WILDLIFE WORKS EPZ

Community Evaluation

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**List of abbreviations**

<table>
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<th>Description</th>
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<tbody>
<tr>
<td>WW</td>
<td>Wildlife Works</td>
</tr>
<tr>
<td>RWS</td>
<td>Rukinga Wildlife Sanctuary</td>
</tr>
<tr>
<td>KWS</td>
<td>Kenya Wildlife Service</td>
</tr>
<tr>
<td>WV</td>
<td>World Vision</td>
</tr>
<tr>
<td>TCA</td>
<td>Tsavo Conservation Area</td>
</tr>
<tr>
<td>TDC</td>
<td>Taita Discovery Centre</td>
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Introduction

The goal of Wildlife Works is the conservation of wildlife and nature on Ruckinga Ranch and the surrounding area. To let the community benefit and to involve them, several projects are carried out. The area is threatened by the excessive use of natural resources by the local community. To oppose this depletion WW offered an economic alternative in the shape of income generation.

This study is carried out to determine whether WW is able to create a viable economic alternative to the utilization of natural resources.

In order to set the strategy for future projects this study will also focus on the questions what the community thinks about WW and what WW can do for the community in the future. This study is carried out for the WW management and everyone interested.

First the results will be displayed, from that a general and objective analysis will be made. Out of all the gathered information clear recommendations will be made.

This study is performed with thanks to Rob Dodson, Grace Ndigwa and the translators Jerusha and James.
Methodology

The purpose of this study is to find the social and economical impact WW has on the communities and to evaluate whether they are able to create a viable economical alternative to the use of natural recourses. Sub-objectives are to acquire knowledge on what the community thinks about WW and about what WW can do for the community in the future. These aims will be addressed via data collection and analysis. The data collection method used is a survey with a representative part of the population of the villages Maungu, Bondeni, Itinyi, Marungu and Kale, and the Wildlife Works staff.

In order to define the surveys questionnaire the key areas of WW’s influence had to been clarified. This was done through a list containing different subjects on which individuals had to indicate what aspects they thought had changed because of WW. With this knowledge about what areas are most influenced by WW and background information of WW activities, the subjects of the questionnaire could be set. The questionnaire is sampled several times and adjustments were made. The survey should incorporate all the changes made by WW, both negative and positive, and the local circumstances such as seasonality and culture. This survey serves as a basic research of the area. For that we explore changes brought about by WW using surveys which are broader than the original scope of the organisation involving aspects like water, sanitation and food aid e.g.

The approach used is semi-random. Due to the lack of good maps and of the distribution of people throughout the area, it was not possible to use completely random sampling. To perform the survey as random as possible houses were attained randomly in each village trying to cover the whole village. To gain a broad view and opinion of the respondents it was decided to cover the different stakeholders, like the businessmen, the housewife’s, farmers, chiefs, schools, men and women, old and young, non-randomly so to achieve a good overview of the impact of WW. The goal was to include all the relevant groups, which means direct beneficiaries, the excluded and drop-out groups. Besides the survey in the villages, interviews were done with the WW staff to be able to compare between employees and non-employees.

The sample taken should cover 10% of the inhabitants of each village. The villages surveyed are displayed below:

<table>
<thead>
<tr>
<th>Village name</th>
<th>Population</th>
<th>Distance from WW</th>
<th>Distance from RWS nearest boundry*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maungu</td>
<td>2050</td>
<td>0,5 Km</td>
<td>0,5 Km</td>
</tr>
<tr>
<td>Bondeni</td>
<td>400/500</td>
<td>2 Km</td>
<td>1 Km</td>
</tr>
<tr>
<td>Itinyi</td>
<td>1007</td>
<td>4 Km</td>
<td>2 Km</td>
</tr>
<tr>
<td>Marungu</td>
<td>2512</td>
<td>8 Km</td>
<td>4 Km</td>
</tr>
<tr>
<td>Kale</td>
<td>1171</td>
<td>10 Km</td>
<td>5 Km</td>
</tr>
</tbody>
</table>

*Figuur 1 Official Government figures supplied by the Chiefs of Marungu and Kasigau locations, 2001

*Note: Distance from the sanctuary boundary is estimated from the trading centre within a village, which is normally close to the village school and church. In many cases the villages’ farms stretch to the Rukinga Wildlife Sanctuary boundary.
The research population covers about 100 individuals including the communities as well as the WW staff. Change at the level of the individual, the household and the village will be dealt with. From the results recommendations for improvement per village can then be made.

Several constraints could affect the data collection that may include topography, number of households, language and time limitation. These limitations are taken into consideration and will be dealt with as good as possible. Another limitation which should be kept in mind with the analysis is the climate. Last couple of years the rainfall was insufficient and the yields low, this year was a good year so people might be positively influenced.

To come to clear analysis and recommendations all results will be cross-checked whether the change can be appointed to WW or to a different factor.
Results

Below are the results of the questionnaire displayed in clear graphs and analysis for clarification. Every respondent but one was familiar with Wildlife Works and most of them were known with the WW projects. In total 99 interviews were executed, of which 19 were with Wildlife Works employees.

General

Q2. Age of the respondent

![Bar chart showing age distribution]

Q3. Gender of the respondent

![Pie chart showing gender distribution]
During the interview we selected semi-random and purposely looked for both men and women to be involved. That it would be this fifty-fifty was not expected, one day there were more men and the next day more women interviewed.

Q4. Village of the respondent

![Village of Respondent Chart]

Q5. How long have you been living in your village?

The individuals interviewed lived in the same village for an average of 20.3 years. The villages are traditional and it is common to live in the same area for a long time. Explanation can be found in the social context. It is common to look after your parents when they are aged and to take care of family members in need. Therefore people stick together and seldom feel the urge to move somewhere else. The young women sometimes move away when they get married though. When people relocate, their motive can be a better economical perspective, family or employment possibilities.
Q6. Marital status

Q7. What is the composition of your household?

A household often includes not only parents and their children but also the grandparents, aunts, uncles and other relatives who live under the same roof. In this question all persons who live with the respondent’s in the same house are included. This does not involve visitors or individuals who stay only for a short period.
The research results show that an average household consist of 6.6 persons.

Q8. Do you receive any direct/indirect support from WW?

Direct: Through employment, school support or other benefits from projects. Other direct support involves bills of the hospital paid by WW and sponsorship for orphans.
Indirect: Through the (businesses) money spend by WW employees
Regarding the graphs shown you must keep in mind that only a small percentage of the respondents have shops and direct sale to WW employees. The ones with shops were specifically asked if they have customers from WW.

**Q9. Do any of the other household members benefit from WW?**

Other household members can benefit via employment, school support and other involvement in projects.
Q10. What tribe are you?

The graph represents the composition of the communities regarding the tribes. As seen the area is mostly Taita but over the years more different tribes have come to the area which leads to a mixture of tribes.

Q11. What is your profession?
Many people have multiple jobs. They work in the shamba\textsuperscript{1} but also have a job or businesses. Or they have a job as for example carpenter but also help in the hotel owned by relatives. The answers recorded are the ones the responded sees as its job. Often when people are jobless but they do have a shamba they automatically refer to themselves as a farmer.

It also occurs that one is jobless at the moment but answers that he is a carpenter; this is because the majority are not contract workers and not fulltime workers. Like the craftsmen might get an assignment now and then, and the ones involved in tourism have more work in the high season. This means that unemployment rates are much higher then displayed.

Craftsmen involve carpenters, shoemakers, mechanics and construction workers. Tourism involves tourist guides, photographers and Rock Side Camp\textsuperscript{2} employees. Business involves retail, selling of livestock and anything that the respondent refers to as business.

Q12. Are you employed by WW?

![Bar chart showing employment status](chart.png)

Of the 99 persons interviewed, 19 respondents are employed at WW. However these respondents are not randomly found in the villages but deliberately picked at WW to include them in the data and to be able to compare the data between the WW employees and not WW employees.

