

**THE IMPLEMENTATION OF ENVIRONMENTAL LEGISLATION IN THE  
MUTASA DISTRICT OF ZIMBABWE**

by

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May God bless you all.

## **SUMMARY**

The research focused on the assessment of the effectiveness of the methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. Successful implementation of environmental legislation and any other legislation is determined by various factors. Some of the factors include environmental education, environmental awareness programmes, consistency in implementing environmental legislation, coordination of all stakeholders, willingness of communities to co-operate and the political will by political office bearers. This research revealed that the methods used to implement environmental legislation in the Mutasa district of Zimbabwe are ineffective. Poverty is the main reason for activities leading to environmental degradation. Communities in the Mutasa district of Zimbabwe are ignorant of environmental legislation which govern their activities. Environmental education and environmental awareness programmes are rarely carried out. The political office bearers in the Mutasa district lack the political will to ensure that environmental legislation are enforced.

## **KEY TERMS**

Environmental legislation, implementation methods, assessment, effectiveness, sustainable development, natural resources, gold panning activities, Mutasa district, stream bank agriculture.

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# **CHAPTER 1**

## **GENERAL INTRODUCTION TO THE STUDY**

### **1.1 INTRODUCTION**

The purpose of this research project is to assess the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. In this chapter the background to the study shall be provided, the statement of the problem shall be highlighted and the scope of the research and the demarcation of the period of study shall also be highlighted. Other issues highlighted in this chapter include conceptualization, terminology, methods of data collection, methods of data analysis and interpretation. An overview of the various chapters of the research project shall be provided just before the conclusion.

### **1.2 BACKGROUND TO THE STUDY**

The environmental legislation of the Republic of Zimbabwe (Zimbabwe) can be viewed from a historical perspective. There are three phases which characterize the history of Zimbabwe namely the pre-colonial phase, the colonial phase and the post-colonial phase. The three phases have experienced different social, economic and political settings in the country. These historical phases had different perspectives on the country's environmental policy. Effectiveness of methods used to implement environmental legislation largely depends on the political will of the regime in power and the resources at the regime's disposal. The three phases will now briefly be introduced.

During the pre-colonial phase, that is the period before 1890, environmental legislation was not gazetted. Methods employed to conserve natural resources vested in the various traditional leaders like chiefs and headmen. Traditional taboos, beliefs and customs played a crucial role in nature conservation. In the African traditional religion, forests, rivers and mountains had strong religious significance and as such they were cared for with all due respect (Mbiti 1991:149-152). Only the chiefs and headmen could sanction the appropriate methods to utilize the natural resources in accordance with traditional values. It was the chiefs and headmen who had the mandate to distribute land. Indiscriminate use of natural resources would lead to religious curses like drought or famine. Those who violated the traditional beliefs, customs and taboos would be fined either by paying a goat, a herd of cattle or both. Those who committed serious offenses like putting drugs into dams in order to catch fish or those who cut down trees in sacred places risked being banished from the area. People feared curses from ancestral spirits. They associated misfortunes like deaths, drought, famine or illness with punishment from ancestral spirits. The Africans did not and still do not believe that mishappenings occur without a cause. Such beliefs helped the people of the pre-colonial phase to be steadfast with their consciences and as such they preserved their natural resources (Mbiti 1991:153).

During the colonial phase, from 1890 to 1980, environmental legislation by the colonial regime disregarded traditional beliefs, customs and taboos, for example, sacred places like the Nyanga mountains and the Chinhoyi caves were used as game parks or tourist resort centers instead of traditional sacred places where traditional rituals like rain making ceremonies could be performed. The then colonial political dispensation brought in new

environmental policies. The new environmental legislation was set to meet the values and policies of the colonial masters (Chiwandamira & Mbengo 1999:35). The black indigenous population was ignorant of the newly gazetted environmental laws and also how the laws were to be implemented. Most of the black indigenous people lived in the then “tribal trust lands” (now referred to as communal areas). More so the black indigenous Africans were removed to unsuitable dry areas of the country, like Gokwe, in order to create natural parks, game reserves and European commercial areas all for the enjoyment and benefit of the white elite and international tourists. Traditional structures of the pre-colonial phase were rendered valueless as a result of this. Chiefs and headmen could no longer perform their roles with dignity, pride and effectiveness. They were also subjected to the new policies. Methods used to effect environmental laws were not viewed favourably by the black population. They felt that they had been robbed of their cultural and religious heritage and had also been pushed to the periphery of the colonial regime’s political, economic and social activities. The black population resorted to indiscriminate cutting down of the natural forests and uncontrolled ploughing of the land for survival. This was because they were overcrowded in the unproductive tribal trust lands. Environmental damage increased wherever they went (Chiwandamira & Mbengo 1999:25).

During the post-colonial phase, from 1980 to date, environmental legislation suitable to the new socio-economic and political environment was gradually developed. From 1980 to 2002 environmental acts were seen in various government departments and ministries for example the now repealed *Natural Resources Act, 9 of 1996* was under the Ministry of Mines, Environment and Tourism while the now repealed *Atmospheric Pollution Prevention Act, 31 of*

1996 was under the Ministry of Health and Child Welfare and the *Fertiliser, Farm Feeds and Remedies Act, 27 of 1996* was under the Ministry of Lands and Agriculture (Chiwandamira & Mbengo 1999:48). Methods used to implement the environmental legislation by different government ministries were uncoordinated and lacked uniformity. More so, the legislation was still based on the colonial system of the 1940s (*Summary of the Environmental Management Act, 13 November 2002:2*).

It was in 2002 that consolidated environmental legislation was put in place. *The Environment Management Act, 13 of 2002* (EMA) was the first of its kind in Zimbabwe. It was passed into law in March 2003 and is governed and effected under the Ministry of Environment and Tourism. It was in 1992 after the Earth Summit in Rio de Janeiro in Brazil that the government of Zimbabwe, through the Ministry of Environment and Tourism, initiated a process of environmental law reforms in the country. It was a long process which culminated in the passage of the consolidated EMA after another Earth Summit which was held in Johannesburg, Republic of South Africa, in August 2002. The reforms were aimed at coming up with laws that are more useful in protecting the environment, while at the same time allowing people to use it to meet their present development needs and also the needs of the future generations. In other words the EMA seeks to set environmental standards in an integrated way and it is focused at sustainable utilization of natural resources. According to *the Summary of the Environmental Management Act, 13 of 2002 page 2*, some of the reasons why environmental law reforms were necessary included the following:

- Environmental laws were old and no longer in tune with the way people live and use the environment around them.

- The old laws did not consider the relationship between the different components of the environment that is air, water and land.
- There were overlaps, duplication and sometimes conflict between laws which were being managed by different ministries.
- The fines for causing environmental damage were very low resulting in companies and individuals committing environmental crimes and easily paying the fines instead of finding ways to avoid the damage; and
- environmental issues were not being regarded as part of the rights to which people should be entitled.

The Ministry of the Environment and Tourism has put in place methods through which it would manage the environment and implement environmental laws. The Department of Natural Resources highlights these methods in its mission statement which states:

“To promote sustainable environment and natural resources management in Zimbabwe through environmental monitoring, environmental education, research, environmental planning and enforcement of environmental laws” (Department of Natural Resources, Zimbabwe 2005:1-2).

From the mission statement above the methods to implement environmental legislation have been highlighted as follows:

- To monitor sustainable utilization of the environment.
- To educate the population about environmental issues.

- To carry out research on how best to utilize the environment with optimum benefits and minimum damage for the sake of current and future generations.
- To plan the correct use of the environment; and
- to improve environmental laws.

Now that the consolidated EMA is in place and that methods of implementing environmental legislation have been highlighted above, all operating in a new social, economic and political setting, this research seeks to assess the effectiveness of the methods used to implement environmental legislation in Zimbabwe with specific reference to the Mutasa district. (See Appendix 1 for map of Mutasa district).

### **1.3 STATEMENT OF THE PROBLEM**

Natural resources provide a life support system for people and animals the world over. Sustainable utilization of the natural resources would not only benefit the present generation but also the future generations. Comprehensive and consolidated environmental management legislation is a prerequisite for most countries including Zimbabwe. Such legislation would help to ensure environmental justice, to control activities leading to environmental degradation and to enhance the prosecution of offenders of environmental laws.

As previously stated, Zimbabwe now has consolidated environmental legislation, the EMA. This is a positive development towards environmental justice in the country especially when it is under one established government ministry, the Ministry of Environment and Tourism. Section 4 (2) of the EMA provides eight general principles

which apply to the activities of all persons and all government agencies involved in environmental management:

- All elements of the environment are linked and environmental management must be integrated.
- People and their needs should be put at the forefront of environmental management.
- All people should participate in environmental governance.
- Communities must be made aware of environmental aspects through environmental education.
- Development must be socially, environmentally and economically sustainable.
- Negative effects on the environment and people's rights that are anticipated should be prevented and where it is not possible to prevent the negative impacts, they should be minimized and remedied.
- Any person who cause pollution or environmental degradation shall meet the cost of correcting such environmental pollution or degradation; and
- national interests should be followed in complying with international treaties, standards and other responsibilities.

The above principles complement the methods of implementing environmental legislation as highlighted in the mission statement of the Department of Natural Resources in the foregoing paragraphs. Chiwandamira and Mbengo (1999:35) argue that the existing environmental law system in Zimbabwe is largely one of "command and control" where laws are used to control certain activities. This confirms that laws can be used to effectively command and control systems of certain activities like illegal gold panning and indiscriminate cutting down of the natural forests. Methods used to



control certain activities must be effective, resources to effect the control system must be made available and there must be the political will from the political authorities. Politicians determine the course of activities in any given country. They have the mandate and right to make policy which suits their political ambitions. In matters concerning environmental management, the willingness of politicians to seriously consider the value of the natural resources in life is of paramount importance. Such willingness is basically noticed when environmental policies are meaningfully and purposefully implemented using effective methods.

