



# The impact of the fast track land reform program on wildlife in the Bubiana conservancy in Zimbabwe

Noel Dube<sup>1\*</sup> and Oliver Moyo<sup>2</sup>

<sup>1</sup>Department of Geography and Environmental Studies, Zimbabwe Open University, Box 346, Gwanda, Zimbabwe

<sup>2</sup>Rushumbe Primary School, Bag 9176, Mwenezi, Masvingo, Zimbabwe  
noel.e.l.dube@gmail.com

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## Abstract

*The main aim of the study is to investigate the impacts of the fast track resettlement program on wildlife in the Bubiana Conservancy of Mwenezi West District. A case study was done using a mixed methods approach where both qualitative and quantitative evidence was used. Stratified random sampling was used to choose a sample of 24 individuals from a population of 237 community members. During the study questionnaires, interviews and observations were used to collect data. The study revealed that there are high levels of wildlife habitat destruction in the area which could be mainly attributed to clearing of land for cultivation, for homesteads and to create buffer zones against wild animals. Poaching is also rife in the area with sixty-five percent of the poachers in Bubiana Conservancy use wire snares followed by twenty-percent who use hunting nets and fifteen-percent who use dogs. There were also high levels of water pollution with plastics comprising approximately 50% of the pollutants, human waste 25%, old tins 15% and rags approximately 10% by volume.*

**Keywords:** Resettlement programme, wildlife habitat destruction, poaching, pollution.

## Introduction

**Background to the study:** In 2000 the government of Zimbabwe initiated the Fast-Track Land Reform Programme (FTLRP) which saw most communal farmers being resettled on commercial farms mainly owned by white commercial farmers<sup>1</sup>. Prior to the FTLRP the commercial (private) lands especially conservancies had supported quite a large number of wildlife outside of National Parks<sup>1</sup>. The FTLRP was facilitated by the Land Acquisition Act of 1992 which stipulated that land could be acquired by the government compulsory without compensation of the affected owner<sup>2,3</sup>. The Zimbabwe Government used the land acquisition Act to allow thousands of landless people to forcefully grab and evict the white commercial farmers from different farms. These farms included conservancies and wildlife areas such as Bubiana Conservancy of Mwenezi west district.

The major aim for land acquisition was to resettle crowded people and to increase crop production through cultivation of virgin land. In addition, the government was to quickly provide newly settled black people with important facilities such as clinics, schools, shops, dip-tanks, boreholes among other necessities<sup>4</sup>. The justification for the FTLRP was that Zimbabwean government mainly wanted to acquire and designate under-utilized land and land sharing boundary with communal areas<sup>4</sup>.

The fast track land reform program has had negative impacts on former wildlife areas, wetlands, estuaries, and game parks.

Uncontrolled grazing has led to environmental stress in the former commercial areas and conservancies with wetlands and estuaries having dried up<sup>3</sup>. Land clearing for agricultural, timber and firewood purposes has left the wildlife areas desolate. Wild animals were either killed in numbers or forced to migrate to peaceful corners. Land clearing has led to untold deforestation which has resulted in soil erosion. Uncovered soil is susceptible to all agents of erosion. Also, uncovered soil is prone to leaching. Furthermore, erosion may deposit eroded material in dams and rivers thereby causing siltation and sedimentation<sup>2</sup>. Most of the farms designated in Mwenezi were either wildlife or commercial cattle ranching areas, most of which are now eroded, deforested and overgrazed<sup>5</sup>. The tragedy of the commons is gradually affecting most of the resettled areas with the lack of bye-laws and legislation towards conservation of natural resources exacerbating the problem<sup>6</sup>.

**Statement of the Problem:** Following the fast track resettlement program, some wild animals are no longer found in the Bubiana conservancy owing to either migration to safer places or massive slaughter by farmers. Human presence and their varied activities lead to reduced wildlife biodiversity. However, few researches have been done towards the impact of the fast track land reform program on conservancies such as Bubiana. New farmers cause enormous harm to wild animal habitat and environment as they clear the land, hunt and kill animals for various reasons. Some fires run out of control when used for various purposes. Water pollution is also evident due to different human activities, namely gold panning, pesticides disposal and siltation.

Deforestation also leads to soil erosion, siltation and possibly flooding of riverbanks. Notably, much has been mentioned on the positive impacts of the program but less light has been shed towards the negative impacts of the fast track resettlement program. In light of this, the study will focus on how the fast track land reform program has impacted on wildlife habitat, levels of poaching, levels of animal disease transmission and water pollution levels in the Bubiana conservancy.

**Purpose of the study:** The main aim of the study is to investigate the impacts of the fast track resettlement program on wildlife in the Bubiana Conservancy of Mwenezi West District.

