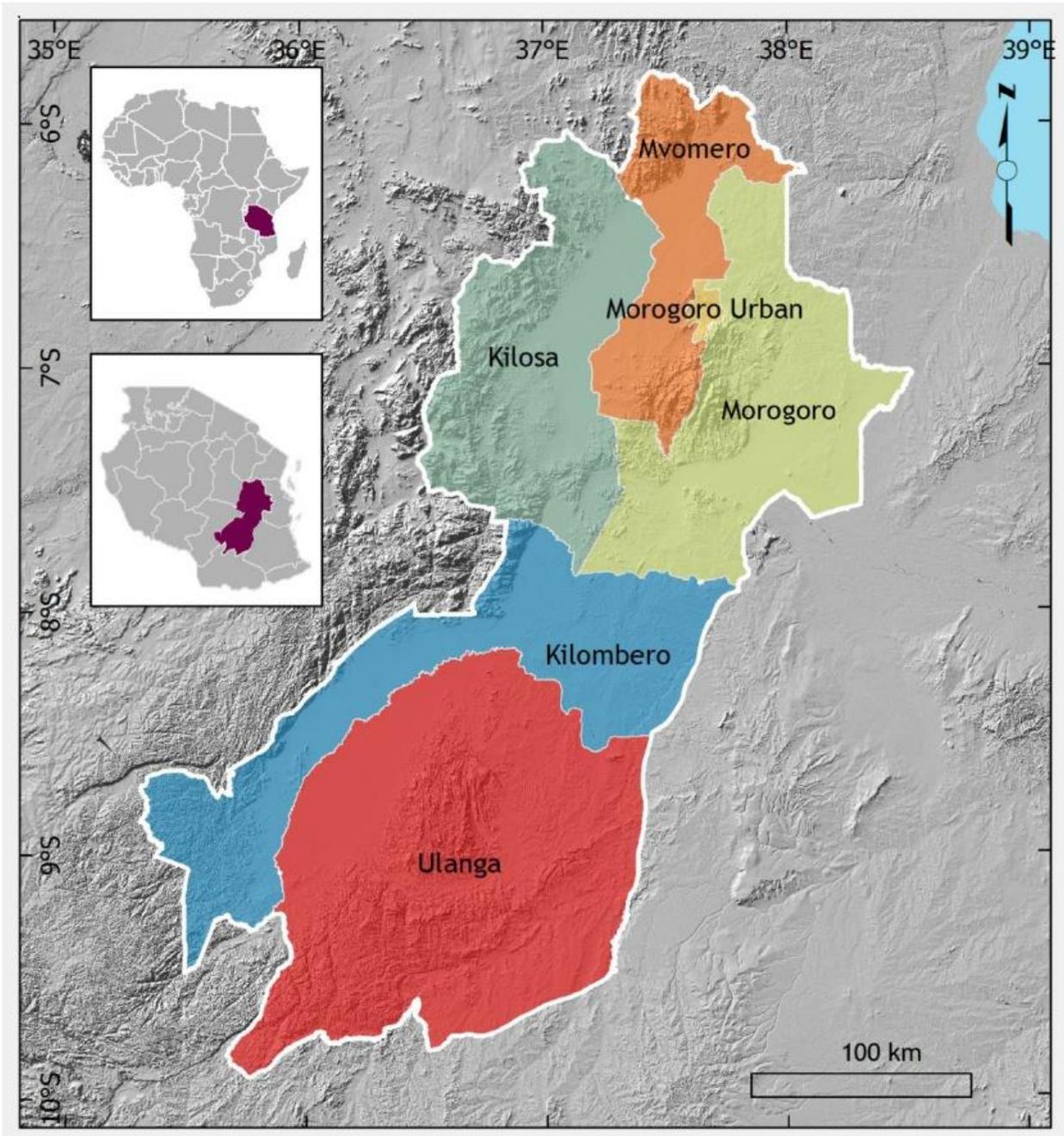
2.3 The Southern Ecological Circuit of Tanzania, Nyerere National Park, Morogoro Rural District

Tanzania's Southern Ecological Circuit includes the national parks of Nyerere, Ruaha, Mikumi, and Udzungwa. It also includes the Uluguru Mountains, Selous Game Reserve, Rungwa Game Reserve, and a number of Wildlife Management Areas (WMAs) that have been established within wildlife corridors and open areas. The ecosystem is home to rare African wild dogs, a large elephant population, and the continent's rarest black rhinos. It is a coastal heritage trail that includes Bagamoyo, Kilwa (an important trading center), and Mafia Island (early swahili settlements, and Dar es Salaam). The greater Ruaha river enters Nyerere/Selous from the west, passing through steep gorges past hot springs.

2.3.1 Morogoro Rural District

Morogoro Rural District is one of six districts in Tanzania's Morogoro Region, covering an area of 19,056 square kilometers (7,358 sq mi). It is bounded to the north and east by the Pwani Region, to the south by the Kilombero District, to the southwest by the Kilosa District, and to the west by the Mvomero District and the Morogoro Urban District. The Morogoro Rural District had a population of 286,248 in 2012.

Figure 4: Map of study area (Morogoro District)



Study area (Morogoro)

Source: Ojoi, M. M., et. Al., 2015

2.3.2 The Nyerere National Park and the Selous Game Reserve Ecosystem

Nyerere National Park and Selous Game Reserve are protected areas in southern Tanzania that cover an area of 50000km² and were designated as a UNESCO world heritage site in 1982 due to their wildlife diversity and undisturbed nature. The Matambwe area in Nyerere National Park is 94 kilometers south of Morogoro town, in the Morogoro rural district, in the south-eastern foothills of the Uluguru Mountains. Morogoro district is located in the Morongoro region's north-east. To the north and west, the district is bordered by Bagamoyo and Kisarawe districts (coastal region), as well as Kilombero district. It is located 60 and 80 degrees south of the equator, and 360 and 380 degrees east of Greenwich.

The size of Austria, Nyerere National Park (which borders our selected study villages) is an immense area of protected wilderness that has remained untouched for millions of years. The Nyerere National Park is the biggest national park in Africa, covering a total area of 30,893 km² (almost 12,000 sq. miles), 3.2% of Tanzania's land surface. A large area of the reserve is drained by the Rufiji River.

There are over 2,000 species of plants, over 430 species of birds, and 60 species of mammals. In 1982 it was designated a UNESCO World Heritage Site due to the diversity of its wildlife and undisturbed nature. It's a unique environment rich in water, channels and lakes; abundant with wildlife and little visited by tourist, compared to northern parks. You can enjoy a variety of activities thanks to the lakes and the Rufiji River. Nyerere National Park together with the Selous Game reserve is also the biggest stronghold for wild dogs in Africa and surely one of the places where you would have more chances to spot them!

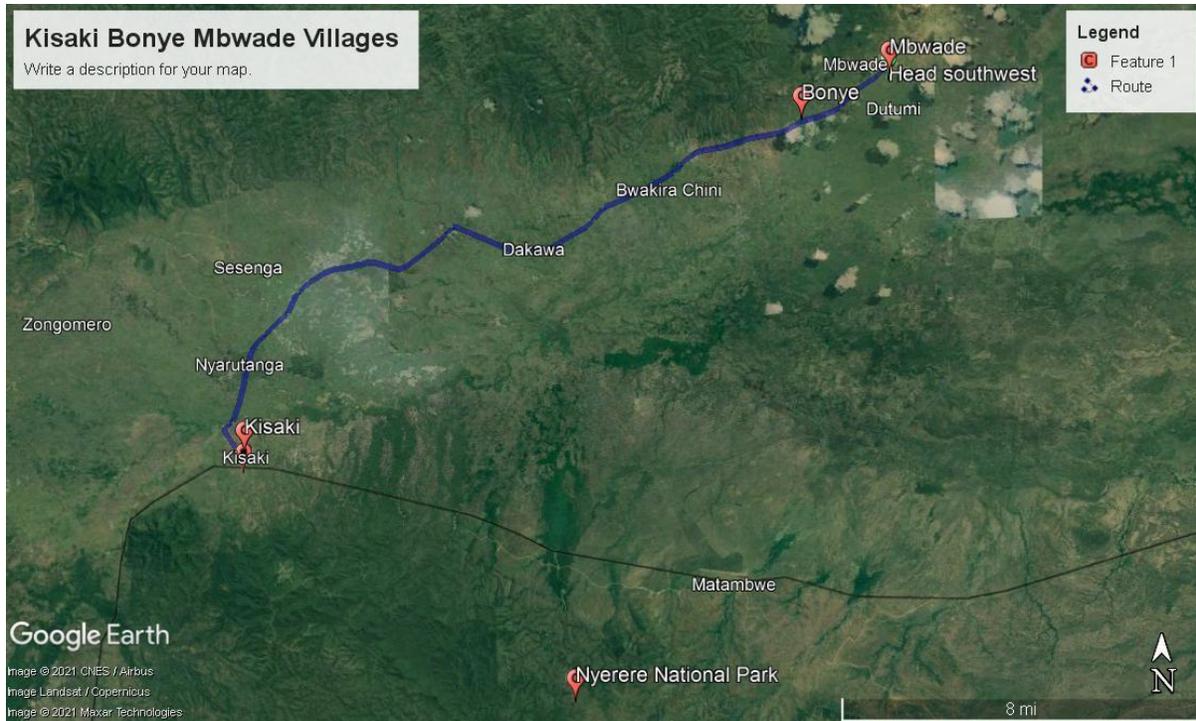
2.3.3 Park History

In November 2019 almost two third of the Selous Game Reserve has been turned into a National Park and renamed Nyerere in honor of the "father of the Nation", Mwalimu Julius Kambarage Nyerere, the first president the country had after independence and a great conservationist.