In view of the above observations, the main problem to be addressed by this research will therefore be:

How effective are the methods used to implement environmental legislation in the Mutasa district of Zimbabwe?

#### **1.4 SCOPE OF THE RESEARCH AND DEMARCATION OF THE PERIOD OF STUDY**

The point of focus in this research is to assess the effectiveness of the methods used to implement environmental laws in Zimbabwe with particular reference to the Mutasa district. Assessment of methods used to implement environmental legislation during the pre-colonial phase (i.e. the period before 1890) and the colonial phase (i.e. from 1890 to 1980) helped the researcher to develop background insight with regards to the development of methods used to implement environmental legislation in post-colonial Zimbabwe (i.e. the period from 1980 to date).

The focus of the assessment will be on the post-colonial phase from 1980 to date. The post-colonial phase has a different social, economic and political setting. The prevalence of uncontrolled and unsustainable utilization of natural resources through practices such as illegal gold panning, stream bank agriculture, indiscriminate cutting down of trees and burning of grass leads to serious environmental degradation. It is for this reason that this research will assess the effectiveness of the methods used to implement environmental legislation in the Mutasa district of Zimbabwe. The researcher chose Mutasa district as a point of reference for the research because the district has one of the highest experiences of activities which are likely to cause environmental degradation. Activities such as gold panning, land redistribution and resettlement are common experiences in the district. The researcher also teaches at a school in the Mutasa district and this makes it most convenient in terms of time and resources.

## **1.5 CONCEPTUALISATION**

While the EMA is the first consolidated environmental legislation in Zimbabwe, the point of focus in this research is to assess the effectiveness of the methods used in the implementation of environmental legislation in the Mutasa district. A number of factors can lead to non-compliance of environmental legislation and any other legislation. Ineffective methods used to implement the legislation, lack of environmental expertise and lack of knowledge of either the legislation or the requirements of the legislation can lead to non-compliance of the environmental legislation (Shava 2003:129-134). The result is unsustainable utilization of limited natural resources. Activities harmful to the environment destroy the physical condition upon which life support systems are based (Miller

1996:7). There is a need to institute effective methods when implementing environmental legislation.

The assumption in this research is that methods set to implement environmental legislation in the Mutasa district of Zimbabwe are not effective. Unsustainable utilization of natural resources remain the country's major cause for concern.

Section 5 of the EMA provides that the Minister of the Environment and Tourism should perform general regulatory functions which are aimed at sustainable utilization of the environment by all stakeholders. Those who cause environmental harm will meet the cost of remedying that harm. The regulatory functions and the eight general principles (stated in section 1.2 above) are complementary, they are aimed at sustainable development and utilization of the natural resources.

As mentioned earlier, this research seeks to assess the effectiveness of the methods used in the implementation of environmental legislation in Zimbabwe with specific reference to the Mutasa district. Before getting into the process of data collection, the researcher will seek permission from Mutasa rural district council as it is the responsible authority in whose area of jurisdiction the research is being carried out. The researcher will also seek permission from the Zimbabwe Republic Police in the Mutasa district because they are the law enforcement agents within the area of reference for the research and the researcher will also seek permission from the Ministry of Environment and Tourism since it is the Ministry within which the research is being carried out.

## **1.6 TERMINOLOGY**

The following terms are pertinent to the research and are therefore defined below:

### **1.6.1 Colonial phase**

The period when Zimbabwe was under colonial rule by the British, i.e. the period between 1890 and 1980 (Nziramasaanga 1999: 36).

### **1.6.2 Environment**

The aggregate of surrounding things, conditions or influences (Fuggle & Rabie 1998: 85).

### **1.6.3 Environmental legislation**

Laws governing the sustainable use of natural resources such as air, minerals, water, soil and vegetation (Artikinson 1972: 48).

### **1.6.4 Environmental policy**

A guide of action or statement of goals that should be followed to ensure that environmental issues or problems are addressed timeously (Fox and Meyer 1995:96).

### **1.6.5 Implement**

To put into effect, such as laws, according to or by means of a definite plan or procedure (Chiwandamira & Mbengo 1999: 86).

### **1.6.6 Legislation**

Laws or statutes enacted, such as laws enacted in order to control the utilization of natural resources ( Burch & Wood 1990: 56).

### **1.6.7 Method**

A plan or a system of action, usually put in place in order to achieve an objective ( Babbie 1983:96).

### **1.6.8 Natural resources**

Products and features of the earth that permit it to support life and satisfy people's needs, such features as air, vegetation, minerals and soil ( Miller 1996: 15).

### **1.6.9 Policy**

A statement of goals and intentions with respect to a particular problem or goals and objectives within a given situation and the methods to realize them (Fox & Meyer 1995:96).

### **1.6.10 Post-colonial phase**

The period after the colonial phase, that is the period from 1980, when Zimbabwe became independent, to date (Nziramasanga 1999:38).

### **1.6.11 Pre-colonial phase**

The period before the colonization of Zimbabwe, that is the period before 1890 (Nziramasanga 1999:34).

### **1.6.12 Sustainable development**

Undestructive use of natural resources for the purpose of improving human life for the sake of the present and future generations (Miller 1996:14).

## 1.7 METHODS OF DATA COLLECTION

In order to capture data for this research, various sources were consulted. Primary and secondary sources were among the key sources. Primary research was carried out by way of a qualitative study. The sample population included a random selection of Ministry of the Environment and Tourism personnel, Mutasa rural district council officials, Zimbabwe Republic Police officers (ZRP) from Penhalonga police camp and Ruda police camp in the Mutasa district, gold panners, resettled farmers, housewives and some ordinary Zimbabwean citizens in the Mutasa district. Interviews were conducted with the illiterate members of the sample population like some gold panners, resettled farmers, housewives and some ordinary Zimbabwean citizens in the Mutasa district. Questionnaires were sent out to the randomly selected sample population. The use of the questionnaire was preferred because it helped in the confirmation of confidentiality. A detailed description of the methods used to collect data is provided in chapter four (*infra* : section 4.5).

Secondary sources included data from relevant literature such as text books, newspapers, journals, newsletters and periodicals. Relevant speeches from public officials and political office bearers also provided useful data to the study. Data elicited through secondary sources was insufficient to fulfill the objectives of this study and for the purpose of applying it to the Zimbabwean situation, so it was used to complement data elicited through the aforementioned primary sources. Relevant literature focusing on Zimbabwe's environmental management systems and Zimbabwe's environmental laws made the research more applicable to Zimbabwe. The data collected through the various sources like primary sources and secondary sources was analysed and interpreted (Borg & Gall 1983:436-438).

## **1.8 METHODS OF DATA ANALYSIS AND INTERPRETATION**

When all the necessary data had been collected the researcher carefully studied the responses and arranged them in categories of similar responses. Similar responses of each of the aforementioned groups were put in tabular form and expressed as a percentage of the total participants per group. A final table which comprised the percentage responses of all the groups was drawn up and the responses of the groups were drawn and response averages were recorded.

When all the tables were drawn and the data had been analysed, the documents were interpreted in response to the research problem. It was from this interpretation that the researcher was able to ascertain the effectiveness of the methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. A detailed description of the methods used to analyse and interpret data is provided under research methodology in chapter four (*infra*: section 4.6).

Conclusions and proposals were suggested to the relevant authorities for possible further investigations, improvements and implementation.

## **1.9 OVERVIEW OF CHAPTERS**

The following is an overview of the various chapters.

### **CHAPTER 1**

This chapter will provide a general introduction to the entire research. It will include background information to the study, statement of the problem, the scope of the research and demarcation of the period of study, conceptualization, terminology, methods of data collection, methods of data analysis and interpretation and an overview of chapters in the study.

### **CHAPTER 2**

In chapter two a general overview of the concept of public policy, policy-making process, theories on public policy and environmental legislation in Zimbabwe as public policy will be provided. The emphasis will be on implementation of public policy as a component of the policy making process.

### **CHAPTER 3**

In chapter three a description of the history of environmental policy in Zimbabwe will be provided. Each of the components of the policy-making process as provided in chapter two will also be described in the light of how it is disseminated to local communities in Zimbabwe, how it manifests itself in the Mutasa district of Zimbabwe and how it is implemented in the latter district. Institutions involved in the implementation of environmental legislation and the methods used to implement the environmental legislation in the Mutasa district of Zimbabwe will also be highlighted.



#### **CHAPTER 4**

In chapter four the research design will be described, the population sample will be highlighted and the research instruments will also be explained. Data collection procedure and the data analysis plan will be described just before the conclusion.

#### **CHAPTER 5**

In chapter five data from research findings will be presented, analysed and interpreted. Tables will be used to record the findings and the findings will be expressed as percentages.

#### **CHAPTER 6**

A summary of the entire study will be provided in chapter six and conclusions and proposals will be made.

#### **1.10 CONCLUSION**

In this chapter the background to the study, the statement of the problem, scope of the research and demarcation of the period of study, conceptualization, terminology, methods of data collection, methods of data analysis and interpretation and an overview of chapters were provided and highlighted. An analysis of the nature of the policy-making process shall be provided in the next chapter. In the analysis the concept of public policy, policy-making process, theories on public policy and environmental legislation in Zimbabwe as public policy shall be highlighted.

## **CHAPTER 2**

### **NATURE OF THE POLICY-MAKING PROCESS**

#### **2.1 INTRODUCTION**

Natural resources provide a comprehensive life support system for all living organisms. It is imperative that all natural resources are properly managed and sustainably utilized. This is basically possible if a comprehensive and consolidated environmental policy is put in place. All stakeholders concerned with the management and utilization of the environment have to acquaint themselves with the existing environmental policies and methods used to implement them. Environmental policies are sometimes made to address environmental problems arising in communities such as land degradation, pollution and erosion and they constitute public policy because such problems affect communities. The EMA as mentioned in chapter one is an example of public policy aimed at addressing environmental problems in Zimbabwe. Certain procedures have to be followed in order to have a policy. Such procedures constitute the policy-making process.