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\textsuperscript{1} Shamba is a smallholders farm from which the people live, almost everyone has a shamba

\textsuperscript{2} Rock Side Camp is a tourist lodge near Kale
Q13. In what activities organized by WW have you been involved?

The majority of the respondents from Maungu have participated in the cleaning day in Maungu. Also nearly every one of the employees have been involved in helping during that day. With construction work is meant the work that the community did with the reconstruction of the schools. This includes Itinyi and Kale primary school and Marungu secondary school.

Other includes: Keeping records of human/wildlife conflicts and report to WW, seek for students who need sponsoring together with WW and the activities which the students who are sponsored do.

Standard of living

Q14. What kind of house do you live in?

We asked the interviewees to give a description of the house they live in. The majority lives in houses with mud walls and an iron sheet roof. The richer ones have brick walls or even
cement walls and floors. The poorest live in houses with mud walls and a grass thatched roof. This traditional way of building people sometimes prefer to use above the bricks and iron sheets. But it is now a days more common to have a house with iron sheets, which is also a sign of economical development in the area. The iron sheets are more expensive and only accessible for the ones who can afford it. The appearance of more iron sheets houses and brick houses indicates a development of welfare in the region.

On average the respondent’s house consist of 2.8 rooms.

Q15. Do you have access to electricity at home?

The access to electricity in the surveyed villages is inadequate. Maungu and Itinyi are connected to the electricity network so households in those villages are able to have electricity. Marungu and Kale however are not connected to the network and no one has access to electricity.

All the households, even with electricity, use paraffin to acquire light in the evenings. Sometimes the respondents use batteries for a flash light or a radio. Occasionally households have a solar battery. For many it is too expensive to get connected to the electricity. It cost about 16.000 shilling, which is sometimes more then people earn in a year.
Q16. Do you have access to water at home?

Of all households 34.3 % has permanent access to water through a water pipe. The majority has to buy from the neighbours or even from another village. Households in both Maungu and Itinyi have the possibility to get connected to the water supply system. In those villages people have a permanent supply or buy from the neighbours. Marungu and Kale however lack access to water. There is a pipeline between Marungu and Itinyi but the pump broke down a year ago. Inhabitants of Marungu and Kale nevertheless have to go all the way to Itinyi to fetch water.

The 34.3 % who have a permanent supply think of the reliability of the supply as average to poor.
The 34.3% who have a permanent supply think of the quality of the water as good.

**Q17. Has the water supply changed the past 3 years?**

As you can observe from the answers given by the respondents, the answer is different every time and depends on the personal situation and the location of the household. On one side of Maungu one could say the water supply has improved on the other side of Maungu they might say that the water supply has decreased.

The communities Marungu and Kale suffer from water shortage due to an inferior water supply system which is at the moment broken. Some households do have a water pipe connection but still have to fetch the water in another village. The respondents in those two villages answered yes on this question since for them the water supply has changed in a very negative way.

*Answers given by respondents why the supply has changed:*
- Last 3 years not enough water, but now there is.
- There is not always enough water at all times for all the people. Before there were less taps and people.
- Water pipe to the house was stolen
- Sometimes water pipes are broken
- Was insufficient, but now there is enough for everyone
-Gained a permanent connection at the house but there is not enough pressure in the main pipe to get the water to the house

Q18. What kind of sanitation is present?

![Sanitation Chart]

The one person who obtains a shower with cold water is a very rich person, every one else uses basins.

Q19. Has the sanitation changed the past 3 years?

For almost everyone the sanitation changed but not in a significant way. After 3 years it happens that a pit latrine is full or has collapsed so they have to build a new one. Or in the past households used the forests but now have a pit latrine. Concerning the kind of shower no changes occurred the past 3 years.
None of the changes are because of Wildlife Works.
Q20. What is the number of meals you have per day?

Most of the respondents have three meals per day. Some have only two meals, which can be for several reasons. Some don’t need any more food then only 2 meals a day and some don’t have the money for it.

Q21. Do you receive food aid?

Almost 43 % of the respondents sometimes receive food aid. The food aid is given out during a bad rain season when the agricultural production is low and not sufficient to have enough food during the next dry season. Last rain season the rains were good enough and no one received food aid. We included every one who received food aid last year when the rains were poor. Some even received food aid in the beginning of this year, January/February, when there was not enough food during the dry season.

We did not include the children who receive food aid at school; we included only the food aid spread out amongst the households.

Many respondents indicated that the rainfall gets worse these years and that ’the dry seasons gets longer. When this trend continues the next years it might have severe consequences for the communities.
Q21.1 By whom is the food aid provided?

The food is provided by the Red Cross who hand it over to World Vision who distributes it through the area in cooperation with the local chiefs.

Q22. & Q23. Changes in quality of life

The quality of the respondent’s life has mostly improved over the past three years. Some saw their lives as very poor or poor, now after three years more people see their live as average. This indicates an improvement in the living standard and welfare of the community. The personal wellbeing and the economical development are close related. When one has no job or not enough money to feed the family live is considered to be very hard. Of course the outcome is mostly influenced by personal circumstances like illness and death.

Answers given by the respondents why the quality in life has changed:
- Life is now more expensive because of high economy
- For businessmen the high economy is positive because there are more customers
- Because the population of Maungu is increasing the competition is getting higher, more businesses are started and more difficult to get customers
- Wife died, now old and alone
- Husband or wife is working now so income has increased
- Change of work
- Some came from big cities like Mombasa and like, or don’t like, the rural area
- Death of children
- In the past there was a food shortage so life is better now
- Depends much on having a job=food
- Husband married a second wife=bad! (according to the respondent)
- Salary is less so living standard decreased
- Because the dry season gets longer each year so more food shortage
- Primary school is free now so more money available for other purposes

Economics

Q24. Do you have any agricultural production? If yes, what products and how much?

As expected the majority of the community is has agricultural production. However the dependency on the agricultural gets less since it gets more common for the men to have a job. Even those who have a fulltime job have work on the shamba during the rain season. The food crop mainly grown is maize. Furthermore the mainly grown crops are (cow) peas, beans and green grams. Fruit production is not seen as a considerable amount and was not included in the answers the farmers gave. Almost everything the farmer grows is for own consumption and goes in stock for the dry season.

The price of 1 bag of maize fluctuates from 700 to 1500 schilling. One bag consists of 90 kg.
Don’t be mistaken about this graph, it only shows the production of the ones who do grow maize, peas and beans. It doesn’t give a reflecting of the number of people who don’t grow them.

Information about the maize production:

<table>
<thead>
<tr>
<th>Bags of maize</th>
<th>N Valid</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Missing</td>
<td>29</td>
</tr>
<tr>
<td>Mean</td>
<td>10.0357</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>9.0000</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>10.00</td>
<td></td>
</tr>
</tbody>
</table>

From the respondents 70 persons grew maize and knew the amount of produce. An average farmer grows 10 bags of maize.

Information about the peas production:

<table>
<thead>
<tr>
<th>Bags of peas</th>
<th>N Valid</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Missing</td>
<td>81</td>
</tr>
<tr>
<td>Mean</td>
<td>1.4450</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

From the respondents only 18 persons grew peas and knew the amount of produce. An average farmer grows 1.4 bags of peas. When a farmer has peas production it is only a small amount, mostly not even one bag.

Information about the beans production:

<table>
<thead>
<tr>
<th>Bags of beans</th>
<th>N Valid</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Missing</td>
<td>96</td>
</tr>
<tr>
<td>Mean</td>
<td>1.0033</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>0.01(a)</td>
<td></td>
</tr>
</tbody>
</table>

From the respondents only 3 persons grew beans and knew the amount of produce. An average farmer grows one bag of beans. When a farmer has beans production it is only a small amount, mostly not even one bag.

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3 value at which half of the cases is above and half is below
4 value with biggest amount of cases
Q25. & 26. Personal income during rain and dry season

The average personal income during the rain season is 4189.79 shilling and during the dry season 4455.65 shilling.
The occasional workers earn more during the rain season for the reason that at that moment there is loads of work to do in the shamba’s and farmers hire people during that period. The business men have more income during the dry season when households suffer food shortage and sales from their businesses go up.