This new status means that hunting will not be permitted in the area, whether local or tourist hunting that falls under the National Parks. It is basically set aside for photographic tourism and game watching.

The surveyed villages in the southern ecosystem circuit are three, namely Bonye, Mbwade, and Kisasi in Morogoro rural district. These villages border the western sides of Nyerere National Park, Mikumi National Park, and Udzungwa Mountains National Parks. These villages are located in relatively inaccessible and agriculturally marginal areas where, furthermore, the villagers' lives and livelihoods are threatened by the proximity of wild animals. This led them to depend almost 100% on poaching and the illegal wildlife trade in the past.

Figure 5: Part of google map showing selected study villages



Source: Google map, 2021

2.4 RESEARCH DESIGN

This survey was carried out in communities adjacent to Serengeti and Nyerere National Parks. The two areas were chosen as representatives of all other communities adjacent to protected areas. The research was both quantitative and qualitative; it focused on how communities are involved in stopping poaching and IWT within their areas. The methods for data collection and analysis are described according to the objectives of the study; they are linked to research questions, data collected, and strategies for analyzing the data.

2.4.1 Sampling procedure and sample size

The sample design in this survey was purposely adapted from the 2019 baseline survey to accumulate data from the same ecological circuits, villages and households for population presentation. Referring to the baseline survey; 'a judgmental (purposeful) sampling method was used to choose the communities for the survey, they had to be adjacent to National Parks and represent the Northern and southern ecological circuits. Based on the requirements Serengeti National Park and Nyerere National Park were selected. Eight villages were purposely and consecutively selected to reflect project objectives in terms of support to be provided and outcomes to be achieved. Households in the villages were randomly selected.' Thus, the same villages were surveyed.

Sample Size

Based on the 10% population presentation attained in each village in 2019, the field research lead determined to use the same sample size to carry out the survey. For the survey, two different types of questionnaires were developed. One focusing on the key informants and the other on households in the villages, the respondents included household heads, village leaders, district officers, governmental officers, experts, and members of NGOs in Serengeti National Park and Nyerere National Park with issues related to illegal wildlife trade and poaching. The sample size selected for the questionnaire is shown below in Table 2:

Table 2: Sample size selection on a 10% household representation in the 8 villages.

No	Villages		Total No. of	10% hh	Respondent's No
	Northern	southern			
1	Bonchugu		500	50	38
2	Miseke		602	60	53
3	Park Nyagoti		315	31	31
4	Makundusi		804	80	80
5	Robanda		415	42	44
6		Bonye	1200	120	120
7		Mbwade	1810	181	182
8		Kisaki	1176	118	119
	Total		6,822	682	667

Source: Survey data, 2021

2.4.2 Survey planning

The planning of the survey started in the TNRF offices where a survey map was designed on how to carry out the survey; the plan included people and schedules to accomplish the survey. Engaging enumerators on sites for the survey was the next step; the field research lead held three training meetings with the enumerators, one at Mugumu in Serengeti district and the others at Bonye and Kisasi villages in Morogoro district. The enumerators were from two different types of groups; thus, in Mugumu district, the enumerators were composed of district game officers and graduate students on a field attachment, while at Morogoro rural, they included graduates from various academic institutions, colleges, and universities. The meetings were held to improve understanding of the project and the communities that would be involved in the survey, as well as how the survey will be carried out in the five villages of Mugumu (Serengeti District) and three villages of Bwakila (Morogoro Rural District). At the meeting, the survey plan was discussed, data collection tools were reviewed and approved, with a realistic time frame for conducting the survey as agreed. The enumerators were taken through the guidelines, baseline questions, data collection tools, ethical standards, and logistics. The survey instruments were pre-tested to determine the relevance of the questions, survey time, and interpretation challenges. After pre-testing, the survey instrument was finalized for field use.

2.4.3 Data Quality and Management.

The Northern ecological circuit villages at Serengeti District, Mugumu area had one team of 5 enumerators with the field research lead Mr. Philipo Malley and the District Game Officer Mr. Deogratius Mtaita as supervisor of the team throughout data collection. Research experts Mr. Pendael Amos and Mr. Philipo Malley provided spot checks to monitoring data quality. For the Southern circuit, which is Morogoro rural district, enumerators were set into three groups as per available sub-villages. Because the sample size was large, each enumerator had to complete at least 20 household questionnaires throughout the survey. Villages chosen in Morogoro rural district have had historical incidences poachers' arrest which was our targeted areas. It was therefore necessary to divide each sub-village enumerators and questionnaire equally to reduce bias on collecting data.

2.4.4 Data Collection Methods

Different methods were applied in the study for data collection. These methods included administering questionnaires, key informant interviews, focus group discussion, and participant observation to obtain primary data.

Primary data collection

Primary data was collected from villages around Serengeti National Park on the Northern Ecosystem Circuit and Nyerere National Park on the Southern Ecosystem Circuit by using structured questionnaires, checklist for key informant interviews, focus group discussion as well as participant observation.

Questionnaire administration

Questionnaire with both open and closed-ended questions were administered to the respondents at Mugumu and Morogoro villages. The questionnaire targeted the villagers, conservationists and governmental officials. The questionnaire had questions focusing on how the community is involved in the process of combating poaching and illegal wildlife trade.

Interviews

Personal interviews (face-to-face interviews) were conducted in Serengeti with a set of questions guiding the interviews. At the Northern Ecosystem Circuit, the team conducted 246 interviews with community households in 5 villages, and at the Southern Ecosystem Circuit a total of 421 households were interviewed, making a total of 667 households interviewed altogether in both ecosystem circuits, with a presentation of 10% of the sample population based on each village's household demographic population. The villages where interviews were conducted include Park Nyigoti 31 households, Miseke 53 households, Bonjugu 38 households, Robanda 44 households, Makundusi 80 households, Bonye 120 households, Mbwade 182 households, and Kisaki 119 households.

Focus group discussions

Focus group is a special type of group in terms of size, purpose, composition and procedure used to gather information from a clearly defined audience (Krueger, 1988). The team conducted 7 FGD in 7 villages thus 4 in the Northern ecological zone and 3 in the Southern ecological zone. The formed groups comprised of both male and female with various interest groups including elderly, the youth and well-known people within the villages. The FGD varied from 6 to 12 members, however the group discussion at Robanda village was large, as its members exceeded the required number; they were 22 members in the discussion. The discussions were guided by a list of questions as led by the facilitator. The aim of the discussion was to supplement and triangulate information that was collected through other methods.

Key informant interviews

Mountain States Group Inc (1999) defines key informant interview as an in-depth interview with a wide range of people who are knowledgeable, understanding and have first-hand information about a topic. They fully understand the nature of the topic and sometimes possible solutions.

For this study the key informants included officials at Serengeti district and Morogoro rural district, conservationists, village leaders, elderly persons and governmental officials.

2.4.5 Data coding and analysis

The data collected from households in 8 villages and key informants through focus group discussion and interviews were coded, processed and then analyzed. The analysis was aided by the statistical package of social science (SPSS) and Microsoft excel. These easily manipulate data in a way that is understandable and simple to use and interpret. Finally the presentation of different variables was done using tables, percentages, bar charts and line graphs





3.0 ENDLINE SURVEY FINDINGS AND RESULTS

This chapter presents key endline survey finding and results that are compared with 2019 results forming a discussion that shows the trend and pattern on the current situation of poaching and IWT in relationship to communities' engagement in combating the same.

3.1 Overview

This section presents the results of the study from the two selected sites. The section is divided into three sub-sections. The first sub-section illustrates results from household interviews in both the northern and the southern circuits. Sub-section two discusses the results of focal group discussions in the sampled villages of both circuits, and sub-section three discusses results from a key format interview presenting policy and project implementers' perceptions towards community engagement in tackling IWT. It covers both northern and southern ecological circuit villages, and the policy makers were selected purposively as per their positions in dealing with IWT in Tanzania.