In this chapter an analysis of the nature of the policy-making process shall be made. In the analysis, the concept of public policy, the policy-making process, theories on public policy and environmental legislation in Zimbabwe as public policy shall be highlighted.

## **2.2 CONCEPT OF PUBLIC POLICY**

Public policy comprises authoritative statements which are formulated by the government and approved by parliament and which can manifest in the form of laws, white papers and even the national budget. Public policy can be formulated at national level, provincial level and local level. It results in the establishment of acts, ordinances, by-laws and regulations which also bear relevance to environmental affairs. Public policy formulation is a public administration function in that its main objective is to improve the quality of life in communities and to ensure sustainable utilization of the limited natural resources. In the Mutasa district of Zimbabwe and for the purpose of this research the main problem to be addressed by means of public policy formulation is the prevention of environmental degradation. Environmental degradation in the Mutasa district of Zimbabwe is being perpetuated by irresponsible activities like gold panning, stream bank agriculture, burning down of the veld and the indiscriminate cutting down of trees for sale as firewood (Mtisi 2004:1).

Public policy has been defined by various authorities. Fox and Meyer (1995:107) defined public policy as authoritative statements made by legitimate public institutions about the way in which they propose to deal with policy problems. Nagel (1984:3) defined policy as decisions by government designed to deal with various social problems such as environmental protection, crime and unemployment. The two sources cited above indicate and agree that public policy is designed to deal with problems affecting the public. Those in authority like political office bearers, the government, municipal and local authorities like the Mutasa rural district council are empowered by virtue of their authoritative position to provide policy within which the public

should operate as enshrined in the Constitution of the Republic of Zimbabwe of 1996, the Urban Councils Act, 19 of 1985 (Chapter 29:15) and the Regional Town and Country Planning Act, 136 of 1992 (Chapter 29:12) respectively. In order for political office bearers to make and provide policy, especially environmental policy, they need the political will to do so.

Dye (1992:2) defined public policy in a brief and simple way as whatever governments choose to do or not to do. Dye's definition implies that governments have the mandate of choice. Governments may choose to act on problems or to let problems continue. What determines the governments' decision can be twofold, the availability of resources including the technical knowledge and the political will to address the problems. Problems have to be approved and their authenticity justified by legislators or other empowered authorities in order to be actioned (Cloete 1987:22). Legislators representing constituencies in the Mutasa district and the Mutasa rural district council as a local authority have to address the problem of environmental degradation in the Mutasa district. The authorities in the Mutasa district and the legislators have to define and analyse problems affecting the public within the district in order to place them on the policy agenda as they make their policies.

Parsons (1995:xv) quotes Dewey who summarizes public policy as "... the public and its problems ...". This means problems are not dissociated from the public. Problems emanate within communities, they are either caused by nature or by the people. Public policy has to be formulated, adopted and implemented (Starling 1988:4,5). It is those in authority and who have the mandate from the public who should ensure that public policy has been formulated, adopted and implemented for the benefit of the public.

Having described the concept of public policy in the foregoing paragraphs, the policy-making process will be described in the next section.

### **2.3 POLICY-MAKING PROCESS**

The ultimate objective of public policy is to address the problem that arise in the communities meaningfully. The policy-making process promotes the attainment of the objective of public policy in that certain management techniques are implemented, planning activities are utilized and decisions are taken continually and timeously to eliminate social problems. In other words, the policy-making process involves making decisions about the general direction in which progress, change, maintenance or development should occur (Odendaal 2004:5). Thornhill and Hanekom (1995:54) concurred with Odendaal when they wrote that the policy-making process refers to the function preceding the announcement of goals and the measures for goal realization. During the policy-making process consideration must be made of various factors that affect the process. It is imperative to first consider the policy environment during the policy-making process. Dunn (1994:70), Fox and Meyer (1995:97) and Odendaal (2004:19) agree that the policy environment is the specific context in which events that surround a policy problem occur for example the physical, political, economic and social environment. Policy-makers have to take into account environmental changes that may influence policy-making. Environmental changes are caused by such factors as change of political ideologies which result in new political policies, climate and weather changes, changes in economic policies and changes in social preferences due to changes in the socio-economic status of the general public. Rational decisions also complicate the policy-making process. Harrison (1981:121) explains how rationality complicates the policy-making process. Firstly,

subjectivity of the participants complicates the policy-making process for example, genuine problems like the need for road maintenance emanating from a less influential community may not receive priority on the policy agenda. Secondly, Harrison (1981:121) indicates various stumbling blocks in the way of rationality such as the motivation of policy-makers, communication problems, limitations in respect of time and costs and the perceptions and nature of policy-makers. The other factor that complicates the policy-making process is the number of participants involved. Participants may be directly or indirectly involved. Anderson as quoted in Odendaal (2004:24) indicates that participants involved in public policy-making can be classified as official policy-makers and unofficial policy-makers. Official policy-makers are those with the legal authority to participate in the policy-making process like political office bearers and public officials, while unofficial policy-makers are those without the legal mandate to do so like interest groups and influential members of society. The degree of influence of the unofficial policy makers in the policy-making process is highlighted by Thornhill and Hanekom (1995:64) when they stated that government's acceptance of the recommendations of committees and commissions of enquiry and the inclusion of those recommendations in legislation is proof that institutions outside the framework of the official policy-makers are also involved in the policy-making process. In fact the policy-making process is everybody's business. The official policy-makers listen to problems affecting communities and make policies to solve them. In this way the public is officially or unofficially involved in the policy-making process. However, in the process of policy-making, politicians ensure that they safeguard their political position whilst at the same time address problems affecting their communities.

The process of public policy-making is made up of various components. Hogwood and Gunn (1991:24) and Odendaal (2004:29) outlined the components of the policy-making process as follows:

- Problem identification and deciding on the agenda.
- Policy formulation.
- Policy implementation.
- Policy evaluation, and
- Feedback.

The first component of the policy-making process is to identify the problems and to decide on the agenda status. For reasons mentioned in the foregoing paragraphs some problems do not attain agenda status. Anderson (2003:81) defined a problem as a situation or a condition that may give rise to a need. A problem is considered a public problem when a group of individuals or the whole community like Mutasa district is affected by such a situation or a need. In the process of defining various problems with communities policy-makers have to establish problems that require urgent attention. Such problems will be given priority on the policy agenda. According to Edwards and Sharkansky (1978:47) a policy agenda includes all those issues that have been selected by policy-makers from a variety of problems. Prioritization is required because not all problems will receive equal attention due to lack of enough resources, both human and financial. Other problems may not receive attention because they are either not well defined or they are merely symptoms of the real problems. Starling (1988:13) concurs with Edwards and Sharkansky (1978:47) when they stated that once the policy problems have been identified and defined they are placed on the policy agenda where they are given closer attention. Before policy-makers can consider an issue the unofficial policy-makers mentioned in the foregoing

paragraphs can also draw the attention of the official policy-makers to issues that may be placed on the policy agenda.

The second component of the policy-making process is policy formulation. Fox and Meyer (1995:97) defined policy formulation as the development and synthesis of alternative solutions for policy problems. Policy formulation takes place on policy issues that have attained agenda status. It has to do with the developments of clear and acceptable methods of action to arrive at clearly defined proposals in order to formulate detailed policies (Odendaal 2004:47). In order to develop clear and acceptable methods of action policy-makers need to have policy objectives first. Nagel (1984:1) defined policy objective as the goal that should be realized by means of a policy, for example the objective to stop environmental degradation in the Mutasa district of Zimbabwe. Formulation of policy objectives starts with a number of decisions being made and the selection of the appropriate policy objective from possible alternatives (Odendaal 2004:47). Successful formulation of policy objectives involves a series of actions which may eventually lead to the formulation of policy (Eyestone 1984:1). It is also important to make the best policy objective in order to solve the real problem that has been identified. Once a wrong policy objective has been made it leads to wrong policy formulation. When a wrong policy has been formulated it does not address the original problem.

In order to ensure that policy objectives lead to effective and efficient policy formulation there is a need for wide consultation and interaction between policy-makers. Burch and Wood (1990:15) argue that wide consultation and interaction helps in the formulation of detailed policy. During the interaction process a wide number of participants are involved either directly or indirectly. However, the



government of the day determines the broad policy framework according to its party political policy but relevant committees, experts and officials have the mandate to fine-tune the policy. Unofficial policy-makers like interest groups, for example the Zimbabwe Environmental Law Association (ZELA) and Environment Africa, committees and commissions may also make proposals and recommendations which can eventually lead to policy formulation as highlighted in the foregoing paragraphs.

When policy has been formulated it has to be adopted. Policy adoption involves official approval of policy proposals as expressed in policy objectives (Fox and Meyer 1995:97). The same participants who are involved in policy formulation are also involved in policy adoption. The executive authority and legislators are vested with the authority to make decisions on policy adoption (Anderson 2003:128-134). The final selection of policy must be based on the belief that the policy will benefit the community as it addresses the original problem which gave rise to the formulation of the policy. When the policy has been formulated, adopted and approved it has to be implemented.

Policy implementation is a major component of the policy-making process. Various authorities have defined policy implementation in various ways. These definitions will now be briefly analysed. Fox and Meyer (1995:97) defined policy implementation as the execution and steering of policy actions over time. Anderson (2003:193) described policy implementation as what happens after a bill becomes law whereas Eyestone (1984:271) describes the policy implementation phase as the development of techniques and procedures for the realization of policy in practice. Burch and Wood (1990:15) refer to policy implementation as the execution of policy while Quade (1989:338) regards policy implementation as a process whereby patterns of behaviour are changed and adopted in order to carry out

policy decisions. According to Hanekom (1992:60) and Peters (1982:6-10) public policy implementation usually takes place through enforcing laws to ensure compliance, providing services and money and through taxing and tax incentives. From the foregoing definitions it can be deduced that policy implementation is the process of putting into action what has been formulated, agreed to and adopted as policy. It involves transforming what has been theoretically adopted into practice over a given period. The process of policy implementation needs careful planning. The structures within which policy implementation takes place must be well defined and those who are involved in the implementation process must be clearly identified and well informed.