In the graph above is shown that although the average is around 4200 shilling most people earn a smaller amount. Half of the respondents earn below 2600 shilling per month in the rain season and 3000 in the dry season.
A few cases with a high income can have a big effect on the mean but little on the median, making the median a better indicator for the central tendency.
Q27. Has your income increased compared to 3 years ago? If yes, what is the reason for this?

Like the whole economy of Kenya is growing, also the local economy and salaries are increasing. For the Wildlife Works employees the salary increases each year with 10%.

Reasons given by the respondents for the increase in income:
- Started own business or renting rooms now
- For the people who are employed by WW the income increases yearly with 10 %
- Changed job
- Got employed by WW or is employed by WW and salary increases each year
- More customers for their services
- More work as casual worker in the sjamba’s

Q28. & 29. Income of the household during rain and dry season

The average income of the household during the rain season is 6474.53 shilling and during the dry season 6537.18 shilling. The income of the household is more or equal to the personal income. Depending on how many household members contribute to the joint income and how much they add.

The region is traditional and it is usual that the wife stays at home and takes care of the children and the household, and the man is engaged with earning the money. Although it gets more accepted nowadays when a wife is employed.
The graph above shows that even though the average is around 6500 shilling, most people earn less. Half of the respondent's have a household income below 5000 during rain and dry season.

Q30. Has the income of your household increased compared to 3 years ago? If yes, what is the reason for this?

It can occur that even when the personal income has increased, the total income of the household has decreased. Because it depends on the entire household and maybe the husband or wife lost the job.

Reasons given by the respondents for the increase in income of the household:
- Better business now
- Started new business or renting rooms
- Husband or wife has a job now or earns more
- Better rainfall (better agricultural production and more for sale)
Q31. How much do you spend on the cost of living?

The cost of living includes food, house rent, electricity, water, clothes, school fees, taxes, bank account costs (when they might have that) etc. Basically all costs they can have in a month time.

During the rain season the amount spend is low because people tend to feed themselves from the shamba. At the end of the dry season the cost of living is higher because of empty stocks. We took the average of what they spend in the rain season and dry season.

Q32. How much money do you have left monthly for savings?

More then 60 % has per month nothing left for savings. When people do save money this most of the times goes through merry-go-rounds or saving programs of community groups, or is invest in livestock to secure money for the future.
Summary Economics

Economics is a complicated topic to research in a rural livelihood. People perceive income from multiple income sources like a job, the shamba, livestock and family. The social relations are tight and for example, the husband gives money to his wife, old mother and unemployed brother to support them. This makes it more complex to see how much the income of the household is and how much they spend on the cost of living. The biggest differences lie in the seasons; we included this in the questions to get a broad view of the economics as possible.

Often you see a difference in what the respondents give as answer on their income and on what they spend. Sometimes the amount they spend is higher then the income. This cap is filled with income they get from relatives, from selling livestock when money is needed and occasional jobs they can get.

It can also be, as seen in the graph, that the income is higher then what they spend. The answer the respondent gives is an estimated answer, that is were differences occur. It might be that besides what they spend on the cost of living for themselves, that they give money to relatives or persons in need.
**Education**

**Q33. Do you think that WW made a change to the children education?**

Most of the respondents know about the education projects of WW and see this as positive. We asked if WW made a change in the education in general, not specifically for the own children. The interviewees could also respond with 'yes, a negative change', but since none gave this answer it not included in the graph.

*Answers given by the respondent:*
- Because of supporting children and providing school supplies like books and writing material
- Does not affect own children but hears from the neighbours about positive change
- Yes, WW even planted trees at the school
- Yes, WW provided desks and books
- Yes, building of the schools

**Q34. Knowledge**

*Answers given by the respondent:*
- Now planting trees
- Now knows how to live with the wildlife and how to teach the community to live with the wildlife
- WW employees gained knowledge of their working field, like tailoring, machines or wildlife.
- WW Employees got 3 month training in tailoring
- More working experience because of WW
- Yes, learned about the community working together
- Didn’t make a change because they didn’t learnt anything from WW

**Conservation**

**Q35. Knowledge of conservation issues**

If you compare this graph with the previous one I can only say that people don’t know what they know until you specifically ask them.

*Answers given by the respondent:*
- Yes, no poaching, no tree cutting and no charcoal burning
- Yes, to reduce soil erosion at the shamba people build dams to reduce the speed of the water
- Yes, through the cinema’s
- Yes, about planting trees

**Q36. Have you noticed an increase in wildlife number around your village?**
According to the majority of the respondents the number of wildlife has increased over the past 3 years. Some interviewees responded with no because, as they say, there are now fewer animals because they are controlled by WW to stay at Ruckinga Ranch.

**Answers given by the respondents:**
- Between Marassi and Itinyi hill is less wildlife but other side of the Kasigau road there is an increase
- More baboons and elephants
- More elephants and lions
- More dikdiks, monkeys and baboons
- More Buffalo, Hyena and baboon
- In Sasenyi increased
- In the villages there is not much wildlife but on the hills they have increased
- Wildlife is less because they are controlled by the rangers

In this graph the answers per village are presented. As seen in all villages the majority answered yes.
Q37. Has WW made a change in the human/wildlife conflict by encouraging an increase in the number of wildlife?

Answers given by the respondents:
- Yes, positive change, the WW rangers keep the animals in Ruckinga
- During the rain season there is conflict, not during the dry season
- Positive change, now the rangers control the wildlife there is less conflict
- Yes, through giving out the chili plants
- Prevention is better then curing the problem afterwards. Although WW helps people whose crops are most of the times already destroyed
- No, cow was eaten but the rangers didn’t came and the owner was not compensated
- Yes, when there were buffalo’s WW and KWS helped

Q38. Should WW be trying to increase wildlife numbers?

Answers given by the respondents:
- No because they will kill us.
- Can be as long as WW puts an electrical fence
- Only if they are controlled
- Yes it is heritage
- Yes, to attract more tourists and to improve the economy of Kenya
-No, lion eats livestock and elephant destroy crops
-Yes, as long as there is enough capacity among the rangers to control them
-Yes they should be increased to attract tourism but not the elephants and lions
-Yes, as long as they keep them in the national park and RR
-Yes because with more wildlife there are more jobs
-Yes, when the number of wildlife is increased wildlife works will become famous and the salary will go up
-Yes but the rangers should keep the animals in the forest
-Yes, but when the animals are increased WW should employ more rangers to control them
-Yes, because then the tourist come and they can sponsor more children

Q39. Do you contribute to conservation of trees or wildlife yourself?

Answers given by the respondents:
-Planting trees
-Counting the human/wildlife conflict
-Report poaching to Wildlife Works
-Teach community how to live with wildlife
-Try to plant trees but because of the water problem not always succeed
-Through educating other people
-Stopped cutting trees
-Through wildlife protection as a ranger
-Yes, don’t eat wild meat anymore
-Prevent tree cutting
-Yes plant trees, but there are some insects which destroy the trees

Almost everyone replied that they contribute to conservation. Most of them do via planting trees but they also explained that it was hard because of the soil and the lack of water.
Q40. Do you think that the use of game meat has reduced because of Wildlife Works?

In the past when people just started living in the area everything was bush and people did a lot of poaching. Nowadays the use of game meat is minimal due to the cinemas about the risks of game meat performed by Born Free in cooperation with Wildlife Works. Another reason it has reduced is because of the rangers at Ruckinga who will report anyone they find poaching. The locals have shifted their diets from game meat to the use of livestock. Therefore and because of the economic development the amount of livestock increases.

*Answers given by the respondents:*
- People in the area still use game meat. Some have a permit to shoot wildlife but not to sell
- Yes because the rangers stop it and take away the snares
- The rangers are in the forest so the poachers don’t dare to go there
- Yes, also because poachers fear being jailed
- Yes has reduced, people rely more on livestock now
Community

Q41. Has the number of services/shops in your village increased over the past three years? If yes, what is the reason for this change?