3.2 Communities Perception towards poaching and illegal wildlife trade; local to national level perspective

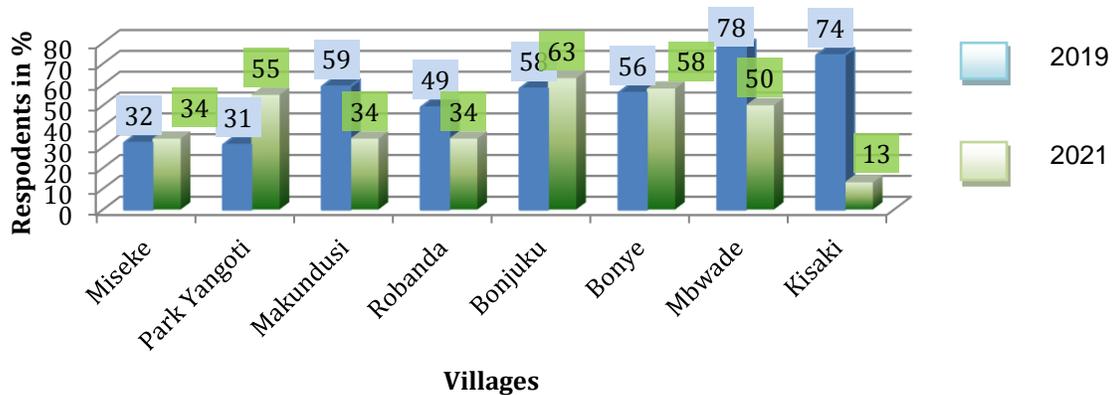
Local community perception of poaching varied among respondents in eight (8) villages surveyed in both the Northern and Southern Circuits of Tanzania. The two circuits were compared as the 2021 questionnaire was structured in a way that it fit the same content required in 2019. The same villages were surveyed to see whether there was improvement in community understanding and knowledge of stakeholder efforts in tackling and combating poaching and illegal wildlife trade in Tanzania. A significant number of respondents understand and acknowledge that poaching and illegal wildlife trade is a huge problem in their locality and at national level. The table below illustrates the results in percent as from the responses of the survey, which was conducted in 2019 and 2021, respectively.

Table 3: knowledge of poaching and IWT at the National and Local Level in %

VILLAGES	2019		2021	
	National level	Local level	National Level	Local Level
Miseke	73	32	59	34
Park Yangoti	70	31	61	55
Makundusi	86	59	56	34
Robanda	61	49	59	34
Bonjuku	79	58	74	63
Bonye	80	56	63	58
Mbwade	97	78	70	50
Kisaki	82	74	46	13

Source: Field Data, 2021.

Figure 6: Responses from local level; Knowledge and understanding on poaching IWT.



Source: Field Data, 2021.

Discussion

Discussing these facts, table 3 shows the national and local level perception of poaching and IWT. A clear presentation of the local perception in the graph above indicates that there is a change in the percentage of some villages. Four villages are increasing as the graph shows. For example, Park Nyagoti has 31% in 2019 and 55% in 2021, implying that incidences of poaching and IWT have also increased in the said villages. While the other four indicate a decrease, taking the case of Kisaki's having 73% in 2019 and 13% in 2021, implying that poaching and IWT are decreasing. When looking at the national level, results show that poaching and IWT are decreasing since there is a difference in % in 2019 as compared to 2021. The difference has grown, indicating that most community members are now not witnessing or hearing about poaching and IWT events, though they all believe that it is still there on a small scale. Villages highlighted with the green color in table 4 below show a high rate of change.

Table 4: Difference between % responses of 2019 and 2021 on presence of poaching and illegal wildlife trade nationally and locally

Community perception on presence of poaching events: A comparison of 2019 and 2021			
Villages	Percentage 2019	Percentage 2021	Difference
Miseke	73	59	14
Park Nyagoti	70	61	9
Makundusi	86	56	30
Robanda	90	59	31
Bonjuku	79	73	6
Bonye	80	63	17
Mbwade	97	70	27
Kisaki	82	46	36

Source: Field Data, 2021.

According to the 2021 survey, respondents believe poaching and illegal wildlife trade are the results of a variety of reasons, as suggested during the interview, including:

- Incidences of frequent arrests of poachers are evident in the villages (even my brother was arrested and he is now in prison).
- The presence of bush-meat within some families in the village
- The presence of wildlife remains from household waste.
- Poaching and law enforcement are weak in some parts of the country, which gives a loop for poaching and IWT.
- Because I do purchase or buy bushmeat from poachers almost every time I need the meat.
- Youth who are poachers do condemn and threaten the lives of village leaders who are trying to tackle poaching and IWT activities. (Vijana wamekuwa tishio kwani kijiji pamoja nawazee hawana la kusema juu ya ujangili)
- I was a poacher and I know who still poachers are now.

3.3 Poached wildlife 2021

Through those who perceive that there is still poaching and illegal wildlife trade within the country and their localities, identified the wildlife species most hunted and the reasons for the species mostly hunted in Tanzania.

1. Impala are poached for meat for both subsistence and commercial reasons.
2. One being the shift from the ivory trade to bush meat, the other being the degree at which respondents pointed out that elephants are highly poached is influenced by two factors; one being the shift from ivory trade to bush meat. This is because there was an arrest and prosecution of hundreds of ivory trafficking ringleaders, which led to no market for ivory. Two, the coverage of information travel when the elephant is killed enriches a larger population of users compared to other wild animals as the meat supply reaches the nearby villages.
3. Eland are poached for meat for both subsistence and commercial reasons (at a local level).
4. Buffaloes are poached for meat for both subsistence and commercial reasons (at a local level).
5. Wildebeests are poached for meat for both subsistence and commercial reasons at a local level for food and the market therein. (Sometimes transported to neighboring countries as the kill might be of many animals with bulky products.)
6. Topi are poached for meat for both subsistence and commercial reasons (at a local level).
7. Zebra are poached for their skin and meat for both subsistence and commercial reasons.
8. Warthog for meat for both subsistence and commercial reasons (at a local level).
9. Giraffes are poached for meat for both subsistence and commercial reasons.

3.3.1 Comparing and ranking wildlife mostly hunted in 2019 and 2021

One of the respondents in the survey stated that;

“for a number of reasons the country (Tanzania) has been focusing on poaching data of elephants and rhinos as these animals are threatened, however there is a great shift of poaching from these two large wild animals to lesser size animals”

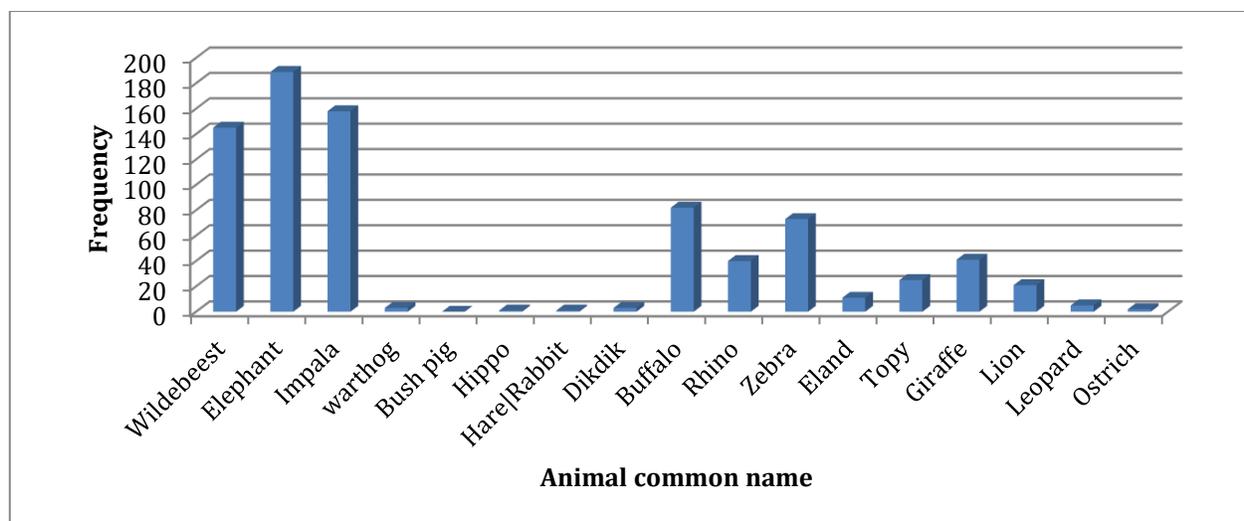
It is also believed that they have a larger population of wildlife which is not in the IUCN Red list. The survey data also supports the said statement as during the interview, a number of other wild animals are poached and in the IWT stream.