Various factors affect successful implementation of policy. In the first place policy objectives must be clearly formulated and defined, policy implementers have to know what is to be implemented. They also have to be motivated and dedicated to the implementation process. Lack of support from local communities hinder successful implementation of policy. Structures within which the implementation process takes place must be legitimate so that implementers are able to co-operate. Sometimes lack of financial and material resources complicates successful implementation of policy. Similarly, lack of expert knowledge also hinders successful implementation of policy. If a policy to be implemented does not have the support from influential political leaders, influential individuals from the community and interest groups it may not be easily implemented (Parsons 1995:486).

Lack of effective methods to implement the policy hinders successful implementation of policy. Methods chosen to implement policy must be clearly defined and made known to all policy implementers. Policy

implementation methods must be relatively easy to understand and follow. Programmes set up to implement policy must be well managed and implementers must monitor the implementation process against possible changes and against possible deviation from the original objective. In the implementation process it is important to constantly assess the impact of the implementation process on other features for example, constructing a dam in a residential area would impact negatively on the residents of the same area. In some cases policy implementation requires some form of enforcement in case it is resisted. In Zimbabwe, particularly in the Mutasa district, gold panners and some communal and resettled farmers resist the implementation of environmental policy and continue to degrade the environment as they search for gold and carry out stream bank agriculture respectively. Law enforcement agencies such as the police need to assist policy implementers by enforcing environmental laws. Hanekom (1992:57-58) indicated that apart from public managers who are regarded as key functionaries in the implementation of public policies, specific public institutions are also actively involved in policy implementation. Public institutions which are actively involved in policy implementation include the legislators, the courts of law, the interest-groups, community institutions and government departments. There is need for communal relationship between political office bearers who are official policy-makers, policy implementers and the law enforcement agencies if the process of policy implementation is to succeed. Prosecution of offenders of environmental policy is only meaningful when there is political will to effectively and efficiently implement the policy. Law enforcement agencies are rendered harmless if politicians for instance condone activities leading to environmental degradation.

When policy has been implemented it has to be evaluated. Successful implementation of policy is only meaningful once the effect of the policy has been evaluated (Odendaal 2004:58). Policy evaluation is used to determine the extent to which a particular policy has been efficient, effective, fair and appropriate. Policy evaluation does not, however, take place at the end of the policy-making process only, it also takes place at each stage of the policy-making process. Evaluating policy at every stage of the policy-making process helps to ensure efficiency, effectiveness, fairness and appropriateness of the policy. The need for remedial attention is noticed and attended to timeously. Evaluating policy only at the end of the policy-making process also helps to determine whether the original problem has been fully addressed and whether the implementation process has been effective.

Sometimes policy evaluators are confronted with complex challenges which disturb the evaluation process. Changes in the environment within which policy evaluation is taking place may mean the policy becomes obsolete (Quade 1989:284). The same environmental factors that may affect the formulation of policy objectives as cited in the foregoing paragraphs also affect evaluation of environmental policy. What is considered a problem in a given environment is not necessarily considered as such in a different environment, for example the land policy in Zimbabwe during the colonial phase was different from the land policy of the post colonial period. It is therefore not easy to evaluate the success or failure of a policy when the environment has changed. On the other hand policy evaluation may prove that a particular policy is not successful, its disadvantages outweigh its advantages, but policy-makers may still prefer to ignore the results presented by the evaluators (Dye 1992:378). Normally policy evaluators are experts who are not influenced by political

decisions. On the contrary, policy-makers are usually politicians who are influenced by their political desires. Policy evaluation results are usually ignored by policy-makers irrespective of their consequences on the public as long as such results promote the political ambitions of the political leaders of the day.

When policy has been evaluated feedback of the evaluation results is essential. Feedback is given to those who made the policy which was being implemented and evaluated. It leads to either of the following actions, terminating the policy, maintaining the policy, replacing the policy or policy innovation (Odendaal 2004:63,64). A policy may be terminated due to various reasons. Inadequate resources, environmental changes and lack of expert knowledge are some of the factors which may lead to the termination of policy for example, in the Mutasa district the policy to resurface tarred roads once every five years has been terminated due to financial constraints. The spraying of areas infested with mosquitoes like Honde valley and Penhalonga annually has also been suspended. It is only done whenever the resources are available. A policy is maintained when evaluation results are favourable. Some of the factors leading to the maintenance of policy include availability of financial resources, compliance from all stakeholders including the relevant communities and availability of expert knowledge. A policy may be replaced or innovated when policy objectives do not address the real problem for which the policy was formulated. A refocus is made on the real problem to be solved and either the policy is replaced or innovated.

After having described the policy-making process in this section the following section briefly describes some theories on public policy.

## **2.4 THEORIES ON PUBLIC POLICY**

A number of theories on public policy have been developed. In this research the rational choice theory, the public choice theory and the interest-group theory will be analysed. Rational choice theory, like the decision theory, is a way of looking at deliberations between a number of alternatives in the light of their possible consequences in order to decide which course of action to take (Shroeder 2006:11). Rational choice theory gives decision-makers the opportunity and models of ranking alternatives with the aim of choosing the alternative with the highest expected utility. In order to arrive at the most appropriate alternative each of the various alternatives is weighed against its possible consequences and risks. An alternative is given first preference if its consequences and risks are minimal.

The rational choice theory is useful in the policy-making process when deciding on the agenda status of an identified problem. Not all problems identified will be solved simultaneously. It is the problem which needs urgent attention and which has the least expected risks and maximum benefits that will be attended to first. When decisions are made to identify a problem for actioning the rational choice theory is used consciously or unconsciously. Even when formulating policy, the rational choice theory is used to decide on the best policy objective which will address the real problem. When various methods of policy implementation are put in place, policy-makers use the rational choice theory to decide which method will be most effective in the light of the problem in question. In the Mutasa district of Zimbabwe, the method which will effectively help to minimize environmental degradation at minimal cost would be most preferable.

A variety of methods needed to effectively implement environmental legislation in the Mutasa district of Zimbabwe can be suggested and ranked according to their expected effectiveness. According to the rational choice theory the method which is hoped to provide the maximum effectiveness and benefits will be given first priority.

Another theory used in the policy-making process is the public choice theory. It is used in the policy-making process to analyse people's actions in collective decision-making. It provides insights into how public decision-making occurs. It is also used to analyse the rules that guide the collective decision-making process and to study the behaviour of politicians and government officials (Olson 1965:145). Public choice theory assumes that politicians seem to have concern for others while in reality their decisions help them to ensure that their self interests are met for example sometimes politicians choose not to implement environmental laws in order to gain the vote from the public. In Zimbabwe many a times politicians condone activities leading to environmental degradation during election times because stopping such activities would cost them votes (Mtisi 2004:1). Public choice theory also assumes that legislators make decisions on how to use other people's resources in order for them to gain support from the public. Legislators do not usually own what they provide to the public instead they facilitate what the public wants (Olson 1965:145). Decisions of legislators are basically determined by their interest with the community in question and their ability to facilitate for the community. Mueller (1989:79) adds on to say in order for government to provide what the public demands it organizes interest groups to work on its behalf. In Zimbabwe, organizations such as Environment Africa and the Zimbabwe Environmental Law Association have been mandated by government to provide environmental education to the public. These organizations complement government's effort to

educate communities like those in the Mutasa district on environmental issues. In order for government to effectively correct a problem affecting the public it is best done at local level whenever possible. When decisions are made in the public interest they would be unanimously supported by the public. The public choice theory is often referred to when discussing how individual political decision-making results in policy that conflicts with the desires of the general public (Black 1958:14).

The public choice theory has two facets, that is, the positive public choice theory and the normative public choice theory. The positive public choice theory focuses on what government policies are likely to be implemented in a given political setting. Environmental policies are developed and implemented according to the willingness of the government of the day. The normative public choice theory considers what policies would produce the desirable outcomes if they were implemented (Downs 1957:167). The public choice theory assumes that special interests drive the formulation of legislation. This assumption implies that environmental legislation is a product of special interest. Either government develops a special interest in nature conservation or such interest is developed by environmental interest groups (Mueller 1989:79). In Zimbabwe the development of environmental legislation has been the result of efforts from both the government and the environmental interest groups mentioned in the foregoing paragraphs.

Another theory on environmental management is the interest-group theory. Tollison (1998:1) referred to the interest-group theory of government when he argued that it started as a generalized idea about how the organized “few” can win favours from government at the expense of the unorganized “many.” The basic idea of the



interest-group theory is that government activities are viewed as a process in which wealth or utility is redistributed among individuals and groups. Similarly, in this research the interest-group theory is used to describe the distribution of natural resources among communities and nations. Tapfumaneyi (2006:12) stressed that life on earth, from the smallest parasite to the human race, is possible due to the availability of natural resources such as air, water, trees and soil. There is a need to carefully manage and sustainably utilize the natural resources for the sake of all forms of life.

According to the interest-group theory the organized “few” represents those who are effective at organizing and engaging in collective action such that they are able to organize for less in order to produce more. They are able to utilize limited resources sustainably. The earth’s natural resources are limited. People must benefit from them without degradation. In order not to degrade our natural resources people must represent the organized “few” by organizing themselves collectively and come up with environmental legislation which will ensure sustainable utilization of the limited natural resources. When the limited natural resources are used sustainably the current and future generations will both benefit.

The unorganized “many” as portrayed in the interest-group theory represents those who need more than a dollar in order to get a dollar (Tollison 1998:1). In this research the unorganized “many” represents those who need more resources than nature can provide. They seem not to understand that the rate at which natural resources replenish themselves is low. They engage in activities which degrade the natural resources and they do not respect environmental laws.

After having briefly analysed theories on environmental legislation, environmental legislation in Zimbabwe as public policy will be described in the next section.