Answers given by the respondents:
- The economy is growing and more shops are started
- Some shops disappear and others and others are started
- The community is growing so more customers and more shops

Q42. Have WW activities made your community to work together more?

Answers given by the respondents:
- In the beginning the community didn’t report snaring and poaching but now they do
- Yes, before the community didn’t know how to keep the town clean, now they do that together
- Yes, WW gave people the advice to work together
- No, the community still doesn’t work together
Q43. Do you think that WW and the community work together in a proper way?

Answers given by the respondents:
- No, sometimes not. When someone takes firewood from RR or takes the livestock there they get arrested. But WW does let the wildlife in the community. It might be that someone doesn’t know the borders and goes there by accident.
- Yes, WW starts projects to assist the community
- In Sasenyi in the beginning people were against the view of WW but now they also cooperate
- Yes because the community reports poaching and the use of game meat
- No, because the animals come to the shamba’s
- No, WW does not care about people being harmed by wildlife
- Yes, always when there is work to do the community and WW do it together

Q43.1 How can WW improve the cooperation between WW and the community?

Answers given by the respondents:
- Reduce poverty
- Work together, for example with the schools, half of the labour should be contributed by the community
- Give out free trees instead of people paying for it
- Provide electricity. When wildlife see the light they won’t easily destroy crops.
- Provide water tank
- Help with constructing more classrooms for Marungu secondary school
- Employ people from all villages, not only Maungu
- Organize a community day like the cleaning of Maungu also in other villages
- Build more schools
- Provide employment for the youth
- Provide enough protection against the wild animals
- Assist those who got injured from wildlife
- Organize a meeting between the community and WW and discuss the possibilities of fencing the border and future projects
- Sponsor the women’s groups
- Keep seminars about how WW benefits the community and to educate the community about for example wildlife
- There should be compensation in case when a human or livestock is attacked

Q44. Has WW made a change in the men-women relations?

![Pie chart showing the percentage of respondents who answered yes or no to the question of whether WW made a change in the men-women relations.

Answers given by the respondents:
- Yes, through providing sports who are played by both men and women
- No, for the youth it is changing though
- Yes, both men and women work at Wildlife Works

Future

Q45. What can WW do for you in the future to improve your lives?

The first answer every interviewee gave on this question was: employ me, or employ anyone from my family. Then they started thinking what they would like more and what they think would help the community.

Answers given by the respondents:
- Make sure that there are no human/wildlife conflicts at the farm. Respond on phone calls for help when there is an elephant at the farm.
- Provide loans
- Need money to eat
- Give trees to plant
- Give children good education
- Teach people how they can get a better income
- Create more job opportunities
- WW promised to employ many children from this area and they should do what they have promised
- Help community with conservation
- Help with sufficient supply of water
- Help with setting up a nursery for trees
- Expand and employ more people in the area
- Help build a house so they can rent for money
- Set up a *politechnical* school for computer training, mechanics etc
- Give out free seedlings to plant
- Sponsor the needy children in school
- Have more meetings together with the community
- Train the community how to improve agricultural production, because that is what people depend on
- Setting up more projects for the community
- Increase the number of children who get picked by WW for sponsoring and education
- To include more people and purchase people to do conservation, WW should give out trees and advise on farming
- Provide business equipment/knowledge
- Involve some of the churches, look for ways WW can help the church and how the churches can help WW
- Teach community how to live with wildlife
- WW should teach people how to chase animals away from the shamba without harming it
- Show the community what is the best way to plant and grow the trees.
- It is very good that WW helps children in secondary school but they should also try to help get children into college or university.
- Try to establish more food security for the community
- Provide electricity
- More orders for the clothing factory for more overtime for more money
- Build a research centre like TDC to attract more people
- Create more awareness about conservation and WW
- Organize meetings with the chief and the community about conservation
- Provide more medical facilities like hospitals
- Dig some boreholes
- Make the trees cheaper so even the poorest can afford trees
- Arrange seminars to talk about wildlife
- Finish Marungu secondary school
- Help the orphans
- Assist the community of Marungu to get water there
- Fence the area so the animals cannot go into the shamba’s
- Improve infrastructure
- Establish a loan group for women so for example they can start an aloe vera farm
- Start projects for the youth like a greenhouse project which they can run and have profit from
- Grow chili plants on the borders of RR to keep the elephants away
- Sponsor all orphans
- Build some water tanks to reduce the water problem in Kale and Marungu
Q46. What are for you the advantages and disadvantages of WW?

Of all respondents 55.56% said that there were no disadvantages about Wildlife Works. This was not specifically asked but they indicated it themselves when we asked about the disadvantages.

Answers given by the respondents:

Advantages:
- WW helps when animals show up
- WW is providing employment for community
- WW pays school fees
- When money is needed when one dies they sometimes pays if the people can’t pay for the funeral themselves.
- Educate children with high marks (good performance)
- Boost economy \(\rightarrow\) more wildlife, more tourists
- Before people used to kill animals but now people stopped because of WW
- Educate children about wildlife
- No conflicts
- WW plant trees
- WW saves people from problems
- WW employs people from the area so less criminals
- Free education (sponsorship)
- WW keeps wildlife away from the village
- WW works together with the community
- WW helps to achieve what the community needs at the government, together with the whole community
- Protection from elephants
- WW people come and spend money at the bar/business
- Tree nursery is the only one in Maungu
- Poverty in the area is less
- If a human/wildlife conflict is reported WW rangers comes and help
- Community gained cooperativeness and gets profit
-If foreigners come to WW some money also goes to the community
-When a family member suddenly gets sick WW lent the car to go to the hospital
-Schools are renovated
-More wild animals now, so children can also see them
-WW secures wildlife for the future generations
-Improved the standards of the school
-WW provided desks for the schools
-The freedom of having work
-Acquired knowledge of living together with wildlife
-Improved living standard compared to the years when one was not employed
-WW prevent human from being harmed
-Reduced amount of poachers
-Building of Kale primary school

Disadvantages:
- Didn’t show up last time when a woman called for help at her farm.
-Wildlife destroys the crops
-When wildlife comes and destroys crops or livestock there is no compensation
-WW has a ‘friends’ policy
-Tribalism, WW favours some tribe more then other
-WW has a lot of land and now there is less land for the community with the shamba’s
-Women and men should be equal so employ women to be rangers and for the greenhouse and men to be tailors.
-Management is not fair; they won’t employ you when you are a Kamba.
-Managers use their position in the wrong way
-People who work at WW sometimes have no qualifications while others have finished secondary school but get no job
-Wage of WW employees is not enough for the whole family
-When livestock goes on WW property rangers take action but if wildlife comes to the shamba’s people are not allowed to kill it.
-People are not allowed to take firewood from Ruckinga Ranch
-The rangers say that the wildlife doesn’t belong to them but to the government and that they cannot control them, they use it as an excuse.
-WW does not employ many people from here but mostly Trukana’s, should employ more people from this area.
-Not allowed to graze to cow at RR. Because there is a lack of available grazing land they have to let the cows graze in the shamba’s which is bad for growing crops and trees.
-When someone’s reports a conflict, rangers don’t come or too late
-Land becomes scarce.
-Animals are to be considered of more value then human
-When you go into the bush and rangers find you they will beat you
-Big distance to walk from Maungu to Wildlife Works everyday (WW employee)
-It is not allowed to cut treed so now they can’t get poles to build houses
-A leopard killed many goats
-When a person is being killed by an animal there is no action but when a person kills an animal they taken action
-The people who lived on the other side of the hill on RR got removed
Q47. Other changes/recommendations?