Table 5: List of wild animals mostly hunted in the villages sampled within Northern and Southern Ecological Circuits

VILLAGES										
NO	Wild animals	RO BA ND A	P.YA GOTI	M AK UN DU SI	MISE KE	BO NJU KU	BON YE	KISA KI	M B W A D E	Total frequency in sampled villages
1	Wildebeest	16	14	47	27	12	7	8	14	145
2	Elephant	20	12	24	15	8	34	14	62	189
3	Impala	12	9	9	15	11	28	8	66	158
4	warthog	0	0	0	0	0	1	1	1	3
5	Bush pig	0	0	0	0	0	0	0	0	0
6	Hippo	0	0	0	0	0	1	0	0	1
7	Hare Rabbit	0	0	0	1	0	0	0	0	1
8	Dikdik	0	0	0	0	1	0	0	2	3
9	Buffalo	11	2	8	7	7	7	6	34	82
10	Rhino	4	3	7	4	1	1	6	14	40
11	Zebra	5	6	18	14	8	14	0	8	73
12	Eland	2	1	3	3	1	0	0	1	11
13	Topy	6	1	9	6	3	0	0	0	25
14	Giraffe	4	1	9	3	0	1	4	19	41
15	Lion	3	0	2	0	0	0	2	14	21
16	Leopard	0	0	0	0	0	0	1	4	5
17	Ostrich	0	0	0	0	0	1	0	1	2

Source: Field Data, 2021.

Figure 7: The frequency of mostly poached wild animals for both subsistence and commercial reasons in the sampled villages



Source: Field Data, 2021

3.4 Role communities in tackling poaching and illegal wildlife trade

Rural communities are taking active roles in combating poaching and reducing IWT. In 2019, villages surveyed portrayed how they have been supporting stakeholder initiatives; for example, in the northern circuit, the five villages surveyed showed a 61% involvement in reducing or combating poaching and IWT, while in the southern circuit, three villages showed a 75% contribution as their role. Comparing it with 2021 survey the northern circuit involvement has risen up to 76.24% while that of southern circuit has dropped to 46.6% by a variation of 28.6%. The rise seen in the northern circuit is a result of number of interventions that have been done by different stakeholders such as NGOs, the government and other private sectors as portrayed in section 5 below. The interventions have proven to be effective causing a change of mind set to the local communities. The decline in the southern circuit has been influenced by few interventions ongoing in involving and supporting the community in tackling poaching and illegal wildlife trade (IWT).

By the responses collected in the 8 villages of both the northern and the southern ecological circuits, their role and participation in tackling poaching and illegal wildlife Trade (IWT) is through;

- Participation in anti-poaching and law enforcement activities (Kikosi kazi na mshikamano) through village game scouts, and informers. This is evident in the Ikona and Jukumu WMAs (Morogoro rural)
- Influencing each other through awareness rising on the importance of wildlife-based tourism in the area
- Engaging in non-wildlife based economic activities such as farming and livestock keeping (Makundusi, Robanda villages)

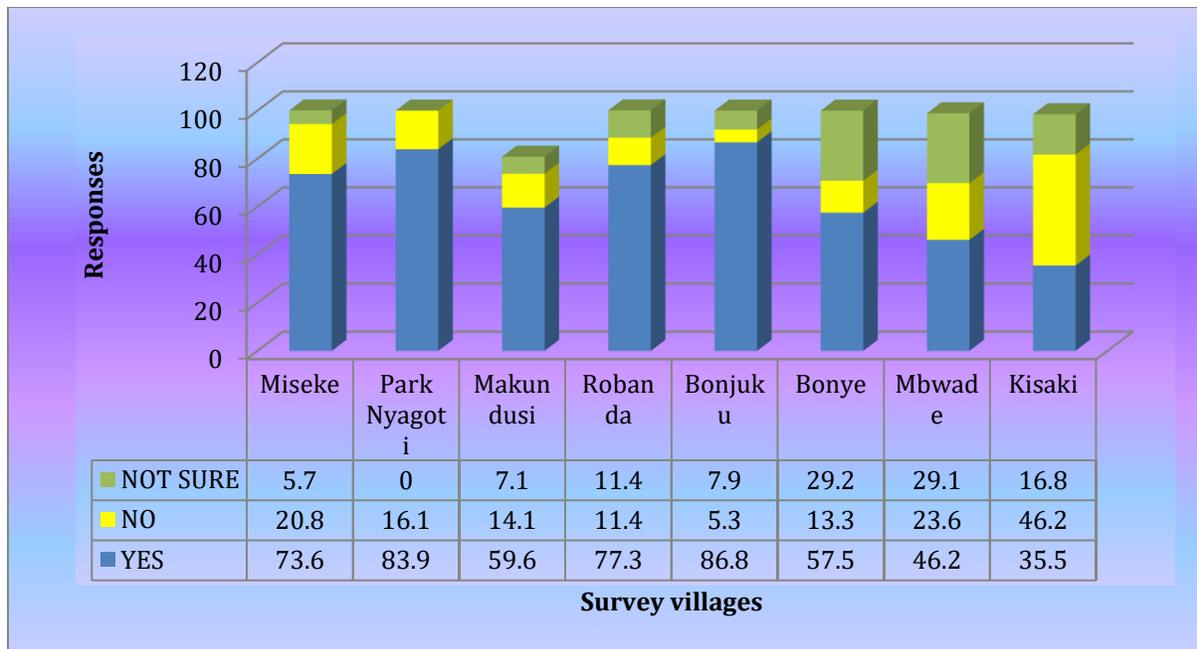
- Employment opportunities to the youth has as well reduced poaching and IWT(Miseke and Makundusi villages)
- Assistance in engaging in the small and medium enterprise in groups of women and youth to have non-wildlife based economic activities such as horticulture, aquaculture and poultry farming in Park Nyigoti
- Spreading a word on community involvement in tackling poaching and illegal wildlife trade
- Communities have a role to advice and manage or control youth not to get involved in poaching and illegal wildlife trade (Makundusi, Park Yangoti)
- There is village committee dealing with capacity development in combating poaching and illegal wildlife trade (Bwade village)

Figure 8: Role of communities in tackling poaching and illegal wildlife trade 2019



Source: Field Data, 2021

Figure 9: Role communities in tackling poaching and illegal wildlife trade 2021



Source: Field Data, 2021

Discussion

The difference below indicates that the role community is given by the government in combating and tackling poaching and illegal wildlife trade is highly appreciated by most respondents as shown in the figures above. This indicates that communities are positive to the government on conservation activities such as combating poaching and illegal wildlife trade.

3.4 Recognition of community contributions in formulation of laws, and policies by the government on poaching and IWT

As of the 2019 survey conducted, 55% of all respondents in the 8 villages interviewed pointed out that they are being recognized by laws, policies and government while 45% said they are not recognized by laws, policies and the government actions and procedures particularly their role in combating poaching and illegal wildlife trade. The results of a survey conducted in 2021 pointed out that 40% are likely recognized, 28% are not likely while 29% do not know.

Figure 10: Recognition of community contributions in formulation of laws, and policies by the government on poaching and IWT



Source: Field Data, 2021

Discussion

Following from Figure 9, results reveal that there is now recognition of community contribution towards formulation of laws and policies, with 5 villages in both southern and northern ecological circuits whose respondents agree that their contributions are recognized. The three villages that disagree are Park Nyigoti (north), Bonye (south) and Mbwade (south). This is because they do not like conservation professionals because of fear of being arrested and/or prosecuted as they are highly involved in poaching and illegal wildlife trade; they feel they are known community-wide, so being close to conservation professionals is a threat to them. For example, the table below reveals that those who said no in the year 2019 have now changed to yes, as they did, for example, in Miseke village, where yes was 39.3% (2019) and 66% (2021). On the other hand, yes responses have decreased in Bonye village from 39.7% (2019) to 12.5 (2021) because they are still hunting and they hate the by-law enforcement team, who are mainly village leaders, and they are now in conflict with the leaders to the point that their grievances are at a higher stage. They are therefore not ready to contribute towards combating poaching and the illegal wildlife trade.

Respondents added within the questionnaire that the government recognizes the community's role in tackling poaching and illegal wildlife trade. This is because communities work through groups formed for the purpose of tackling poaching and illegal wildlife trade, such as village game scouts, environmental committees, and community contributions in the formulation of by-laws. Communities agree that there has been a reduction in poaching incidences by 95%. Therefore, the government recognizes the role of the community in tackling poaching and illegal wildlife trade, one of which methods they use is to punish community members found poaching. The government also recognizes that by-laws have been used in decision making. They also pointed out that the government consults community leaders on site selection for the projects. However, some women pointed out that women are not asked or consulted by the local leaders in tackling

poaching and illegal wildlife trade as long as the poachers are only men (Mwanamke hana mamlaka).