## **2.5 ENVIRONMENTAL LEGISLATION IN ZIMBABWE AS PUBLIC POLICY**

Public policy is a public management function and is made by legally sanctioned public institutions such as government and parliament at national, provincial and local levels. They result in the establishment of acts, by-laws and regulations. Policies are considered public when they affect a group of individuals or the whole community. Environmental degradation, air and water pollution are problems affecting all communities in Zimbabwe and as such they need to be addressed by public policy.

During the post-colonial phase in Zimbabwe, from 1980, various environmental policies were either formulated or amended. The Ministry of Environment and Tourism was established to manage environmental issues in the country (Environmental Justice in Zimbabwe, Volume I of May 2004:1). It is through the Ministry of Environment and Tourism that environmental policy in Zimbabwe are established and approved by parliament. Since 1980 some of the main policy developments that have taken place in Zimbabwe include:

- The National Conservation Strategy.
- Wildlife policy.
- Environmental impact and assessment policy; and
- national action programme on desertification (Mohamed-Katerere & Chenje 2002:30).

During the same period some policies such as the land policy, the agricultural policy and the forest policy have been developed for the purpose of managing the environment. They have been developed in the form of legislation such as the *Forest Act, 12 of 1984*, the *Natural Resources Act, 9 of 1996* and the *Environmental Management Act, 13 of 2002 (EMA)*. As highlighted in chapter one (*supra*: section 1.1) the EMA is a consolidated environmental legislative measure which is meant to be an inclusive and the overall environmental legislation in Zimbabwe. After the promulgation of the EMA in 2002, some acts that had to do with environmental management had to be repealed and these include:

- *Natural Resources Act, 9 of 1996.*
- *Atmospheric Pollution Prevention Act, 31 of 1996.*
- *Hazards Substances and Articles Act, 76 of 1996; and*
- *Noxious Weeds Act, 16 of 1993* (Mohamed-Katerere & Chenje 2002:54).

The repealed acts are now incorporated and integrated into the EMA. Since 1980 the following legislation which deal with environmental management have been amended:

- *Forests Act, 12 of 1984.*
- *Parks and Wildlife Act, 14 of 1972.*
- *Rural District councils Act, 29 of 1986; and*
- *Urban Councils Act, 19 of 1985* (Mohamed-Katerere & Chenje 2002:55).

Amendment of legislation is meant to ensure consistency with current social, economic and political demands of the country. Repealing of environmental management acts is a way of building universal national environmental legislation like the EMA. Section 9 of the EMA provides that the Minister of Environment and Tourism

should establish an Environmental Management Agency whose duty is to formulate quality standards on air, water, soil noise, vibration, radiation and waste management. The agency also has the duty to assist and participate in any matters pertaining to the management of the environment such as:

- Developing guidelines for the preparation of the national plan, environmental management plans and local environmental action plans.
- Regulate and monitor the collection, disposal, treatment and recycling of water.
- Monitor and regulate discharge or emission of pollutions or hazardous substances into the environment.
- To make by-laws within the jurisdiction of local authorities.
- To advice government on conventions and treaties which should be incorporated into national law; and
- to regulate, monitor, review and approve environmental impact assessments (*Summary of the Environmental Management Act, 13 November 2002:15-16*).

In order for the Environmental Management Agency to function effectively, section 1.1 of the EMA provides that the Minister of Environment and Tourism should form an Environment Management Board whose duty is to control and manage the Environmental Management Agency. The Ministry of Environment and Tourism has a duty to assist local authorities like Mutasa rural district council to make by-laws which are not at variance with the national environmental policy.

Environmental policy in Zimbabwe is public policy because it is determined by legally sanctioned public institutions such as the government, parliament and through the Ministry of Environment

and Tourism, and is meant to address problems affecting communities in the country.

## **2.6 CONCLUSION**

In this chapter the concept of public policy and the policy-making process have been described. Some theories on public policy, the rational choice theory, the public choice theory and the interest-group theory were briefly analysed in relationship to their relevance to public policy. Public policy has been defined by various authorities as highlighted in this chapter. The aim of public policy is to address problems arising within communities like the problem of environmental degradation in the Mutasa district of Zimbabwe. The central component of public policy is that it comprises authoritative statements which are approved by parliament. The policy-making process as discussed in this chapter refers to the steps being taken to establish public policy. Policy implementation is one of the key components of the policy-making process described in this chapter. It is the process of transforming theory into practice. Some factors which affect successful implementation of public policy were also discussed in this chapter. Two of the major factors which affect successful implementation of public policy are lack of political will by political officials and environmental changes. Environmental legislation in Zimbabwe as public policy was highlighted, emphasis was on the various environmental policies which were either formulated or amended during the post-colonial period. Most of the environmental policies are now incorporated into the EMA.

In the next chapter a description of the history of environmental policy in Zimbabwe will be provided. Problems and challenges with regard to the environmental policy-making and implementation as

experienced in the past will be highlighted. Each of the various components of the policy-making process as described in this chapter will be described according to how it is applied, implemented and how it manifests itself in the Mutasa district of Zimbabwe.

## **CHAPTER 3**

### **ENVIRONMENTAL POLICY IN ZIMBABWE**

#### **3.1 INTRODUCTION**

Zimbabwe's national environmental policy has to be closely linked to the country's overall development policy and plan. The country's challenges in the process of making environmental policy are twofold. It has to break the legacy left behind by years of colonialism, whilst at the same time it has to respond to the current social, political and economic realities. A legal system that supports environmental and ecological conservation and integrity must be developed. Such a legal system must simultaneously address the relationship between people, environment and prosperity. A most central political and social policy in Zimbabwe is to provide a legal and policy framework that contributes to the alleviation of poverty. In other words, the process of environmental policy-making in Zimbabwe has to recognize that human prosperity and environmental sustainability need to be complementary. The common cause of environmental degradation in Zimbabwe today is poverty. It is imperative that the Zimbabwe government ensures sustainable development through diversifying the economic base, promoting growth with equity and through land redistribution.

Poverty must not be taken as a reason for unsustainable utilization of natural resources. While steps must be taken to alleviate poverty, methods used to implement environmental legislation must be effective and efficient. Local authorities, like Mutasa rural district council, must be empowered with the necessary legislation and they must ensure that the legislation is implemented. Environmental laws

may be determined at national level but must be disseminated to the local authorities. This is important because communities who are likely to cause environmental damage are found within the jurisdiction of local authorities. In Mutasa district, for example, gold panners and resettled farmers are found there. Most of the poor people in Zimbabwe are found in the rural areas and since Mutasa district is a rural district it has poor people who are likely to cause environmental degradation.

In this chapter a historical background of environmental policy in Zimbabwe will be provided (*infra*: section 3.2). Problems and challenges associated with the historical policy will be highlighted. Methods used to disseminate environmental laws to local communities like the Mutasa district in Zimbabwe will be described (*infra*: section 3.3). How environmental policies manifest themselves (*infra*: section 3.4) and how they are implemented (*infra*: section 3.5) in the Mutasa district of Zimbabwe will also be described. Institutions involved in the implementation of environmental legislation in the Mutasa district of Zimbabwe will be highlighted as well as methods used to implement environmental legislation.

### **3.2 HISTORICAL BACKGROUND OF ENVIRONMENTAL POLICY IN ZIMBABWE**

A brief review of the history of environmental policy in Zimbabwe was provided in chapter one (*supra*: section 1.1) in this dissertation. A more detailed analysis of the historical background of environmental policy in Zimbabwe will be provided in this section. Problems and challenges associated with the history of environmental policy in Zimbabwe will be highlighted.



According to Mlahleki (1995:1) the present African state is a European creation. It was at the Berlin conference which was held between 1884 and 1885 that the fate of present day Africa was decided by delegates from fourteen states in Europe and two states from the United States of America. The Berlin Conference resulted in the scramble and colonization of Africa including Zimbabwe. During the scramble and colonization of Africa policies which suited the colonizers were developed. Some of the policies which were developed included environmental policies. Environmental policies, like any other policies, are determined by the politics of the day. Before the colonial period (1890) natural resources were preserved through traditional customs, beliefs and taboos. There were no written policies. Some *fauna* and *flora* were preserved because they constituted totems for some people, others were preserved for their medicinal values. Destroying such preserves was tantamount to destroying the people's identity, culture and livelihood. Other *fauna* and *flora* were preserved for parks, for example "Rambakutemwa" was a Shona custom which designated some areas as parks. Natural resources in these areas were not supposed to be destroyed. In fact the term "rambakutemwa" literary means not supposed to be cut down. Trees like 'muhacha" and 'mukarati" were also not supposed to be cut down for spiritual reasons. According to The Standard Shona Dictionary (1984:377 & 380) respectively "muhacha" is known as *parinari curatellifolia* and "mukarati" is known as *burkea africana*. It was believed that ancestral spirits would provide nutritious fruits through them during droughts (Nziramasa 1999:279). The "muhacha" tree had the highest spiritual value in some parts of Zimbabwe as it was believed to provide food, apart from its fruits, when traditional prayers were conducted under it. The practice has since disappeared due to colonialism and modernization.

Destroying such trees attracted a fine of a goat, herd of cattle or both from the traditional leaders. Similarly, rivers and mountains had strong significance and had to be cared for. Polluting them or using them indiscriminately would result in curses like famine or drought (Mbiti 1991:149). Traditional beliefs in nature conservation were so inherent in most Shona and Ndebele communities in Zimbabwe because they constituted their spiritual life. Natural resources were protected through spiritual beliefs. Some mountains like the Nyanga mountain in the Nyanga district of Zimbabwe were so sacred that by merely uttering inflammatory statements whilst in them would make someone disappear for life.

Traditional methods of nature conservation were not free from challenges. Since there were no written policies they could be interpreted differently by different communities within the same country. Dissemination of traditional values, beliefs and taboos orally lost the taste of originality along the way. Cultural dynamics and diversity as a result of intermarriages and search for wealth and employment opportunities among different communities also contributed to loss of originality on the methods of nature conservation. These challenges were compounded by the coming of the settlers in 1890.