**Objectives of the Study:** i. To determine how fast track resettlement program impact on wildlife habitat. ii. To assess how the fast track resettlement program has affected levels of pollution. iii. To determine the impact of fast track land reform program on levels of poaching.

**Assumptions of the Study:** The researchers assumed that farmers would cooperate whenever their input was needed and that problems highlighted are general across the area under study. It was also assumed that the respondents would give correct accurate information. The researchers also assumed that the recommendations of the study would help in managing the environment and rehabilitating it.

**Significance (or Importance) of the Study:** The research seeks to assess the impacts of the fast track land reform program on the Bubiana Conservancy. The study will benefit other countries that may want to embark on land reform program to have some light on how best to handle it. The study will also benefit various stakeholders including the government departments, local authorities, academic groups, local community itself and the Environmental Management Agency may also make use of the gathered information. The government departments responsible for resettlement and agriculture, National Parks and Wildlife, Veterinary services, and the Department of Agriculture, Technical and Extension Services will use the study to identify the impacts of the fast track resettlement program hence come up with ways of managing these problems. The study will also add to the general knowledge on the impacts of resettlement on wildlife in previously protected areas.

**Scope (Delimitation) of the Study:** The study mainly focuses at investigating the impacts of the fast track land reform program in the Bubiana Conservancy in Mwenezi West district under Chief Mazetese. The study area lies between Bugwe River and the former Mbokodo farm (section 7) boundary and the Makhado-Maranda road. The study will be confined to Chizenge, Tigerberg, Chiswine, Chavasikana, and Gandahari villages.

**Limitations of the Study:** This was a case study and as such findings from the study may not necessarily apply to all situations in the country. The case study design like most qualitative research methods lack experimental and statistical

controls which makes it hard to establish internal validity<sup>7</sup>. Even though it is also difficult to generalize findings of case studies to other cases such findings can be generalized to similar situations<sup>7,8</sup>. The conditions in the Bubiana conservancy are similar to conditions in other conservancies which have been resettled in Zimbabwe therefore the findings can be generalised to those settings. The study will also be based on voluntary cooperation and lack of cooperation can weaken the study. The local leadership was skeptical of the motives of the researchers and most of the locals were illiterate. The researchers managed to create good rapport with respondents and provided user friendly questionnaires which were unambiguous and easy to understand.

**Ethical and Legal Considerations:** The purposes of the research was well articulated to the participants and any potential risks of participating in the study were spelt out. The participants were also informed that they reserved the right to withdraw from the study if they felt uncomfortable. There were also advised that all the information collected would be confidential and their responses would remain anonymous. The study was conducted in a way that made sure that the individual study participants did not experience any harm as a result of their participation in the research. The participants were also assured that the resulting research and publications would be for academic purposes only.

**Organisation of the Study:** The first part of the paper outlined the background of the problem, described the statement of the problem, outlined the objectives and generated the research questions, gave the assumptions of the study, described the significance of the study, outlined the limitations of the study and gave the ethical and legal considerations of the study. This next part discusses the research methodology which includes the research design, the population and sample of the study, the instruments used, and finally data presentation and analysis procedures. This is followed by results and discussion which covers data presentation, interpretation, analysis and discussion. The paper ends with a conclusion.

## Methodology

The research methodology will look at the research design, subjects or participants, research instruments, data collection procedures, data presentation and analysis procedures. This part of the paper mainly focuses on the research design employed to assess the impact of the fast track land reform program on the Bubiana Conservancy. The part begins by explaining the understanding of research design and methodology. This is followed by a description of the subjects and research instruments used in carrying out the study.

**Research Design/plan:** A research design or plan refers to laid down methods or strategies used for planning and organizing a research<sup>10</sup>. The research design can also be described as a basis or strategy of how a research design is carried out<sup>11</sup>.

A research design can therefore be viewed as a method of data collection specifying the manner or strategy adopted in gathering data from the respondents. Both the qualitative and quantitative research designs (mixed methods approach) were used in carrying out the research in the form of a case study. A case study was done which can be described as a methodology that investigates a phenomenon within its natural setting or real-life context<sup>12</sup>.

Through the qualitative approach, the researchers merely used words to describe events, documenting events, recording what people say, and observing behavior. The research design is one of a descriptive interpretation<sup>13</sup>. Notably, the qualitative approach rarely discusses variables or hypothesis; instead of creating variables the qualitative researcher gets ideas from the studied sample. Numerical information can be used to beef up the textual evidence gathered and thus how quantitative approach is going to be employed as a research design in this research. This means explanation and meaning of phenomena is obtained by interviewing people and finding out their position about a particular phenomenon<sup>12</sup>.