3.5 Presence of anti-poaching and illegal wildlife trade projects or activities within community

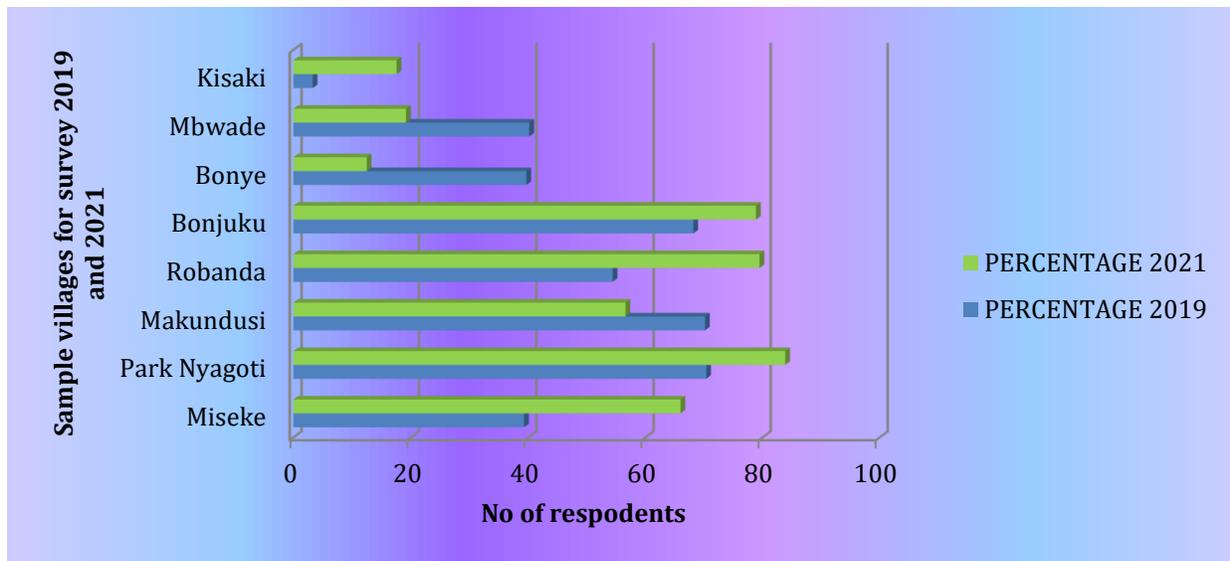
The study conducted in the year 2019 found that 94% of respondents from Kisaki village said there were no anti-poaching and IWT projects, while in Mbwade and Bonye villages, it accounted for 60% and 59%, respectively. On the other hand, 31% and 30% of respondents in Mbwade and Bonye villages, respectively, said there are anti-poaching and IWT projects or activities within their communities. Communities appreciate the level at which they are involved in the projects through village meetings, purposeful awareness training, and providing project activities that influence the youth on poaching and IWT, like supporting the construction of schools and projects on bee farming. They demonstrated that to be the best practice in eradicating poaching and IWT in their villages.

Table 6: Comparing the presence and absence of anti-poaching and illegal wildlife trade projects or activities within community

VILLAGES	2019 RESPONSES IN %			2021 RESPONSES IN %		
	YES	NO	I DON'T KNOW	YES	NO	I DON'T KNOW
Miseke	39.3	60.7	-	66	28	5.7
Park Yangoti	70.4	29.6	-	83.9	12.9	3.2
Makundusi	70.2	28.8	-	56.6	19.2	3
Robanda	54.4	45.6	-	79.5	15.9	4.5
Bonjuku	68.2	31.8	-	78.9	18.4	2.6
Bonye	39.7	60.3	-	12.5	87.5	-
Mbwade	40.2	59.8	-	19.2	72.5	-
Kisaki	3.3	96.7	-	17.6	78.2	4.2

Source: Field Data, 2021

Figure 11: Comparing the presence of anti-poaching and illegal wildlife trade projects or activities within community between 2019 and 2021



Source: Field Data, 2019 and 2021

3.6 Community consultation by the Government on how to combat poaching and illegal wildlife trade in Tanzania

The study revealed that 30% (consulted) and 70% (not consulted) at Miseke, while Park Nyagoti showed 39% (consulted) and 61% (not consulted), Makundusi 54% (consulted) and 46% (not consulted), Robanda 54% (consulted) and 46% (not consulted) and for Bonjugu 49% (consulted) and 51% (not consulted). The consultations were conducted through meetings, seminars, education, and training from game reserve centers. The communities evidenced that the government has used its bodies like TANAPA, where communities at Miseke were given opportunities to voice their views on how to come up with task forces for combating poaching and illegal wildlife trade. This was taken as best practice for accountability purposes.

Discussion

The results above reveal that communities are highly consulted in some villages, such as Robanda, with a score of 53.4% in the year 2021 compared to 2019, which is 49%. This shows that the Robanda community is much closer to the conservation stakeholders than it was in the year 2019. It reveals that there is more understanding and knowledge about the importance of conserving wildlife resources through combating poaching and illegal wildlife trade. However, there is a decline in some villages, such as Bonye, with 17.4% in 2019 and 11.7% in 2021, and Mbwade, with 25% in 2019 and 6% in 2021. There is little community consultation in some villages as they are still poaching because they are not ready to contribute towards combating poaching and the illegal wildlife trade.

Table 7: Community consultation by the Government on how to combat poaching and illegal wildlife trade in Tanzania

Villages	Response		Difference
	2019	2021	2021 - 2019
Miseke	30%	55%	25%
Park Nyagoti	39%	55%	16%
Makundusi	54%	35%	-19%
Robanda	49%	52.30%	3%
Bonjuku	49%	45%	-4%
Bonye	17.40%	11.70%	-6%
Mbwade	25%	6.00%	-19%
Kisaki	27.60%	13.40%	-14%

Source: Field Data, 2019 and 2021

The difference below in negative (2021 – 2019) shows that community consultation by the government has decreased from 2019 for example Makundusi and Mbwade by 19%. There was information from the Village Executive officer that some community members are not ready to meet leaders as they are afraid of their behavior of poaching and illegal wildlife trade. The table below shows that improvement is only in three villages namely, Miseke, Park Nyagoti and Robanda. It seems the other five villages have no or little consultation as there is a decrease in the percentage of respondents who appreciate the consultation done to them by the government.

4.0 FOCUS GROUP DISCUSSION

4.1 SERENGETI DISTRICT

4.1.1 Miseke and Bonchugu village

Miseke and Bonchugu villages in the Sedeko ward of Serengeti District had 24 participants, with 12 from each village. The group had four village leaders and the village natural resources committee. The group had a district game officer as well.

It was estimated that poaching had decreased by 75% during FGD by the attendants. The reason behind the decrease is that most individuals decided to stop poaching after different actors' efforts in tackling IWT were realized by the community. One of the participants said, "There was animosity between game rangers and villagers by 2018, but now we are all friends." This implies that there has been a decrease in poaching.

The Projects that in place at Miseke and Bonchugu villages

There are projects in place: -

- Grumeti Fund pays for school fee for the villagers kids, supported construction of water tank in the village
- TANAPA constructed charco dam (water reservoir) for livestock, they as well as support to the construction of dispensary
- Frankfurt Zoological Society supports conservation education, establishing a Community Conservation Bank (COCOBA) in groups where there are 6 groups already for entrepreneurship such as poultry farming, beekeeping, special anti poaching unit, SACCOS for individuals.
- AMREF supported construction of school washrooms/ toilets in the village
- Sustainable land use plan has been funded by KfW, FZS and TANAPA

The government recognizes community participation in laws and policies because:

For example, there was a conference regarding poaching and illegal wildlife trade (IWT) in the Western Serengeti National Park. The participants were district, ward and village leaders, with presenters being Grumeti Fund, TAWA, TANAPA, SEDREC, Lion Project, TAWIRI, etc. The presenters gave very informative conservation education and provided an opportunity to have questions and comments on the best way to combat poaching and the illegal wildlife trade. The emphasis of TAWA was on concession for the damage caused by problem animals, and participants got a chance to ask for clarification.