As said in the foregoing paragraphs, the present African state is a colonial state. The coming of the white settlers in Zimbabwe in 1890 marked the genesis of a new political dispensation, they became the new law makers. Their environmental policies were designed to serve and promote their own interests (Chiwaro & Manzini 1995:3). The traditional methods of environmental management were replaced by the settlers' new environmental policies which manifested in the form of acts. However, the settlers were more concerned with the land issue. The land policy of the settlers resulted in the enactment of the

*Land Appointment Act, 6 of 1930, the Native Land Husbandry Act, 9 of 1951 and the Land Tenure Act, 15 of 1969* (Tindall 1968:215). The *Land Appointment Act, 6 of 1930* was meant to divide the land between the white settlers and the black indigenous people. The result was that the blacks were forced to squeeze in the unproductive dry and sandy areas of the country which the settlers called 'reserves' or tribal trust lands (TTL). The *Land Husbandry Act, 9 of 1951* was meant to divide the 'reserves' or TTL into individual holdings and this conflicted with traditional beliefs that land could only be allocated by chiefs. The *Land Tenure Act, 15 of 1969* was a consolidation of the *Land Apportionment Act, 6 of 1930*. It created a serious land shortage among Africans because most of the prime land was given to the white settlers for farming and parks. Environmental degradation was rife within African settlements because they were overcrowded. In 1941 the white settlers set up the Natural Resources Board (NRB) which was meant to conserve soil. The NRB encouraged the digging of contour ridges especially among African settlements (Tindall 1968:216 & Artkinson 1972:106). Officials from the NRB, the land development officers (LDO), ensured that the Africans complied with the requirements of the NRB. They moved in the TTLs to ensure that no tillage was done without contour ridges. Sometimes the LDOs demonstrated and showed where and how the contour ridges were to be dug. Even though digging of the contour ridges was meant to preserve the soil, the Africans did not like it because they had been removed from their fertile flat lands to the unproductive sloppy and mountainous areas where they were overcrowded.

The white settlers faced many challenges on environmental issues. They had to address the land issue in their favour and at the same time they had to control the natural resources especially among the overcrowded Africans. Most of the Africans in the TTLs were illiterate and for this reason they did not have access to the various

environmental acts. They did not know or understand the contents of the acts and even if they knew, they were reluctant to implement them because they disliked the politics of the day. During the post-colonial phase from 1980 to date environmental issues were integrated with the country's national development policy. The new African government was faced with a horde of challenges. It had to address economic, social and political imbalances left behind by years of colonialism. The most critical issue to be addressed by the new African government was the land issue which resulted in poverty among the black population. The marginalized black indigenous people wanted their prime land back from the white settlers so that they could till it and reduce poverty among themselves. Faced with the challenges of the land issue the new African government took a low profile on environmental issues and concentrated on the land issue. More so environmental policies were still based on the policies of the former colonial masters. The new African government had to take more time to develop, repeal and amend various environmental policies as highlighted in chapter one (*supra*: section 1.1) of this dissertation.

According to Nziramasanga (1999:376-381) various problems and challenges on environmental policies had to be addressed. Environmental policies were ineffective in addressing contemporary environmental challenges. This was because the main problem faced by Zimbabweans was poverty. Any environmental policy development in the country had to address the problem of poverty and sustainable development simultaneously. Such a policy only came into effect in 2002 when the consolidated environmental policy, the EMA, came into force (Environmental Justice in Zimbabwe, Volume 1 of May 2004:1). The EMA came into effect only in 2002 some twenty-two years after independence because environmental issues were not the new African government's top priority. The new African government's

top priority was the land issue and black empowerment. The land issue took long to address because it required some constitutional amendments. Before 2002 environmental laws were not effectively enforced. The majority of the people in Zimbabwe did not have access to environmental laws because more than 70% of the Zimbabwean population still live in the rural areas and is not literate enough to understand the laws which are written in English (Nziramasa 1999:377).

Furthermore, environmental policies were not effective because some politicians encouraged communal people to invade the white settlers' farms without careful planning. To date most of the former white settlers' farms have been taken by the government to resettle the formerly marginalized indigenous black people. Some of the farms have been taken by top government officials. Trees were indiscriminately cut down for sale as firewood, haphazard resettlement practices, stream bank cultivation and poaching of animals became the order of the day. Institutions involved in environmental education were left powerless to enforce the law. Lack of political will to enforce any legislation militates negatively on any efforts to implement the legislation. Limited participation by the majority of the people in environmental programmes such as afforestation, pollution control, waste management and gully reclamation has been a result of lack of environmental education (Nziramasa 1999:379).

Economic challenges have also resulted in more unfriendly environmental activities such as wood and stone carvings, granite extraction in Mutoko district, diamond rush in Mutare and Marange districts, gold panning in most parts of the country and baobab tree destruction in order to get the bark for making mats in Chimanimani district. These activities continue to increase because environmental

laws are not enforced, politicians are condoning the unfriendly environmental activities and communities are not well informed about the new environmental policies.

After having analysed the historical background of environmental policy in Zimbabwe and highlighted the problems and challenges associated with it the next section focuses on the dissemination of environmental laws to local communities of Zimbabwe.

### **3.3 DISSEMINATION OF ENVIRONMENTAL LAWS TO LOCAL COMMUNITIES IN ZIMBABWE**

When laws have been published in the government gazette they are to be followed and enforced. The public must be made aware of them. Most of the rural people are poor and communication systems are inefficient (Nhapi 2000:169). Environmental laws must be disseminated to all local communities in all parts of the country if sustainable utilization of natural resources is to be hoped for. The ministry of Environment and Tourism in Zimbabwe has the mandate to ensure that environmental laws are disseminated to all local communities in the country (see chapter 20:27 of the EMA).

Various methods of disseminating environmental laws to local communities in Zimbabwe must be used. As stated earlier the Ministry of Environment and Tourism helps local authorities to make by-laws in line with national environmental policies. In turn local authorities like Mutasa rural district council must educate communities, under their jurisdiction, on the by-laws and carry out awareness campaigns especially within their strategic areas like townships, growth points and rural service centers. They can also educate and campaign through institutions like schools and health centers. The Ministry of Environment and Tourism has established

provincial and district offices through which they can disseminate information pertaining to the natural environment. The Ministry of Environment and Tourism's officials at both provincial and district levels must work together with local authorities like Mutasa rural district council. The officials from the Ministry of Environment and Tourism can help district authorities to carry out environmental impact assessments, ensure that environmental laws are being complied with, examine activities which might be detrimental to the environment or natural resources, ensure that operators of possible environmental damaging activities like mining have licenses as enshrined in section 37 of the EMA (*Summary of the Environmental Management Act, 13 of 2002:17*).

While local authorities and the Ministry of Environment and Tourism help to educate local communities on environmental laws and the need for sustainable utilization of natural resources, parastatals, sister government ministries and interested non-governmental institutions, which will be described in the next sections (*infra*: section 3.5.1) are supposed to follow suit. In Mutasa district the Forest Commission, Zimbabwe National Water Authority (ZINWA) and the Parks and Wildlife Authority are the parastatals which are helping local authorities to educate their communities on sound environmental management systems. The three parastatals respectively help to educate Mutasa communities on the need to minimize veld fires, ensure sustainable utilization of both underground and surface water and ensure that both *fauna* and *flora* are not unnecessarily destroyed.

Sister government ministries like the Ministry of Health and Child Welfare and the Ministry of Education, Sport and Culture can also help to educate local communities through their respective institutions. Other interested non-governmental institutions which

can be mandated by government to disseminate information and educate communities on environmental matters include Environment Africa and Zimbabwe Environmental Law Association (ZELA). Environment Africa was established in 1990 and it works in Southern Africa. Its aim is to protect the environment and promote sustainable development (Tapfumaneyi 2006:10-11). Zimbabwe Environmental Law Association (ZELA) seeks to provide strategic environmental law advise, training, research services and public interest litigation to disadvantaged communities. ZELA strives for equity in environmental management, environmental justice and the attainment of a society where people are able to access and use natural resources in an equitable and sustainable manner (Mtisi 2004:1). In the Mutasa district ZELA has initiated the establishment of the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). The basic aim of the CAMPFIRE concept is to ensure sustainable management and utilization of natural resources for the benefit of local communities. Under the CAMPFIRE concept management of the natural resources is placed in the custodianship and responsibility of the resident communities. The resident communities are allowed to benefit directly from sustainable exploitation of their natural resources (United Nations Development Programme 2000:111-112). CAMPFIRE groups can be established in schools and among communities within Mutasa district. Environmental laws can also be disseminated through these groups. The CAMPFIRE concept has not been effectively implemented in the Mutasa district due to lack of coordination and proper administrative structures.



### **3.4 MANIFESTATION OF ENVIRONMENTAL POLICY IN THE MUTASA DISTRICT OF ZIMBABWE**

Chapter two (*supra*: section 2.2) of this dissertation indicated that environmental policy manifests itself in the form of laws, white papers and even the national budget. Legally sanctioned public institutions make the laws, white papers and the national budget. Acts of parliament, ordinances and by-laws are a result of public policy. In this section environmental policy will be described in terms of how it manifests itself in the Mutasa district of Zimbabwe.