Answers given by the respondents:
- Many workers from WW are not from this area but from Nairobi or Mombasa, WW should try to employ more people from the local community.
- Rob is very good and is close to the community
- People have learned how to prevent elephants from going in the shamba through the chilli.
- If WW would put a generator or container the water problem would be solved
- Allow the farmers to graze the livestock on the ranch during dry season
- Rob for president!
- Employ children who are orphans or who have a single parent, help the families who need it the most.
- Sometimes 4 children from 1 family employed at WW
- WW gave out chilli plants but they gave them too late in the season, so next times give them earlier
- WW should set up and help the community groups. So they would receive aid as a group which is better then one person. Want to write a proposal and go to WW with it.
- The charcoal burning has decreased because of WW
- WW should keep on teaching the community the importance of wildlife and trees

Q48. What other institutions, NGO’s, religious organisations, government projects are influencing the development of your community?

Generally the respondent could answer this question and most of them named World Vision. Other NGO’s/institutions named are Danida, The Kenya Women Finance Trust, CDF, KWS and KAPP

Q49. Can you rank these institutions in order of impact in your life, including WW?

![Bar chart showing the ranking of different organizations. WW is the highest.](image-url)
Wildlife Works and World Vision are the most known organizations. Some preferred WW as number 1 because they did many for the schools, and other preferred WV as number one because they provide food. Some said that they are all number one because they all help the community in their own way.

Q50. Are there any community groups you are involved in?

The majority of the population is involved in community groups. A list of these community groups can be found in annex c.
**General analysis**

**Influencing factors**

In order to determine which impact WW has on the community it must be set which factors could possibly influence the outcome. It is important to find out if the changes that have occurred would have happened anyway, and the degree to which an observed change can be attributed to WW.

To avoid mistakes as much as possible at the beginning of every interview was asked whether they knew WW and if they knew the difference was between KWS and WW. This was decided after it showed up that some interviewees mixed those two. Some changes have occurred due to organizations like WV and Born Free. WV had some seminars on how to grow trees and Born Free was the one who provided, in cooperation with WW, the cinemas about game meat.

For the interviewees of WW it could be that they answer more positive because they might think their answers will end up with the big boss or because they want to be positive about their company. With the other respondents it could also be that they answer more positive then they actually are because they hope they can get some support out of this. To avoid these confusions at the beginning of every interview was made clear that this is an independent research and that their names are not made public.

Another factor which could influence the outcome is the climate. The last 3 years there have been insufficient rains and food aid was provided. But this year was a better year until so far and the first harvest was good. This could influence the results in a positive way because now people have enough food and the people experience more happiness.

**WW employees versus non-employees**

The WW employees are the ones who are directly and most influenced by WW. Therefore it is important to know what kind of influence WW has on them compared to the non-employees. Here below are graphs displayed in which the influence of WW can be seen.

![Graph showing influence of WW on children's education](image)

Has WW made a change in the children's education

The WW employees were more positive about this change then the non-employees.
For the WW employees WW definitely made a change in their knowledge. They gained more knowledge about their work field like tailoring or being a ranger, and got instructed about wildlife and conservation.

As for the same as the former question, the WW employees gained more knowledge of conservation because of their employment.

That the WW employees answered the question more positive could be to the fact that they know about the WW aims are and that they want to give a positive image of their company.
For this question there is a difference between the WW employees and the other respondents. The WW employees see the importance of wildlife conservation better because they experience the benefits, and are more educated in these matters.

Both parties contribute to conservation in a different way. Some of the WW employees live in rental houses and have therefore no land for planting trees. But they contribute to conservation by educating other people about how they can contribute to conservation and about the benefits for the community.

As the graph shows both parties think quite the same about this. The WW employees are a bit more positive because they are taught by WW how to work together.
Both parties think quite the same about this.

The women who are employed indicated that for them there has been a major difference since now they have their own income because of WW.

This graph shows that even though the WW employees are more positive about WW (which is logic) they give honest answers and respond according to their own opinion.
Income comparisons

- Compare average income between men and women

As expected it appears to be that the men have a higher income than the women. Many women don’t have a permanent income and stay at home while the men are responsible for earning money.

- Compare average income per job
In this graph the seasonality of the different jobs is displayed. For the hotel owners and shop owners the dry season is the best season as that is the period in which the households stock decreases. For the farmers and jobless the rain season is the best period because then some farmers hire occasional labour for the shamba. Income earning through employment has undoubtedly become an important strategy for the household to secure itself of food throughout the year.

-Relation between income and increasing the wildlife

As seen the wealthier people say WW should increase wildlife, because they are less depending on the shamba for their food security and might have more knowledge about the advantages of increasing the wildlife.

Differences per village
-Relation between the villages and increasing the wildlife

In Maungu the majority responded with yes. In Bondeni everyone (3 persons) said no. For Itinyi almost 60 % said yes. For Marungu and Kale the majority said no. This can be explained by their geographical position and their income generating activities. Maungu, Bondeni and Itinyi are closest to the high way and have more economic alternatives besides farming. The communities of Marungu and Kale have less economic alternatives and
depend mainly on farming. Also are those communities located are in a more vulnerable area as they are positioned in a valley and a pass-way for the wildlife.

-Relation between the villages and the change in human/wildlife conflict

![Graph showing the change in human/wildlife conflict]

For this question there are no significant differences between the villages.

-Relation between the villages and food aid

![Graph showing food aid distribution]

The villages of Marungu and Kale exist mainly of subsistence farmers and are therefore more vulnerable for drought. Compared to the other villages more people in these villages receive food aid in case of food shortage.
-Relation between the villages and whether the community works together

In Maungu the respondents are more positive about this question because they have experienced the cleaning day which was done in cooperation with the whole community. For the other villages there are no big differences. Besides Bondeni but can be explained by the low number of interviewees.

-Relation between the villages and the disadvantages

For this question there are no significant differences between the villages.
**Objective analysis**

The main objective of this study is to find out whether Wildlife Works is able to create a viable economic alternative to the use of natural resources.

At this moment the area surrounding Ruckinga Ranch is threatened by excessive use of natural resources which leads to deforestation and erosion. The resources are used as building material, food (game meat), charcoal, firewood and medicines. The land also suffers great pressure due to grazing of livestock and the shamba’s. To oppose this depletion of the natural resources WW offers the community an economic alternative in the shape of employment. Through receiving wages people are less depending on the shamba for their food security and less depending on natural recourses. They achieve through income generation the possibility to choose for nature friendly alternatives.

However the use of natural resources is incorporated in the culture and customs, and they will keep on using them. But through education and extension they will become conscious on how to handle nature in a good way. Through, for example, not cutting wood for firewood but collecting the sticks on the ground and planting new trees on a regular base. Because of their better economical situation they can choose for a sustainable way of building by using bricks, for which less wood is needed, and iron sheets on the roof instead of a grass-thatched roof. Unfortunately only a small percentage of the community can be employed by WW, but the money spends by them influence the entire community through the knock-on effect.

The question to answer is in which way Wildlife Works offers a viable economical alternative to the use of natural recourses to the community.

Because of the employment of a part of the community the local economy is stimulated. The ones who are employed by WW make more money then the average inhabitant as appears from the graph below.

![Graph showing personal income and expenditure](image)

The WW employees have a relative wide purchase power compared to the non-employees. The money they earn is put in the local economy. Often the employees send money to their family who stayed behind in the villages where they come from, through which the economy in the other villages is also stimulated. The money earned is used in various ways. As seems
in the graph below the WW employees live more often in a rental house then the other respondents.

This is because they relocate to Maungu from the villages they come from but the family stays behind so they only rent a room for themselves. It also happens, mostly by female employees that they hire people like a maid or someone to look after the cows. The WW employees have less often a shamba due to the fact that they rent a house more often and there’s no agricultural land with it.

This means that the ones without a shamba depend on the local businesses for their food supply. However they probably receive some food from their relatives who stayed behind in the villages they come from, they still have to buy most of the food. This means much input for the local businessmen. Thus the money spend by the WW employees mostly goes to food, house rent and possible extra help like a maid which creates some employment for the
community. The local businessmen also earn more money due to the WW employees as can be seen in the graph below:

The ones who receive direct or indirect support clearly have a higher income than the ones who don’t benefit from WW. But keep in mind that the ones who indirect benefit from WW are mostly businessmen and probably earn more than the average respondent anyway.