Community participation in conservation projects

Community members fully participate in the development projects such as

- In-kind participation in infrastructure development

- Grumeti Reserves employs youth as casual laborers including cleaning (slashing and sweeping)
- Other youth are employed as Village Game Scout (VGS) to prevent crops against problem animals
- Participation has now increased as everyone realizes the benefits of conservation

Comments and/ or recommendations from the group

- Community is asking for a support for flash light (torch), boots and Personal protection equipment for the VGS
- Support for the construction of classes and village office as the village is not currently having an office
- The electric fence initiated by Grumeti Fund is really helpful as the harvest was 20 kilograms per acre before the fence but now the harvest is more than 2000 kilograms. The community is asking for the support to extend the fence towards the remaining parts as the remaining part allows elephants to visit farms
- Community is asking for the market from their agricultural production such as chicken, vegetables, honey, eggs, etc. be purchased by Grumeti Reserves community as there is no market place in the village. This could be done by constructing a market in the village at a place where Grumeti Reserves community could access



Focal Group Discussion (FGD) at Miseke village

Photo credit: Boaz John, TNRF

4.1.2 Makundusi Village

Makundusi Village has the following results

- a. Animals are now coming closer to human beings compared to some years back such as before 2020. This implies that the poaching incidences is decreasing
- b. There are several projects in the village with attached conservation objectives. These are:
 - AMREF supported the water project.
 - Grumeti Reserves supports shallow wells, dams (assist communities not going near the protected areas for watering livestock avoiding depredation), infrastructure development
 - TNRF & WWF supported energy serving stoves leading to very little fuel wood consumption, livestock boma, beehives, dams
 - GIZ and TNRF supported Predator proof Bomas (enclosure) preventing livestock from depredation



Investments activities by TNRF and WWF to the communities, supporting livelihood activities against IWT and Human Wildlife Conflicts

Photo credit: Pendael Amos. TNRF

The said support by the organizations mentioned focus mostly to boost conservation by reducing Human Wildlife Conflicts (HWC) which for the past years it has caused killings of wildlife encouraging poaching; as the members stated:

“These wildlife destroy our crops and livestock, which make up our livelihood, for example a hyena can make someone poor in a single night, it can kill from 5 to 20 goats a night. In such a condition one will directly go hunt. The same applies to elephants that destroy our farms, acres of land crops can be damaged in a single night fall. Thus it caused many to turn to poaching and IWT. But through the support and different engagements we are experiencing now at least poaching and IWT is decreasing, after all we are also directly benefiting from our WMA (Ikona WMA).”

- c. **Community contribution in these projects include: -**

- Community members contributes 15% cash or in kind for the development projects particularly infrastructure such as chaco dams, livestock boma
- Community participates in development site selection through decision making meetings



Water Tank at Makundusi Village donated by conservation stakeholders

Photo credit: Boaz John, TNRF-Arusha, Tanzania

d. Comments/ recommendations

- There is a need for more chaco dams for livestock watering as this reduces depredation as natural rivers has a lot of predators
- Communities are asking for more beehives as they are interested in those projects if at all it happen that there is a donor
- Support for improved livestock breeds is also requested by the community such as sheep, chicken and cows. This is inline with fish farming as some community members are interested in aquaculture.
- There is still a problem of potable water for the community. Available wells are not enough to share with wildlife and livestock. The community is asking for the support to add some more wells and dams together with improved water sources. Water is mainly used for development activities such as brick making, irrigation, tree planting and car wash
- There is no cattle dip in the village. the community is asking for the support from donors to have one for villagers use
- Support for the tree planting project in the village including capacity development for the reforestation as the land is highly degraded

- Communities are used to grow traditional crops that attract wildlife such as elephants. They are therefore asking for the support for capacity development on alternative crops that are not preferred by elephants and/ or installation of electric fence which highly prevent crop damage from problem animals
- The Ikona Wildlife Management Area belongs to Makundusi village. They are therefore asking for the support of a vehicle which could be used by the VGS to chase problem animals. This is inline with the need for the support for Personal Protective Equipment (PPE) for the VGS including firearms
- The area produces both cash and food crops. The community is also asking for the support from the donor community for the installation of Small Processing Industries for meat, milk, crops etc. They are also asking for the support for establishment of Vocational Training Centre within the village.

4.1.3 Robanda Village

Focus group discussion (FGD) at Robanda had a total of 22 members both male and female, it had to have most participants because they also were to have a village meeting at the village offices. Despite this fact, the discussion was smooth.

The problem of poaching

- During the discussion members agreed on the fact that there is still poaching countrywide and the same applies to their village. Nevertheless incidents of poaching and illegal wildlife trade have declined both nationally and locally.
- The decline has resulted from a number of factor including ; the awareness on conservation that has risen among the local members
- Presence of Ikona WMA, thus Robanda being a member within the WMA has helped reduce poaching and IWT activities as the village is directly benefiting from conservation. For example, social services such as schools and health centers are built.
- Investments within the village land out tourism activities
- The government spreads awareness on conservation among the community.
- Presence of NGOs programs that support both conservation and livelihood within the community. For example TNRF and WWF programs on Beehives, predator proof Bomas and 10000 water liter tanks.

Poached wildlife

Wildlife mostly poached in the village includes wildebeest and zebra. These are consumed to meet both subsistence and commercial reasons.

Role of the community to stop poaching

The FDG members were positive on the role they play as a community in terms of combating poaching and IWT. Among reasons they mentioned include;

- Through their leadership the village raises awareness on the importance of conservation and disadvantages of poaching and illegal wildlife trade.
- Encouragement on forming entrepreneurship groups to support their livelihood instead of engaging themselves in poaching and Illegal Wildlife Trade (IWT). For example in Robanda there are beehive groups, who of recently have been supported with beehives by TNRF to create fences for both livelihood and discouraging elephants into village farms.
- Taking children is a way of behavior change, but also focusing on divergence of livelihood in the growing population.

Government consulting the community on poaching and illegal wildlife trade

The government does visit the village: One member said;

“ We can’t say the government does not come to consult us, it comes in directly; most times it comes when a big animal may be hit or when there is an attack to the livestock or farms though they delay. And most of the times through other stakeholders like you (TNRF), today you have the DGO with you, he represents the government.”

Through discussion most members supported that they are consulted by the government on issues related to poaching and IWT. The participants also agreed that in the near future more visits from the government will increase as the coordination is rising, therefore in a good way their home conservation for wildlife within their localities will raise.

Projects and NGOs on tackling poaching and Illegal Wildlife trade

The participants pointed out that; there are number of projects within their locality though most of them are not direct to combat poaching and illegal wildlife trade however they in directly discourage poaching and IWT. For example, climate change related projects that focus on improving the livelihood of the villagers through strengthening their means of economy. A project by TNRF and WWF which has successfully provided beehives, constructed predator proof bomas and water tanks. There are those by Grumeti and FZS that focus on reducing Human Wildlife Conflicts. These projects in a great deal have indirectly helped the village reduce poaching and IWT activities.

Comments: The FGD participants requested the following projects

- The Tanzanian government established licensed legal bush meat butchery in 2020 and hence projects on bush meat butchery
- The village requests for vehicles for their VGS to simplify patrol on the conserved

areas they manage.

- The village also wishes to have more projects on beehives and predator proof bomas.
- Modern animal husbandry projects
- Projects on fish farming (aquaculture)

4.2 Focus Group Discussion In Southern Ecological Circuit: Morogoro District

4.2.1 Mbwade and Bonye Villages

1. Poaching incidences and animals mostly hunted and why

a. Poaching is estimated to have decreased by 95% as stakeholder efforts in anti-poaching and law enforcement are highly successful. The number of arrested poachers has highly decreased in the village. There was no elephant visit in the village before 2020. Now there are a lot of elephants roaming within village land. Increased number of elephants implies that, it is true that poaching incidents have decreased

b. The problem of poaching remained with a group named VUVUZELA. This group is very dangerous as they even condemn and threaten the lives of village leaders. They have been taken to court where they were then released by the court. They are now a big problem in the village. They may kill up to 20 Impalas at once. They are selling bush meat in the market at local level. The animals mostly poached by this group include zebra, impala, wildebeest, and buffalo.

2. Role of community members is to condemn poachers particularly youth; they as well give them conservation education on benefits accrued through wildlife conservation. The other role is to punish poachers at village level and/ or take poachers to the police station and then to the court.

3. There have been no opportunities for entrepreneurship in the village since 2018. The village had some other projects such as a ginnery but has been closed. There were projects such as: -

- a. HIV/ AIDS supported by USAID
- b. Water project under Sweden and USAID – WARIDI program
- c. Construction of village Health Centre was supported by the Government
- d. Poultry farming project supported by CARE, TGNP and the government

4. Comments: The FGD participants requested the following projects

- a. Support for the irrigation program in the village
- b. Support for aquaculture program

4.2.3 Kisaki village

Back then poaching incidents have been highly broadcasted by the press but now (2020 -2021) there are very few press information in Tanzania on poaching implying that, the poaching has decreased in Tanzania. There is now a lot of elephants and lions roaming in the village, this means there are no poachers in Kisaki village. The Kisaki village community is as well involved in helping Nyerere National Park, Jukumu WMA and Selous Game Reserve rangers with information on problem animals by the time they cross the borders towards the village.

Why no or decreased poaching in Kisaki Village?

- Government has increased rangers and law enforcement officials who increased security to wildlife
- The incidences where poachers are just lost nowhere
- Presence of cell phones has made communication easier reporting poaching and illegal wildlife trade incidences
- Rangers were the first line poachers, now they are disciplined. Government campaign against poaching and strengthened anti-poaching and law enforcement task force which deals with rangers

Role of community in combating poaching and IWT

- Not all do attend general village meetings during a visit by wildlife officials. The present members have a role of taking message to the absentees
- Most community members are nowadays informers as there are phone numbers distributed to the community members reporting poaching and IWT incidences
- Community members tend to condemn themselves when there is an incident or scenario of poaching
- Poaching and IWT has reduced as some youth went for charcoal making and others went for farming as an alternative livelihood
- There is frequent video showing the fight between poachers and wildlife rangers. This includes arrest of poachers and being taken to court of law and finally being jailed. This is a lesson as to why people may not prefer poaching.