The Mutasa rural district council is the legally sanctioned public institution responsible for running the affairs of the district. The council has a chief executive officer as its head and twenty-seven councilors each representing a ward. The council has the responsibility of formulating policy which manifest in the form of by-laws as enshrined in the *Rural District Councils Act, 29 of 1986*. The Ministry of Environment and Tourism works with the district councils in matters of policy formulation. The process of policy-making starts with the identification of a problem and deciding on the agenda status of the problem (Hogwood and Gunn 1991:24). Each councilor of the twenty-seven wards in the district identifies problems affecting their wards and brings them to the council for assessment and consideration. Since the council is unable to address all the problems raised simultaneously, the problems are ranked in order of priority and availability of resources. Problems which have attained agenda status are tabled for discussion by all councilors. This is the policy formulation stage where clear policy objectives and acceptable methods are suggested. The result of policy formulation is the making of by-laws. During this stage chiefs, the business community, church organizations, non-governmental organizations and influential members of the Mutasa community are consulted

(Environmental Justice in Zimbabwe Volume 1 May 2004:11). When the by-laws are made, they are sent to the government at provincial and national levels where they are gazetted and published so that the public is aware of them. Thus, in Mutasa district environmental policy manifests itself in the form of by-laws. Some of the by-laws in Mutasa district govern the use of the land, trees and plants, mining and quarrying, settlements, keeping of animals and poaching.

When environmental laws are formulated and disseminated to local communities, they need to be implemented using effective methods. The focus of the following section is to assess how environmental legislation is implemented in the Mutasa district of Zimbabwe.

### **3.5 IMPLEMENTATION OF ENVIRONMENTAL LEGISLATION IN THE MUTASA DISTRICT OF ZIMBABWE**

Implementation of environmental legislation must be done by every Zimbabwean citizen. The law must be known by the public and be implemented. Individuals and various institutions can be involved in the implementation process. In order to enhance effectiveness the implementation process must be well organized, coordinated and managed by the Ministry of Environment and Tourism through its provincial and local offices. Local authorities like the Mutasa rural district council also works with the Ministry of Environment and Tourism and the Zimbabwe Republic Police to ensure that the implementation of environmental legislation is effective. Those involved in the implementation process must first understand the content and purpose of the legislation. It is not feasible to effectively implement what has not been understood. The various organizations and institutions responsible for disseminating environmental legislation (*supra*: section 3.3) must ensure that the content of the environmental legislation is known by those who would implement it

(United Nations Development Programme 2000:1-2). In the Mutasa district some institutions and individuals must be involved in the implementation of environmental legislation, the next section focuses on institutions involved in the implementation of environmental legislation in the Mutasa district of Zimbabwe.

### **3.5.1 Institutions involved in the implementation of environmental legislation in the Mutasa district of Zimbabwe**

There is not much difference between institutions involved in disseminating environmental legislation in the Mutasa district and those involved in the implementation of the same legislation. The Chief Executive Officer of the Mutasa rural district council in conjunction with the Ministry of Environment and Tourism have the duty to ensure effective implementation of environmental legislation within Mutasa district. This can be done through educating people on the content and purpose of legislation in the district and can also be done through involving communities in decision-making on environmental issues (State of the Environmental Policy Brief 1999:3). Implementation of environmental legislation in the Mutasa district can also be done through other government ministries like the Ministry of Mines, Ministry of Roads and the Ministry of Agriculture. When these government ministries carry out their development activities like opening up new mining areas, constructing roads and bridges and building dams they are required by legislation to assess the impact of their activities on the environment. Environmental impact assessment is a management tool used to identify and predict the likely environmental

consequences, negative or positive, of a proposed project (Chiwandamira & Mbengo 1999:122).

Individuals respond to environmental legislation by refraining from activities which degrade the environment (see section 3.2 above). Effective implementation of environmental legislation by individuals is only possible if the contents and purpose of the legislation is understood and accepted by the public (Environmental Justice in Zimbabwe 2004:1-2).

After having highlighted institutions and individuals involved in the implementation of environmental legislation in the Mutasa district of Zimbabwe the following section focuses on methods used to implement environmental legislation in the Mutasa district of Zimbabwe.

### **3.5.2 Methods used to implement environmental legislation in the Mutasa district of Zimbabwe**

Methods used to implement environmental legislation in the Mutasa district of Zimbabwe can be varied. Some of the methods which can be used to ensure that communities comply with environmental legislation in the Mutasa district of Zimbabwe will be analysed in this section.

The Mutasa rural district council as a responsible authority has to educate communities on the contents and purpose of environmental legislation. It is when communities understand the contents and purpose of the given legislation that they are able to accept it. Methods of disseminating environmental legislation and educating communities must be consistent and accurate. Carrying out awareness campaigns, giving demonstrations like clean up

operations, dramatizing activities which degrade the environment and highlighting the negative effects of a degraded environment like illnesses, drought and hunger are some of the methods the Mutasa rural district council can employ to ensure sustainable utilization of the natural resources. Communities and traditional leaders can be empowered when rural district councils devolve some of their powers to them (Environmental Justice in Zimbabwe 2004:7). It is when traditional leaders and communities become interested custodians of natural resources within their areas and are aware of the contents and purposes of environmental legislation that environmental degradation is reduced. The traditional leaders and communities need to be involved in the decision-making processes like making decisions about the utilization, care and future of their natural resources.

Carrying out workshops with stakeholders like traditional leaders, communities, gold panners and resettled farmers on the importance of sustainable utilization of natural resources and helping them to understand the contents and purpose of environmental legislation would help to reduce environmental degradation (Environmental Justice in Zimbabwe 2004:12). Another method which can be used to ensure effective implementation of environmental legislation would be to give some rewards to communities which comply with the provision of environmental legislation. Rewards can be given to communities which maintain the natural forests, refrain from ploughing down slopes and refrain from ploughing along river banks. On the same note benefits from natural resources within a given area can be ploughed back to benefit the same communities, for example profits gained from gold mined in the Mutasa district or profits gained from granite rock extracted from Mashonaland central province can be used to maintain roads or build schools within the same districts.

This would help to ensure sustainable utilization of the natural resources (Chiwandamira & Mbengo 1999:132).

Some methods to ensure effective implementation of environmental legislation may be negative. Negative methods include fining those who do not comply with the provisions of the environmental legislation and withdrawing operating licenses from those whose operations impact negatively on the future of existing natural resources. Some positive methods to ensure effective implementation of environmental legislation would be to reward those who comply with the legislation as described in the foregoing paragraphs.

In Zimbabwe some of the fines are far too small to deter those who perpetuate the illegal activities. Those who perpetuate the illegal activities benefit far more from the illegal activities than the fines they pay and so environmental degradation continues as they also continue with their illegal activities.

As indicated in this chapter environmental legislation exist in Zimbabwe. The necessary structures to disseminate the legislation to local authorities like the Mutasa rural district council are in place. Methods to effectively implement the legislation have been laid down but one still wonders about their effectiveness given the rate at which the environment is being degraded as a result of illegal activities and unsustainable utilization of natural resources.

### **3.6 CONCLUSION**

In this chapter the historical background of environmental policy in Zimbabwe was analysed. How environmental laws are disseminated to local communities and how environmental policy manifest themselves in Zimbabwe have also been analysed. Implementation of environmental legislation in the Mutasa district has been analysed,

institutions involved in the implementation process were highlighted and methods used to implement environmental legislation were also highlighted.

Key environmental policy issues to be addressed by the policy makers in Zimbabwe as highlighted in this chapter are hereby summarized. Any environmental policy development in Zimbabwe has to simultaneously address the relationship between people, environment and prosperity. Poverty is the common cause of environmental degradation in Zimbabwe today. Poverty has been a result of the legacy left behind by years of colonialism, the legacy of social, political and economic imbalances and inequalities. In pre-colonial Zimbabwe (the period before 1890), natural resources were preserved through traditional customs, beliefs and taboos. The arrival of the colonialists disrupted the traditional view of nature conservation. The colonialists enacted environmental laws which favoured their political ambitions thereby creating the unfavourable imbalances and inequalities which left the indigenous black Zimbabweans poor.

In the post-colonial phase (the period after 1980) Zimbabwe has been trying to develop environmental legislation which will address the problem of poverty and at the same time ensure sustainable development. The EMA is one of the national environmental legislation enacted in 2002 to ensure sustainable development. It is disseminated to local communities by the Ministry of Environmental and Tourism. Local authorities like Mutasa rural district council and other non-governmental organizations help to ensure that environmental legislation reaches out to various communities. Manifestation of environmental policy in the Mutasa district of Zimbabwe is evident when the Chief Executive Officer and the

councilors meet to discuss problems and other developmental issues within their district. Council meetings result in the formulation of by-laws which are gazetted before they are implemented. In this chapter it has been highlighted that environmental policy implementation is done with the help of other government ministries like the Ministry of Education, Sport and Culture, Ministry of Health and Child Welfare and the Ministry of Mines. Other methods which are used to ensure the implementation of environmental legislation include awareness campaigns, educating communities, giving incentives to communities which comply with the legislation and involving communities in decision making about sustainable use of their environment.

In the next chapter the methodology and the research design will be described. Methods of investigation such as the questionnaire and interview will be explained and their advantages and disadvantages highlighted. Other aspects such as the population sample, the research instruments, data collection procedures and the data analysis plan will also be considered.



## **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.1 INTRODUCTION**

In this chapter the research methodology shall be explained. The research design shall be described and some reasons for the selected research design shall be highlighted. The population sample for this research project shall be highlighted and reasons for the preferred population sample shall also be provided. The preferred research instruments shall be explained and their advantages and disadvantages will be highlighted. Finally an analysis of the data collection procedure and an explanation of the data analysis plan will be given before the conclusion.

#### **4.2 RESEARCH DESIGN**

The purpose of this research is to assess the effectiveness of the methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. The researcher used the qualitative approach as opposed to the quantitative approach. The goal of qualitative research is to produce intensive, authentic and descriptive accounts of experience and action (McLeod 1993:32). Qualitative research is able to bring out data on people's experiences, feelings and emotions using flexible language. Events and activities which are leading to unsustainable utilization of natural resources in the Mutasa district of Zimbabwe are observed and experienced. The qualitative research method seeks to observe patterns of behaviour (Vierra & Pullock 1988:50-51). The behaviour of people in the Mutasa

district of Zimbabwe can be observed using the qualitative research method.