Through providing employment to a part of the community a knock-on effect is created and the whole community benefits from this. The knock-on effect means that money is spend by someone, then the money goes on to the next person, then to the next etc.

The question is whether WW has succeeded in creating a viable economic alternative to the use of natural resources. The answer to this is yes. Because through giving out sufficient income WW gives the people the opportunity to choose for more sustainable alternatives. This does not directly mean they do. By providing enough extension and education they will become conscious of conservation and the consequences their actions have. All the WW employees have adequate knowledge on conservation through their employment at WW. And they in their turn pass on their knowledge to the community.

To conclude WW offers a good economic alternative but on its own this will not be sufficient to minimalize the depletion of the natural resources. Through providing a good economic alternative in combination with education the community has the opportunity to use more sustainable methods.

Unfortunately it is not possible to specifically say how big the economical alternative offered is. Per month 7,700.00 shilling goes into the local economy. This spreads out from the WW employees to the other community members through the knock-on effect. Thus the whole economy is stimulated and will be further developed in the future which will leads to more wealth for the community. Per village the economical development is different. The village infrastructure and the distance to the paved roads play an important role in the economic performance of the communities.
The overall conclusion is: Yes, WW does well in offering a viable economic alternative, but it takes time to manifest and to develop the whole area, and education is a condition.

_A sub objective is to gain knowledge on what the community thinks about WW._

To determine the strategy for further projects it is necessary to know how the community thinks about WW. Might this be negative then it is clear that more effort has to be put in promotion to create a better picture of WW at the local community. Luckily the community thinks mostly positive about WW. They support the projects and thinks WW is doing a good job. Thanks to the projects and education 54.5% of the respondents even think WW should increase the number of wildlife. This is because they now know that the wildlife can lead to a better future for them in the shape of employment and tourism. More numbers and thoughts from the community can be found in the results.

Even though the respondents appear to be quite positive in the results most of them said during the interview: Yes, BUT… With other words: they agree and think WW should keep up the good work but only when for them the damage is kept minimal. The respondents want to keep this minimal through precautions like a fence, trench, more patrols by the rangers and more education on how to live with wildlife. The majority of the community indicates that they are willing to cooperate on the aims of WW as long as they don’t suffer any damage and as long as they are maximum protected against the human/wildlife conflict.

This is logic since their 1st necessary of life, the food production, can be threatened when the wildlife increases.

In the future with the rising economy more people will support the goals of WW. As seen on the graph below there is a relation between the income and question whether wildlife should be increased.

As seems are the respondents with the higher incomes more positive. Thus when more money goes into the community and the local economy develops further more people will gain an income besides the shamba and therefore they are less dependant on their food production for food security. For that reason it is important for the conservation too keep on putting money in the local community and more people will support the WW aims.
Another sub objective is to find out what WW can do for the community in the future.

It is important to let the projects of WW connect as much as possible to the wishes of the community to assist them maximum and to show them the advantages of conservation. The answer to this sub-objective can be found in the results in Q 45, Q46 and Q47. What WW can do best for the community is coped with in the chapter of recommendations.

Other impacts of Wildlife Works

Other changes brought about by WW can be found in the social context. WW makes a big change in women empowerment for the ones employed. Although it is getting more accepted for women to have a job the female side of the WW employees indicated that it has made a big change for them to have their own income.

Another social impact of WW is in the happiness of the ones employed. As can be seen from the graph below, the majority of the people employed rate the quality of their lives higher than the respondents not employed.
**Recommendations**

In this chapter all the information gathered will be coped with and translated into useful recommendations for Wildlife Works.

*Use of natural resources*

The use of natural resources like firewood, medicines and building materials in incorporated in the local culture and good alternatives have to be offered before they will change these habits. Alternatives for the use of firewood can be collecting the sticks on the ground and planting new trees on a regular base. For the use of natural medicines providing enough income is a good alternative since then people can get medicines from the health centres. But the health centres have insufficient stock of medicine and are sometimes to far away, so another improvement would be to make sure there are enough medicines against a reasonable price available.

To reduce the use of natural resources as building materials the use of bricks and iron sheets must be stimulated. The use of bricks also has advantages for the local community since it creates more employment and the houses are better. This is improvement will take long time to manifest since not all persons will shift to use of bricks because WW would say so, but with time the use of bricks will become more common. The use of bricks is more expensive therefore it is important to keep on stimulating the local economy.

These alternatives should be stimulated through extension and education. Think about the media fore example, show more educative movies, make posters, hold seminars, or cooperate with the primary/secondary schools and make a educational package about these topics which can be handed out to the teachers.

The charcoal burning is very difficult to bring to a halt. This is not in the hands of the local community but lays with companies from outside the area that send people here to burn charcoal. At Rukinga there is no charcoal burning anymore thanks to the rangers, but outside RR it is more difficult to control. What can be done against charcoal burning is keep on patrolling, stimulate the community to report charcoal burners and stimulate the (local) government to take measurements.

*Cooperation community*

To achieve the goals of WW it is important to keep a good cooperation with the community. If you want the community to support WW they first have to understand about the goals, conservation and the benefits. Therefore it is important for them to create more awareness about these subjects; people cannot support WW if they don’t understand the purpose of it. More awareness can be created through seminars and projects.

An important influencing factor of the cooperation between the community and Wildlife Works is the human/wildlife conflict. The community is willing to cooperate but only when for them the damage is kept minimal. During the rain season when the crops are on the field the human/wildlife conflict increases. When necessary during the rain season more rangers should be employed to control the wildlife.

The aim of WW is conservation of wildlife. With this the number of wildlife in the area increases and there is more chance wildlife could go into the shamba’s. Therefore a good
balance must be found between the amount of animals at Rukinga and the number of rangers. When the number of wildlife increases more rangers should be employed. To improve the cooperation with the community a bottom-up approach should be maintained and the projects should connect to the wishes of the community. Among the community members there is a need for more education about farming, how to live with wild animals and about possible businesses like mushrooms or beekeeping.

Besides personal danger the human/wildlife conflict is mostly about food security for the local communities. Another advantage of providing more extension about farming is that the food security is enhanced. The subsistence farmers have only a small income and depend on their shamba for food. With providing extension about farming the harvests might increase and more food security is created.

So the overall recommendation for keeping a good cooperation with the community is to provide more extension about WW, conservation, farming and the topics the community is interested in. Another aspect is to assure enough protection against the human/wildlife conflict.

Recommendations per village

Although the villages are located close to each other they are slightly different as can be seen in the village profiles. Therefore recommendations per village are made.

Maungu is most developed and doesn’t need much support on the matter of farming. For Maungu it is important to get more facilities like a dispensary for enough medicine and a trainings school (Politechnical School) to teach about carpentry, construction work, mechanics etc. These facilities will also be of value for the other villages.

Itinyi is between Maungu and Marungu and has the benefit of being close to facilitates of both villages. Marungu secondary school is located on the border of Itinyi. The school has only 2 classrooms and needs to expand, therefore funds are needed. Extension on the matter of farming and seminars are helpful in this community.

Marungu and Kale face the same constraint, the lack of water supply. Somewhere the water system is broken and this has not been fixed for over a year. Urgent help is needed and this can be done by either persuading the local government to deal with it or for WW to do it themselves by fixing it or by making boreholes. Marungu and Kale mostly exists of farmers and therefore also here education about farming and how to live with wildlife is helpful.

For all the villages extension about WW and conservation is useful to create more awareness and understanding.

Future

In the future new projects are set up to assist the community. At this moment there is a proposal to turn TDC into a safari guide school to train local people. This would be of great value for the local community as well on economical aspect as on the aspect of knowledge. Through these safari guides knowledge will spread through the community. The people who work in tourism earn a lot more then the average people as can be seen in the graph at page 47. When the safari guides return to their families in the villages the whole community can see how much they can benefit from tourism and more people will support the conservation of
wildlife to increase tourism. The safari guides will also bring more money to the area and provide an economical impulse. This will lead to a better economy of the villages, more employment and more people who can choose for better alternatives to the use of natural resources. And when more money goes in the area the average income will increase and more people will support the conservation of the wildlife as can be seen from the graph on page 54.