**Population and sample for the study:** The population of the study were villages in 5 villages which were namely Chizenge, Tigerberg, Chavasikana, Chiswine and Gandahari. The researchers used the stratified random sampling technique in selecting respondents to be given questionnaires and interviewed. Five villages were chosen for sampling and 10% of each of the five village households were used in the sample.

**Table-1:** Sample size for the different villages.

Village name	Number of households	Sample size
Chizenge	50	5
Tigerberg	42	4
Chavasikana	35	4
Chiswine	60	6
Gandahari	50	5

**Research Instruments:** Questionnaires, interviews and observation were used to collect data. Questionnaires were used because of they give interviewees independence and freedom of response as they can be completed in the absence of the interviewer. They can also reduce travel costs since they can be transported in bulk and also reduce chances of subjectivity and bias since respondents have more time to respond<sup>13</sup>.

Interviews were used because they provide a high level of flexibility and give a chance for further probing into interesting issues. The interviews also gave the researchers a chance to explain unclear questions and observe hidden and non-verbal

cues<sup>14</sup>. Observations were used because they are a direct technique which depend on seen events and also lack the artificiality found in other techniques. They were used to validate the messages obtained in the interviews.

**Data Presentation and Analysis Procedures:** Data obtained from the study will be presented in tables and graphs in order to give an overview of findings to identify trends and to establish relationships between parts of the findings. Tables conserve space and present data in such a way that the narrative may be reduced and can also be self explanatory<sup>15</sup>. Relationship among data in a table may be visualized and this process facilitates the process of data comparison. Tables make it easy to summarize data by putting it into individual cells. Comprehension of tabulated data is enhanced as it is easier to understand and remember such data. Graphs will also be used to offer good visual presentation of the results.

## Results and discussion

The results and discussion focuses at presenting, analyzing and discussing the results of the investigation of the impacts of the land reform programme on the Bubiana Conservancy. Findings on deforestation, water pollution, poaching, veld fires cattle diseases shall be presented, analyzed and discussed. Results will be described verbally, supported by detailed tables, graphs and pie charts.

**Impacts of land reform on wildlife habitat:** Six village heads were interviewed and findings are that each farmer was allocated at least eight hectares of arable land to clear and cultivate. Observations made also indicated that vast lands are deforested for crop production and for homesteads. Table-1 shows the average hactarage of fields in each of the 5 villages.

The average area cleared ranges from 8 hactares in Tigerberg to 20 hactares in Gandahari and if these averages are multiplied by the total number of villagers one would get quite a substantial area cleared for cultivation. The average area cleared in the 5 villages is 12.8 hactares, and with the total population in the 5 villages being 237 households bringing the total hactarage cleared for cultivation to 3033.6 hactares. There is a high incidence of veld fires in the area which can be connected to the use of fire to clear land for cultivation. Table-3 shows the numbers villagers using fire to clear their land.

The data indicates that 90% of the villagers use fire to clear their lands which is related to the high incidence of veld fires in the area. According to the Environmental Management Agency statistics, twenty one veld fires were reported in 2018. Interviews with the Chief revealed that fifty people were fined for starting veld fires in the 5 villages under study. All the farmers interviewed indicated that there were high levels of deforestation in the area which could be mainly attributed to clearing of land for cultivation, for homesteads and to create buffer zones against wild animals.

**Table-2:** Average area cleared for farming.

Farmers	Chizenge farmers	Tigerberg Farmers	Chavasikana farmers	Chisvine farmers	Gandahari farmers
Hectares of cleared land	12	8	10	14	20

**Table-3:** Method used to clear the land for farming.

Village	% using fire
Chizenge	90 %
Tigerberg	83 %
Chisvine	95 %
Chavasikana	86 %
Gandahari	94 %

Other causes listed included cutting down trees for firewood, fencing of arable lands and homesteads. This is in line with observations made by other authors on resettled conservancies<sup>16</sup>.

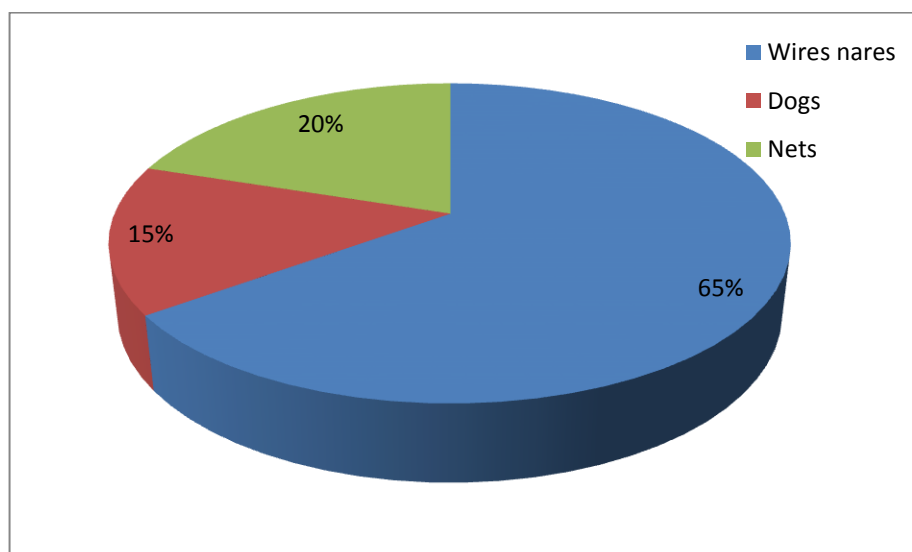
Pair wise ranking of the different causes of deforestation was done and the results are shown in Table-4.