There is improved community consultation by the government because:

- Wildlife Rangers are now (2021) much more friendly compared to 2015
- Communities are consulted during development projects such as
 -  Beehives which were brought by Tanzania Elephant Foundation and CARE – TZ
 -  Poultry farming technology which was brought to the village by CARE – Tanzania

was participatory as well



Stigler's gorge project brought entrepreneurship project such as VICOBA



The sweet potatoes (Viazi Lishe) project was sponsored by TGNP



The government of Tanzania supported the following projects: -

1. Water supply (tap water)
2. Construction of Police Station and Health Centre
3. The Re-Grow project under World Bank
4. Supporting schools with desks, classrooms, etc

Comments/ Recommendation from the FGD members

- Establishment of urban land use for the Kisaki residents and others who would like to stay at Kisaki village.
- The government intends to establish a camp for the youth at Kisaki Hot spring to support their livelihoods
- There are some guest houses at Kisaki but there is still a need for more guest houses
- The Kisaki village has a beehive project in place. There are some more groups interested in installing more beehives. They are therefore asking for the sponsor/ donor who will support the beehive project for youth and women groups
- The Nyerere Anti-poaching unit to have sub-zone at Kisaki to control problem animals and TANAPA and/ or TAWA to pay the concession on time as the payment delays in most cases
- The JUKUMU Wildlife Management Area belongs to Kisaki village. They are therefore asking for the support of a vehicle which could be used by the VGS to chase problem animals. This is in line with the need for the support for Personal Protective Equipment (PPE) for the VGS including firearms

5.0 VIEW BY POLICY MAKERS ON COMMUNITY ENGAGEMENT IN TACKLING POACHING & IWT

Referring to views in 2019 on community engagement in tackling poaching, the policy makers provided a base to build upon understanding the nature and improvements on community engagement in tackling Illegal Wildlife Trade (IWT). Through the interview the field research leads were capable to meet with a number of policy makers including commissioners, DGO, game scouts and village leaders. Other police makers were sent questions as there was difficulty to access them due to their tight schedules, so the questions were administered through google forms, sharing them online. The research team is yet to get the responses. Below are their views on community engagement in tackling poaching and illegal wildlife trade on:

Current status of poaching and IWT locally and nationally

According to the policy makers the situation of poaching and IWT has declined to a great degree as compared to the past three to five years. This is evident locally and at a national level. For example, though there are cases concerning poaching and illegal wildlife trade, the cases are becoming fewer and fewer with time. At the local level bush meat was so scarce as compared to past years.

Poaching and IWT has also taken a new face, it is more on bush meat consumption, the trade on Ivory and Horns has reduced. Cases arising on Ivory and horns are not linked to new remains of animals, but rather to storage, for example; though not in the study sites, it has been evident in Longido district, Arusha where by school children at Matale Secondary school found hidden ivory tasks near a water source, they reported to the head of their school, who informed the DGO, thus it was collected for further investigation. The other cases include, someone having ivory for years and as a result of investigation he/ she is caught with it. For example cases on tasks and weapons caught in Morogoro district, which shows that tasks were not of recent. This was also reported in the Guardian newspaper.

Identifying and dealing with the syndicate of poaching and IWT as portrayed anti- poaching units. Consequently investigating the system of poachers that starts from;

- people within wildlife dispersal areas, unethical law enforcers, and other people who facilitate poaching
- illegal hunters (shooters); those who participate in actual killing.
- transporters/courier (brokers/communication links
- to those employed by the dealers, having direct communication with outside dealers.
- money launders/ dealers those who communicate with outside dealers.

It is through this system the government successfully managed to arrest 33,386 poachers in the past five years. ([Also in the news source](#)): The arrest has included ivory lords such as the queen of ivory (Yang Fengla) who was arrested and proved guilty of major success in reducing poaching and IWT.

Community Engagement Strategies used by Key Informants

- Unpaid voluntary community scouts composed to youth in the villages we visited
- Strengthening and supporting traditional norms and sanctions against IWT
- Paid in-kind community scouts
- Tourism through WMA
- Non-wildlife based enterprises developed
- Physical separation of people, livestock and wildlife using land use zoning
- Provision of community infrastructure such as school, dispensary, water supply etc
- Raising community awareness about wildlife crime, penalties and sanction even fines as pointed out by Makundusi village chairperson.
- Reactive measures to deal with problem animals

Role of local communities in tackling poaching and illegal wildlife trade

According to Micheal Mganda (head department) college of forestry and Wildlife management, Sokoine University of Agriculture (SUA) stated that the community is the center of combating poaching and IWT trade, thus

- Their 1st persons to meet first degree poachers (those that do the killing) sometimes they're visitors, members of the family, clans and even corrupt village leaders. Having access to base information they can play a role in providing information on poaching and IWT.
- The local communities are also known to customs and traditions related to poaching, especially those that hunt for bush meat, so besides being informers, when well trained, they act as awareness extremes within their localities.
- They live adjacent to protected areas, they are therefore the first group to witness poaching and IWT incidences
- Local communities are the primary stakeholders who face or meet opportunities and challenges against wildlife. They are therefore the ones with a bigger role in tackling poaching and IWT



Key format interview with the DGO of Serengeti at the right hand side

Photo credit: Boaz John, TNRF

The National policies, strategies and laws used in Anti-poaching

The Tanzania anti-poaching Strategy financed by the UNDP has already pointed out the importance of involving communities in tackling poaching and IWT. The Key Informants highly support the idea of community consultation about Poaching and illegal wildlife Trade because they highly believe that, the poachers live within the same community where the family he/ she lives is aware about it. It will therefore be easier to engage the community in tackling IWT. The other strategies include village meetings, use of posters, and through law enforcement

Development stakeholders of Serengeti District

- Four Season, Asilia, and Serena Lodges
- Grumeti Reserves and Fund
- Others include TNRF, TANAPA, WWF, and FZS

Strategies in place for tackling poaching and illegal wildlife trade

The Serengeti district is planning to formulate fifty (50) youth groups who will be assisting in the control of problem animals for the villages adjacent to protected areas. The Natural Resources department has already started the initial stages in preparation for a budget and other resources to be able to recruit these youth groups. The department has prepared a training program on the use of handheld devices such as mobile phones and/ or GPS as capacity development for the said youth groups. The department has also prepared warning signs for the alert on the places or trails used by problem animals such as elephants to avoid unnecessary loss of life

6.0 CONCLUSION AND RECOMMENDATION

Despite of a number of cases on poaching and IWT in the area of study, this endline survey suggests that community engagement on tackling Illegal Wildlife Trade has improved. The percentage at which the community understands and acknowledges the importance of wildlife for the community again is increasing. Most of the community members are now directly engaged in tackling poaching and IWT, thus some are informers and VGS. However most of the communities adjacent to the protected areas are still faced by number of challenges like climate change and destructive animals; which disrupt their livelihood. On high level concealment, poaching for bush meat is increasing at a large scale. And it is not only for sustenance but for also commercial reasons; poachers are now transporting bush meat to city centers for sale. This implies that with time the market for bush meat will keep on increasing, as persons who did not use it, will start consuming bush meat because of its availability and cheapness thus more kills of wildlife.

Wildlife to the surroundings of homesteads has been said to be increasing, common animals spotted include elephants, giraffes, antelopes, lions and hyenas. This increase has caused arise of Human Wildlife Conflict (HWC), on sources of water and pasture and more mostly on the destructive impacts caused by some wildlife like destruction of farm crops and the killing of livestock. The situation has accelerated the engagement of some family members particularly the youth on poaching and IWT as way to sustain their livelihood. There are number of measures currently on going to tackle the situation for example, the beehive fences, live electrical wire fences, and construction of predator proof bomas but at a small scale with minimal impact.

On the said facts, the following are therefore recommended;

- a) More awareness trainings are required to the community members adjacent to the national parks on the impacts of poaching and IWT plus the importance of wildlife conservation to the community as whole.
- b) Directly engaging the youth by supporting them to diversify to other forms of income generating activities. (The youth are the ones mostly said to be engaged in poaching and IWT).
- c) Different measures should be integrated to tackle HWC
- d) Studies should be done to come up with proven reasons as to why Wildlife is increasingly turning to human settlements whilst there is a large land area within the protected areas.

- e) Communities adjacent to the protected areas should fill the benefits of conserving wildlife whether directly or indirectly.

With this at hand the community will value wildlife and become the best ambassador against poaching and IWT in Tanzania.