To improve the economy in the future more employment should be created through expanding the factory or through finding new unique products like baskets which can be sold at the WW shops in the US and UK. With setting up the tourism lodge opportunities will be established for local employment.

For the future to execute new projects and extension WW should cooperated with other organisations as much as possible in order not to diverse too much, for example more cooperation with Born Free and the Taita-Taveta agricultural project.

The final recommendation I would like to make in order to meet all the recommendations stated before and to meet the WW goals is to set up a micro credit project. With this locals can submit for a loan against a small interest for their own project proposals. Through the loan new services can be offered and it will be a new economical impulse. For funding only one big amount of money is required instead of continues need. The loan can be provided to only community groups or to everyone who comes up with a good proposal. With this the initiative comes out from the locals themselves and they are encouraged to do something themselves. It also provides an opportunity for them to have income generation besides the shamba which makes them less vulnerable for the human/wildlife conflict. With providing the loans also some extension can be given out about WW and conservation which creates more awareness.
References

Reports:
Wildlife Works, November 2005, Proposal for the Kasigau reforestation project
D. Teissedre and P. Yan, March 2007, Ruckinga Chilli Investigation for Wildlife Works (report)

Literature:
Chris Roche, 1999, Impact assessment for development agencies; learning to value change, Oxfam development guidelines

Individuals:
Rob Dodson, Site manager of Wildlife Works Kenya
Grace Ndigwa, Project writer of Wildlife Works Kenya
Annexes

Annex A: Questionnaire

<table>
<thead>
<tr>
<th>Location:</th>
<th>Questionnaire</th>
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**Location:**

*General*

1. Name
2. Age
3. Gender
   - Male
   - Female
4. Village
   - Maungu
   - Itinyi
   - Marungu
   - Kale

5. How long have you been living in this village?
5.1 If less than three years, where did you live before?
6. What is your marital status?
7. What is the composition of your household⁵?
8. Do you receive any direct/indirect⁶ support from WW?
   - Direct:
   - Indirect:
   - None

9. Do any of the other household members benefit from WW?
   - Yes, namely:
   - No

10. What tribe do you come from?
11. What is your profession?
12. Are you employed by WW?
   - Yes
   - No

13. In what activities organised by WW have you been involved?

*Standard of living*

14. What kind of house do you live in? (rental, bought, self build, material, nr rooms)
15. Do you have access to electricity at home?

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⁵ Household=people who live together in the same house, this does not include guests
⁶ Direct=employment, school support, involvement projects.
   Indirect= money spend by WW employees
• Yes, through a solar battery
• Yes, permanent supply
• Yes, other
• No

16. Do you have access to water at home?
• Yes, through a water pipe
• Yes, through a water catchments tank
• Yes, other..
• No, I get water through a communal tap (kiosk)
• No, I buy water
• No, other...

16.1 If there is access to water at home, is this a reliable constant supply?
• Poor
• Average
• Good

16.2 If there is access to water at home, how is the quality of water?
• Poor
• Average
• Good

17. Has the water supply changed the past three years? (Not because of climate eg drought)

18. What kind of sanitation is present?
• Toilet:
• Shower:

19. Has this changed the past three years? If yes, why?

20. What is the number of meals you have per day?

21. Do you receive food aid?
• No
• Sometimes
• Regular
• Always
21.1 If yes, by whom is the food provided?

22. How would you rate the quality of your life three years ago?
• Very poor
• Poor
• Average
• Good
• Very good

23. How would you rate the quality of your life now?
• Very poor
• Poor
• Average
• Good
• Very good

Economics

24. Do you have agricultural production? If yes, how much production do you have? If yes, how much of the production is for your own use?

25. What is your personal income? During last rain period:
   • Monthly:

26. What is your personal income? During last drought period:
   • Monthly:

27. Has your income increased compared to 3 years ago? If yes, has WW had any influence in this?

28. What is the income of your household? During last rain period:
   • Monthly:

29. What is the income of your household? During last drought period:
   • Monthly:

30. Has the income of your household increased compared to 3 years ago? If yes, has WW had any influence in this?

31. How much do you spend on ‘the cost of living”? This includes food, house rent, electricity, water, clothes, school fees, taxes, bank account etc

32. How much money do you have left monthly for savings?

Education

33. Do you think that WW has made a change in the children’s education?
   • No, no change
   • Yes, a positive change
   • Yes, a negative change

34. Has WW made a change in your knowledge? (practical, technical, the world, social etc)

Conservation

35. Has WW made a change to your knowledge of conservation issues?

36. Have you noticed an increase in the number of wildlife around your village compared to three years ago?
37. Has WW/Rukinga made a change in the human/wildlife conflict by encouraging an increase in wildlife number?
   • No, no change
   • Yes, a positive change
   • Yes, a negative change

38. Should WW be trying to increase wildlife numbers?
   • Yes, because..
   • No, because..
   • No opinion

39. Do you contribute in conservation of wildlife or trees? (Stopped poaching, protect wildlife, planting trees etc.)

40. Do you think that the use of game meat has reduced because of WW?

Community

41. Has the number of services/shops in your village changed over the past three years? If yes, what is the reason for this change?

42. Have WW activities made your community to work together more?
   • Yes, namely..
   • No

43. Do you think that WW and the community work together in a proper way? How can WW improve the cooperation with the community?

44. Has WW made a difference in the men-women relations? (division of work, division of money, respect etc)

Future

45. What can WW do for you in the future to improve your lives?

46. What are for you the advantages and disadvantages of WW?

47. Are there other changes made by WW not mentioned in this questionnaire?

48. What other institutions, Ngo’s, religious organisations, government projects are influencing the development of your community?

49. Can you rank these institutions in order of impact in your life, including WW?
   • Nr 1 most impact, 2 less, etc.

50. Are there any other community groups you are involved in?
Annex B: Wildlife Works

A brief description of Wildlife Works and Rukinga Wildlife Sanctuary.

Wildlife Works (EPZ) Ltd is a unique business venture dedicated to ensuring sustainable conservation in Kenya by providing people in rural locations, who live close to wildlife rich areas, with economically sound alternatives to poaching, clear-cutting and over-harvesting of local resources.

The business idea is based on the link between the consumer, on the one hand, and wildlife conservation and job creation in rural Kenya on the other.

Wildlife Works own a majority shareholding in Rukinga Wildlife Sanctuary, an 80,000 acre, former cattle ranch that has now been turned over to wildlife that pass through the unfenced sanctuary as it moves between Tsavo East and Tsavo West National park.

What is Rukinga Wildlife Sanctuary?
Formally cattle ranching land owned and managed by Galana Cattle Company, Rukinga Ranch was to be sold in 1999 to another cattle ranching company to be used as a fattening range for cattle brought down from North-Eastern Province, en-route to the coastal slaughterhouses.

This sale would have very likely led to the destruction of Rukinga as a safe passage for migrating wildlife between the two halves of Tsavo National Park. Realising this Wildlife Works funded its purchase in February 2000.

Rukinga Wildlife Sanctuary is now a safe haven for up to 400 elephants and well over 1000 buffalo, more than 20 lions and even a small pack of African wild dogs. We have recorded over 28 large mammal species and 346 bird species to date.

What is the Wildlife Works EPZ Ecofactory?
Wildlife Works EPZ Ltd has built an eco-friendly (rammed earth construction) clothing factory on the northern boundary of Rukinga. It is Wildlife Works intention, to conserve Rukinga in as natural a state as possible through capital generated by the sales of garments manufactured by Wildlife Works.