The highest level of deforestation was attributed to opening up of arable lands, followed by veld fires, then the creation of buffer zones, then opening up land for homesteads and the last being the collection of firewood. The reason for the opening up of land for cultivation being ranked first might be attributed to the fact that these are relatively new settlements and the new farmers are opening up land for agriculture or expanding their arable lands.

**Impacts of fast track land reform program on poaching of wild animals:** Figure-1 shows the results of interviews to determine the different poaching methods used by local community members.

**Table-4:** Ranking the causes of deforestation.

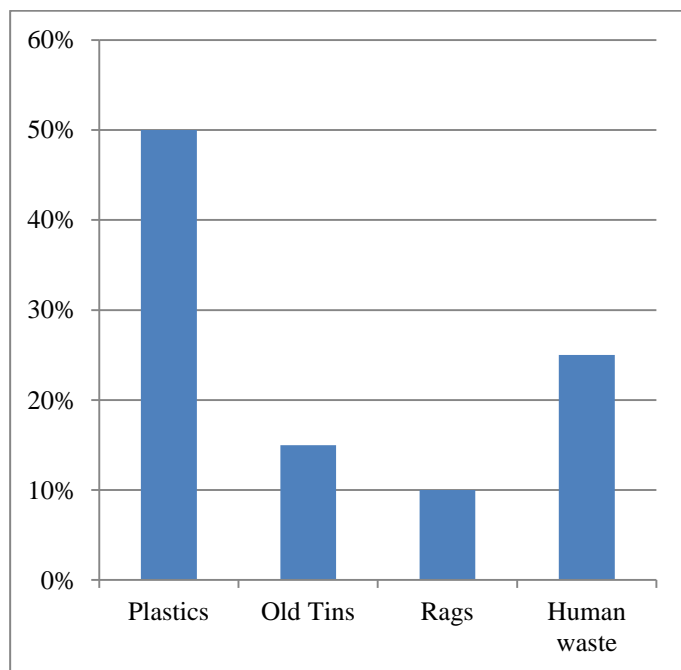
	Veld fires	Cultivation	Homesteads	Buffer zones	Firewood	Total
Veld fires(V)	X	C	V	V	V	3
Cultivation(C)	C	X	C	C	C	4
Homesteads (H)	V	C	X	B	H	1
Buffer zones(B)	V	C	B	X	B	2
Firewood (F)	V	C	H	B	X	0



**Figure-1:** Poaching methods used by local community members.

The pie chart in Figure-1 shows that sixty-five percent of the poachers in Bubiana Conservancy use wire snares followed by twenty-percent who use hunting nets and fifteen-percent who use dogs. However the majority of those interviewed admitted to using all three methods at times. The data obtained through interviews and police reports proves that many animals were killed through wire snares. Police records indicate that most poachers can use up to 10 snares to increase their chances of a catch. According to the National Parks and Wildlife ranger from 2000-2013 they seized fourteen bundles of hunting nets. The Mwenezi Magistrate Court clerk revealed that most poachers tried there had wire snares brought forward as part of the exhibit.

**Impact of fast track land reform program on water pollution:** During the research that plastics comprised approximately 50% of the pollutants in water surfaces. The plastic materials comprised of mainly disposed agro-chemical, beverage, sugar and bread containers. Human waste which comprised approximately 25% of the pollutants was mainly found near residential areas, schools, shopping centers and cattle sale points. Old tins comprised approximate/y 15% of the pollutants followed by rags which comprised approximately 10% of the pollutants.



**Figure-2:** Percentage of items that pollute drinking water by volume.

## Conclusion

There are high levels of wildlife habitat destruction in the area which could be mainly attributed to clearing of land for cultivation, for homesteads and to create buffer zones against wild animals. Poaching is also rife in the area with sixty-five

percent of the poachers in Bubiana Conservancy use wire snares followed by 20% who use hunting nets and fifteen-percent who use dogs. There were also high levels of water pollution with plastics comprised approximately 50% of the pollutants, human waste 25%, old tins 15% and rags approximately 10%.

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