REFERENCES

Ojoyi, M. M., Antwi-Agyei P., Mutanga O., Odindi J. and Abdel-Rahman E. M. 2015. An analysis of ecosystem vulnerability and management interventions in the Morogoro region landscapes, Tanzania. *Tropical Conservation Science* Vol.8 (3): 662-680. Available online: www.tropicalconservationscience.org

APPENDICES



The above photos indicate places that were visited for Focus Group Discussion and Key Informant Interview. Photo credit: Boaz John (TNRF – Arusha, Tanzania)

22nd Sept, 2021

Kumb: TNRF/IWT/ 1/09/2021

Mkurugenzi Mtendaji

Halmashauri ya Wilaya ya Serengeti

Mugumu.

Ndugu Mheshimiwa,

**YAH: KUFANYA TATHMINI YA USHIRIKISHWaji WA JAMII KUZUIA BIAHARA HARAMU YA
WANYAMA PORI CHINI YA MRADI WA ILLEGAL WILDLIFE TRADE (BIASHARA HARAMU YA
WANYAMA PORI)**

Kichwa cha habari hapo juu cha husika.

Mwaka 2019, tarehe 26-31 Machi, Tanzania Natural Resource Forum (TNRF) ilifanikiwa kukusanya taarifa za awali (baseline survey) kufatia mradi wa Illegal wildlife trade (Biashara Haramu ya wanyama pori) wenye lengo la kuonyesha namna jamii inavyoshirikishwa katika kuzuia uwindaji na biashara haramu ya wanyama pori kisheria, kisera na kiutendaji na pia namna secta za wanyama pori zinavyo tafsiri na kusimamia sheria kusika. Kupitia taarifa iliyopatikana katika vijiji vitano (Robanda, Park Nyigoti, Bonchugu, Misseke, Makundusi) na wadau wa uifadhi Mugumu, TNRF ina lengo la kupitia maeneo yale yale ya awali kukusanya taarifa juu ya hali ya sasa ya ushirikishwaji wa jamii katika kuzuia biashara haramu ya wanyama pori.

Jumuiko la Maliyasi Tanzania (TNRF) ni asasi ya kiraia yenye makao yake makuu mkoani Arusha ambao ni mtandao wa wanachama na wadau wanaofanya kazi ya utunzaji na uboreshaji wa rasilimali asili ikiwemo ardhi. Mojawapo ya kazi Jumuiko linazofanya ni kujengea uwezo jamii juu ya utawala na usimamizi bora wa rasilimali zao kwa ajili ya keleta maendeleo katika maeneo yao.

Kwa hii barua TNRF inaomba ushirikiano wa ofisi yako pamoja na uwepo wa Afisa wako wawanyama pori wakati wa ukusanyaji wa taarifa.

Wako katika ujenzi wa Taifa

Zakaria Faustin

Mkurugenzi Mtendaji -TNRF



22nd Sept, 2021

Kumb: TNRF/IWT/ 2/09/2021
Mkurugenzi Mtendaji

Halmashauri ya Wilaya ya Morogoro
Morogoro.

Ndugu Mheshimiwa,

**YAH: KUFANYA TATHMINI YA USHIRIKISHWaji WA JAMII KUZUIA BIAHARA HARAMU YA
WANYAMA PORI CHINI YA MRADI WA ILLEGAL WILDLIFE TRADE (BIAHARA HARAMU YA
WANYAMA PORI)**

Kichwa cha habari hapo juu cha husika.

Mwaka 2019, tarehe 8-12 Aprili Tanzania Natural Resource Forum (TNRF) ilifanikiwa kukusanya taarifa za awali (baseline survey) kufatia mradi wa illegal wildlife trade (Biashara Haramu ya wanyama pori) wenye lengo la kupnyesha namna jamii inavyoshirikishwa katika kuzuia uwindaji na biashara haramu ya wanyama pori kisheria, kiseria na kiutendaji na pia namna sekta za wanyama pori zinavyo tafsiri na kusimamia sheria kusika. Kupitia taarifa iliyopatikana katika vijiji vitatu (Bonye, Mbwade na Kisaki) na wadau wa uhifadhi Morogoro, TNRF ina lengo la kupitia maeneo yale yale ya awali kukusanya taarifa juu ya hali ya sasa juu ya ushirikishwaji wa jamii katika kuzuia biashara haramu ya wanyama pori.

Jumuiko la Maliasili Tanzania (TNRF) ni asasi ya kiraia yenye makao yake makuu mkoani Arusha ambao ni mtandao wa wanachama na wadau wanaofanya kazi ya utunzaji na uboreshaji wa rasilimali asili ikiwemo ardhi. Mojawapo ya kazi Jumuiko linazofanya ni kujengea uwezo jamii juu ya utawala na usimamizi bora wa rasilimali zao kwa ajili ya kuleta maendeleo katika maeneo yao.

Kwa hii barua TNRF inaomba ushirikiano wa ofisi yako pamoja na uwepo wa Afisa wako wa wanyama pori wakati wa ukusanyaji wa taarifa.

Wako katika ujenzi wa Taifa


Zakaria Faustin

Mkurugenzi Mtendaji





Jumuiko la Maliasili Tanzania
Tanzania Natural Resource Forum

IWT ENDLINE SURVEY AND FRAMEWORK PLAN



IWT ENDLINE SURVEY AND FRAMEWORK PLAN

Date	Districts & Villages	Activity	Responsible	Households/interviewee	Comments
23 rd Sept	N/A	Travel day to Serengeti	Evaluation team	N/A	Staff to travel to Serengeti.
23 rd Sept	N/A	Orientation on the data collection tools, pre testing and discussions Serengeti district	Evaluation team	N/A	Tool pretest by the evaluation team for more improvement before going to the field.
24 th Sept	Bonjuku	Courtesy call Beginning of household interview	Evaluation team	50 households	Household surveys
		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.



IWT ENDLINE SURVEY AND FRAMEWORK PLAN

	Serengeti	KI-interviews	Field lead researcher	District Game officer, Ikona WMA secretary and chairperson	N/A
24 th Sept	Miseke	household interview	Evaluation team	60 households	Household surveys
		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
25 th Sept	Park Nyagoti	household interview	Evaluation team	31 households	Household surveys
		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
26 th Sept	Makundusi	household interview	Evaluation team	80 households	Household surveys



IWT ENDLINE SURVEY AND FRAMEWORK PLAN

		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
	Serengeti	KI-interviews	Field lead researcher	Grumet fund and Frunk froot Zoology Society	N/A
27 th Sept	Robanda	household interview	Evaluation team	42 households	Household surveys
		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
28 th Sept	Travel day to Morogoro	Evaluation team	N/A	Staff to travel to Morogoro.	Travel day to Morogoro



IWT ENDLINE SURVEY AND FRAMEWORK PLAN

29 th Sept	N/A	Orientation on the data collection tools, pre testing and discussions with enumerators Morogoro district	Evaluation team	N/A	Tool pretest by the evaluation team before going to the field.
	Morogoro	KI-interviews	Field lead researcher	TAWA	N/A
30 th -31 st Sept	Bonye	household interview	Evaluation team	120 households	Household surveys
		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
1 st -2 nd Oct	Bwade	household interview	Evaluation team	181 households	Household surveys



IWT ENDLINE SURVEY AND FRAMEWORK PLAN

		FGDs interviews	Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
3 rd -4 th Oct	Kisaki	household interview /FGDs interviews	Evaluation team	118 households	Household surveys
			Field lead researcher	study discussions group members, consisting at least 9-12 group members with all genders and age groups from 19-60+	Treatment and control groups for comparison purposes.
5 th Oct	Travel day to Dodoma	Evaluation team	Evaluation team	Staff to travel to Dodoma.	Travel day to Dodoma
6 th - 9 th Oct	Dodoma	Key format interview	Evaluation team	Minister's office for natural resources and tourism, Anti poaching team, TAWIRI, TANAPA	TNRF to discuss with anti poaching team, director WD,TAWA on IWT framework



IWT ENDLINE SURVEY AND FRAMEWORK PLAN

10 th Oct Traveling Destinatio n	Travel day to Dodoma	Evaluation team	Evaluation team	Staff to travel to Dodoma.	Travel day to Dodoma
11 th -13 Oct ,2021	TNRF offices	Evaluation Report is shared	Evaluation team	N/A	The team will have 3 days working data review, cleaning, analysis and report writing. At the specified date the team will come with the first draft of evaluation report.

Comments on the end line survey plan

- The end line survey will use the questioners shared but it will opt to use ODK collect to simplify data collection, analysis and reporting
- Enumerators from districts (Serengeti and Morogoro to be surveyed) will be engaged during data collection, hence they are known to these villages.



Jumuiko la Maliasili Tanzania
Tanzania Natural Resource Forum

IWT ENDLINE SURVEY AND FRAMEWORK PLAN

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