The factory creates garments made from only fully organic materials, worked by locally employed and fairly paid members of the communities that border Rukinga. Creating employment will also provide a cash alternative to the unsustainable utilisation of natural resources that threatens Rukinga today.
Annex C: Map of Ruckinga Ranch and surrounding villages

APPENDIX A: Map of Ruckinga Wildlife Sanctuary and villages surveyed

SCALE 1:50,000
Annex D: Village profiles

Maungu
Maungu is a medium sized village on the main road from Nairobi to Mombassa. It is situated in the Taita-Taveta district and has about 2050 residents. The village started about 50 years ago as some houses in the middle of the bush. The community mostly existed of the Taita tribe. Around 1970 Kasigau road was build from Maungu all the way to mount Kasigau. During the seventies more people came to the area and a church and a primary school were build.

Because the village is situated at the main road from Nairobi to Mombassa it developed as a truck stop town and attracted business. Until 2003/2004 there was no electricity in the village and the security was bad. Many robberies were recorded, but with the coming of a city council in 2004 the safety standards has improved significant. The growing city attracts people from all over the country and population is a mixture of different tribes, mostly Taita, Duruma and Kamba.

The last 5 years Maungu has been growing quickly. The presence of electricity attracted more business and nowadays there is even a market twice a week. The number of shops and services has increased. More and more people set up new businesses in Maungu which leads to a growing competition. There are two hospitals, one private and one government. There are three private primary schools and one government primary school. Marungu secondary school is the closest secondary school to Maungu. From 2007 a post office has been opened.

The community of Maungu faces a number of problems. First of all there is a lack of employment in the area. Most of the people are jobless and suffer from poverty. WW is the only large company in the area. The population increases but the amount of farmland stays the same which means that the prices of land are rising and the percentage of people who have access to farmland is decreasing. Another problem due caused by the lack of employment, is the excessive use of alcohol which can sometimes lead to family crisis. Because Maungu is a truckstop is has also attract some other side business in the form of women offering their ‘services’. This causes problems because young girls (and boys) get involved too.

The area has a very high hiv/aids ratio and in Maungu and the other villages are many orphans. Another problem is the provision of water. Maungu is connected to the main pipeline from Mombasa called the Mzima springs pipeline. The pipeline is sometimes broken and then there is a lack of water.

Bondeni
Bondeni is a very small village situated between Maungu and Itinyi. The village has about 400/500 residents and is scattered on both sides of kasigau road. It has no village centre and the only community building is a nursery school. The community depends on Maungu for shops and services. The community depends on farming and they are very vulnerable for drought. Though more people now start to profit from the growing economy in Maungu and find work there.

Itinyi
Like other villages on kasigau road, Itinyi is scattered on both sides of the road. The ‘centre’ of the village is around the primary school. That is where also the only shop and Marungu
secondary school are located. Itinyi has 1007 residents who come from different tribes. The population is increasing. The village consists of 2 nurseries, 1 primary school, 3 kiosks and 1 shop. Likewise Bondeni this village exists of mixed farming mostly. Compared to the past more livestock is being kept now and the village is developing slightly.

**Marungu**
This village can be compared with Itinyi only it is larger. Marungu contains 2512 inhabitants and is therefore the biggest of the 5 villages. It has not the facilities of Maungu since it has not the infrastructural advantage of being a truckstop. The population consists of mostly Taita, who came from Sagala in their search for fertile agricultural land. Here you can find some grass-thatched houses. In this area there used to be a lot of poachers earlier, now more people have changed their diet to livestock instead of game meat. Marungu has 1 public health centre, 1 primary school, 1 secondary school (the only one in the area), 5 churches, 4 nursery’s and a football field and a volleyball field. For the market they are appointed to Maungu. Marungu suffers one big problem and that is the lack of a good water system. Marungu is connected to the pipeline which goes through Itinyi too but since a year there area problems with the water pump and the community of Marungu has to fetch its water in Itinyi. Another major problem is the food insecurity due to the bad rainfall and long dry seasons.

**Kale**
Kale is split by Kasigau road too but is slightly different from the other villages. This village is more ‘family orientated’ and the people live with several houses in small family communities together. The area is more stretched out and more land per household/family is available. The people are more traditional, they sometimes use a traditional way of maize grinding and here are grass-thatched houses common. Nowadays houses with iron sheets get more seen though. The population exists of mostly Duruma, who were brought from Kwale to this area by the government for better agricultural land. Here too the community depends on farming and have the rains been bad and is the dry season extending. The village has 3 churches, 1 nursery, 1 primary school which was build in 1990, and about 6 shops. Kale is connected to the water pipe, but as the same as in Marungu, has the pump system been broken.

For all the villages among Kasigau road counts that there are water problems and the communities are very vulnerable for droughts. Most people are subsistence farmers and the unemployment rates are high. Due to the free primary schools the education level is rising. But a big problem is that many girls get pregnant during primary school and quit school. Even if students finish primary school there often is a lack of money among the parents to send them to primary school. The ones who do get to go to secondary school often get stuck too, even if they graduate. This because their education level is higher but there is still no work in the area and the school fees for colleges and university are incredibly high. From next year on the government plans to provide electricity in all the villages on Kasigau road unto mount Kasigau. Unfortunately the costs to get connected to electricity are very high so the main share of the population will not benefit from this improvement. Although in the future it might attract more people and business to the area which means a better economy and more job opportunities. For the whole area the closest technical school and colleges are located in Voi.
Annex E: Community groups

Maungu:
Conservation environment group → environmental comity of Maungu, which is controlled by WW. They do the cleaning in Maungu.
Lulu welfare group → just starting project and looking for financing
Young mothers youth group
Vision youth group → make bricks, helping aids people
Mandeleo kyawanawabi → merry-go-round
Maungu youth group → helping with aids and perform drama acting, 15 people
Melembo group
Mabati womens group → build houses together, also want to build a hall for ceremonies, make traditional baskets but not enough market to sell them.
Maungu Vision → give out credit for businesses, 19 people
Jitihafa group → buy household equipment as a group, 10 people involved
Matarajio youth group → works through KWFT, applies loans for business, 30 people
Fosa group → cooperation for teachers, loans, 8 people
Shurkanri women group → loans
Salama group → watchmens group who secure the trucks at night, 23 people
Kizorini women group → merry-go-round with cows, everyone grazes the cows, when calf is born it goes to another person
Tutaweza women group → have a grinding machine for maize, have a plot, only need electricity now but is yet too expensive
Msharini men dairy group → plant aloe vera, keep dairy cows, 30 people
Community based association → conserve wildlife, ecotourism, have written a proposal and try to get funds, objective is to get as many members as possible (100) to benefit the community
Mlingo farmers group → plant vegetables together

Bondeni
Adult education group → teaches how to read and write to adults, has plans to set up a business in soap making, 40 people
Jitejemea group → tries to grow chicken, 20 people
Bondeni Youth group → have planted trees and is planning to grow mushrooms and rent some houses together
Bondeni Water group → plant trees and sell them to others (a small nursery)

Itinyi
Itinyi Imani Women group → does farming together, grow vegetables, breed goats and chickens, more then 100 members
Pastors fellowship → involve 7 churches in Itinyi
Upendo group → breed goats together, 25 people
Young nation → consists of young people who come together and share ideas about agriculture and football

Marungu
Kibaoni group → plant crops, exchange knowledge about farming techniques, also plants mushrooms, 48 people
Marungu Youth Development group → put maize together and sell in large quantities for more profit
Joy-self-help-group → want to start a greenhouse, now everyone is contributing to start the project, 40 people
Marere women group → assist with ceremonies like burials, almost all women in Marungu involved
Jipemoyo group → make bricks together for all the members

**Kale**
Kale youth group → contributing money to set up a project, 22 people
Kale sasa women group → merry-go-round, 14 people
Mwangaza women group → bought some cattle for ploughing together, 18 people
Sombeza group → organize fund raisings to get children in secondary school, 20 people from Kale but more from Mikamenyi, Sasenyi and Marungu, total more then 100 people involved

**Sasenyi**
Sasenyi women’s group → merry-go-round, buys assets for ceremonies together, more then 500 people