Barker, Pistrong and Elliot (1995:72) identified some advantages of the qualitative method as follows:

- It enables researchers to do studies in depth and in detail.
- The researcher can ask questions about all three domains namely the affective, cognitive and psychomotor.
- The researcher can probe and dig deep into the mind of the respondent in order to clearly understand a given phenomena.
- The researcher is able to study the more complex aspects of people's experiences for example the experience of people in the Mutasa district of Zimbabwe.
- There are fewer restrictions on the data underlying theoretical models.
- Issues which cannot be qualified can still be explored, for example, empathy; and
- it is easy to understand because it does not necessarily need statistical analysis.

The above highlighted advantages were applied in this research. The researcher was able to carry out an indepth study in his assessment of the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. Environmental degradation can be seen in the Mutasa district, relevant legislation in the form of by-laws do exist and institutions to implement the legislation are in place. What the researcher observed is a deteriorating state of the environment within the Mutasa district. From observations made the researcher was able to probe and dig deep into the minds of the respondents using the interview as a research instrument.

Barker *et al.* (1995:72) also highlighted some disadvantages of the qualitative research design as follows:

- It is time consuming and expensive especially when conducting interviews.
- Data analysis process is time consuming when open-ended questions are used.
- Data analysis is not as explicit as in quantitative research because it does not necessarily deal with quantities.
- Analysis of qualitative data is through conceptualization.
- Conceptualization assumes subjectivity and can be tricky to the inexperienced researcher.

The qualitative research design, as described above, was more appropriate to this research and hence it was preferred. The research does not involve quantifiable phenomena. The effectiveness of the methods used to implement environmental legislation can be felt or observed and not necessarily quantified.

### **4.3 POPULATION SAMPLE**

The purpose of sampling is to obtain a group of participants who will be representative of the larger population. A sample is a selection from, or any part of, a defined population. It is a portion of the population that has been selected and from whom data is collected for statistical purposes (McMillan & Schumacker 1997:68-70). In this research the population is the target group from which the researcher obtained information pertaining to the various aspects of the research. The population sample consisted of one hundred people who were stratified as follows: twenty gold panners, twenty housewives, twenty resettled farmers, twenty ordinary citizens, ten

police officers, five officials from Mutasa rural district council and five officials from the Ministry of Environment and Tourism. Sampling in survey research helps to ensure that the people from whom data is collected are representative of the larger universe of people about whom the research seeks to generalize (Williamson, Karp & Dalphin 1977:222).

The population sample in this research represents key existing population groups in the Mutasa district of Zimbabwe. The population sample has been divided into a number of strata which are mutually exclusive and the members of which are homogeneous. This purposive random sampling was done to ensure that all subgroups from the heterogeneous population in the Mutasa district are considered in the research. Stratification was done according to preferred characteristics which were purposeful and relevant to the research. Basically two categories of respondents were considered. One category consisted of respondents who are supposed to ensure that communities comply with environmental policies. The respondents in this category included police officers, officials from Mutasa rural district council and officials from the Ministry of Environmental and Tourism. The other category consisted of those whose activities are likely to cause environmental degradation such as housewives, gold panners, resettled farmers and ordinary citizens. Within each strata of respondents a selection of samples was done randomly through picking cards which were inscribed either a 'YES' or a 'NO'. All those who picked a 'YES' card were selected to represent the strata and those who picked a 'NO' card were left out. The researcher visited the various places where the possible respondents could be found in order to administer the selection. Gold panners were selected from their bases in Honde valley, Watsomba and Penhalonga whilst housewives and ordinary citizens were selected

from the same areas as gold panners, but they were met at church services and as they gathered for food handouts. Zimbabwe Republic Police officers picked their selection cards from Penhalonga police camp and Ruda police camp. Officials from Mutasa rural district council were selected from their district offices at Watsomba and at their sub-offices in Honde valley and Penhalonga. Officials from the Ministry of Environment and Tourism were selected from their provincial offices in Mutare and their sub-office at Watsomba.

It has not been possible to include all the elements of each strata for this research such as all gold panners or all house wives in the Mutasa district of Zimbabwe because it was not going to produce realistic results. A careful, purposeful and relevant random selection of respondents is likely to produce better results than when the whole population is included (McMillan & Schumacker 1997:71). Stratified random selection was preferred for this research because of the following advantages:

- It is quicker to collect the required data from a sample than from the total population.
- Sampling is most likely to be more accurate than when the whole population is involved; and
- it is cost effective in terms of time and resources (Williamson *et al.* 1977:222).

In this section the population sample was explained and some reasons for the sample choices were highlighted. In the next section an analysis of preferred research instruments will be carried out.

#### **4.4 RESEARCH INSTRUMENTS**

The questionnaire and the interview are the preferred instruments for eliciting data for this research. The two instruments were preferred because of their advantages and convenience over their disadvantages and inconveniences. Borg and Gall (1983:81-82) analysed various advantages of the questionnaire. It is cost effective in that it can be posted to respondents thereby reducing travelling costs. It is also cost effective in terms of time because the researcher does not need to spend time with the respondents. The questionnaire reduces the bias of personal interaction which may be brought about by facial expressions as may be the case during an interview. Another advantage of the questionnaire is that it gives room for anonymity. Respondents may choose to remain anonymous and this helps to build confidence in them. When anonymous, the respondent is more likely to be honest, truthful and realistic when responding to the questionnaire. The other advantage of the questionnaire is that the researcher can cover a wider geographical area like the Mutasa district. When respondents are selected from a wider geographical area for a particular study a true reflection of the larger population of the area is likely to be realistic. The questionnaire as a research instrument can accommodate more participants because the researcher does not necessarily need to meet the respondents. The other advantage is that it has the same questions for all the respondents. This makes the analysis easier for the researcher. Questions on the questionnaire are specifically written for specific purposes and are purposefully addressing issues for which the research is being carried out. When responses are given they are relevant to the research problem (Nachmias & Nachmias 1989:86-87). In this research the questionnaire contained questions relevant to the research problem. The researcher divided the

questionnaire into five sections, A, B, C, D, and E. Each section had a heading and a number of carefully and purposefully selected questions. In section A, the respondents were asked to provide personal background information relating to age, sex, academic qualification and economic status. Section B required the respondents to provide information relating to their awareness of environmental legislation and section C required some information about activities which degrade the environment. Section D was most central and directed to the research topic and it required information about methods being used to implement environmental legislation in the Mutasa district of Zimbabwe and Section E required the respondents to express their personal opinion about environmental issues in Mutasa district of Zimbabwe. The responses provided were relevant to the research problem and the researcher was able to assess the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district.

Whilst the questionnaire is the mostly used instrument for eliciting data from respondents and whilst it has the various advantages cited above, it is not free from disadvantages. Babbie (1983:223) and Nachmias & Nachmias (1989:87-87) concurred in highlighting some disadvantages of the questionnaire as a research instrument. The questionnaire does not provide the opportunity of a meeting between the researcher and the respondent. This means the researcher is denied the opportunity to probe for any further clarification or justification. Furthermore, the researcher has no control over who fills in the questionnaire. The selected respondent may get help when filling in the questionnaire thereby spoiling the original possible response from the intended respondent. Another disadvantage of the questionnaire is that of a possible low response rate (Babbie 1983:24). Not all the questionnaires are likely to be returned. In

Mutasa district postal delays, illiteracy, socio-economic hardships and a general dislike of responding to issues which do not have an immediate and direct benefit to the respondent are some of the reasons for a low response rate. For the above reasons the researcher had to make follow up visits and call backs. This exercise proved costly in terms of time and resources.

For this research the questionnaire had two sets of questions, the fixed alternative type or closed-type where respondents had to make their choices from sets of alternatives and the open-ended type where respondents were allowed to express their feelings. Sections A, B, C, and D contained the closed-type questions and section E had one open-ended question.

Closed-type questions provide standardized answers and can be compared from one respondent to another (Babbie 1983:224). Responses are easier to code and analyse. It is easier for the respondent to answer because alternatives are given. The respondent only chooses from the given alternatives. Chances of irrelevant answers are limited because appropriate alternatives are provided.

The closed-type questions also have some disadvantages. Respondents who feel bothered by the questionnaire may just provide random answers without special consideration. If a respondent's desired alternative is not provided for in the answer category he/she may feel frustrated and may even fail to respond to the questionnaire or the question. Furthermore chances of clerical error where respondents circle or tick a wrong response instead of the preferred one are likely to occur (Babbie 1983:228).



The open-ended questions gave respondents the opportunity to express their personal opinion in detail and to clarify their feelings. However, the open-ended questions also have some disadvantages. Worthless and irrelevant data may be collected as respondents try to give detail and clarify their opinions. Data collected from one respondent to another is not standardized thereby making it difficult to compare and analyse. Respondents need more time and resources as they try to express and clarify their opinions. Some respondents are unable to express their feelings well on paper.

The interview was used as a research instrument for the illiterate respondents from such categories as gold panners, housewives, resettled farmers and some of the ordinary citizens. Half of the number of respondents from each of the illiterate categories was interviewed. The interview questions were the same as those for the questionnaire in order to obtain standardized responses. Interviews are not just a chart but are directed so that the most useful, relevant and purposeful information is provided in the shortest possible time (Babbie 1983:26).

Advantages of interviews are that questions can be checked for consistency, they provide access to what is inside a person's head and they make it possible to measure what a respondent knows, likes or dislikes or what a respondent thinks or feels in a short space of time. The interviewer has the opportunity to probe further or repeat questions in order to gain clarity about any question. One of the best advantages for using the interview in this research was that it allowed even the illiterate people to respond to the questions. The interviewer had the opportunity of controlling the environment in which the interview was taking place for example, by conducting the interview in privacy. The interviewer was also able to control the

order and direction of the questions. The interview provides an opportunity for spontaneous and informative answers. Only the sampled respondents can give answers and the interviewer can ensure that all questions are responded to (Charles 1988:85).

Like any other research instrument, the interview has its own disadvantages. It is costly and time consuming because the interviewer has to travel and meet each and every respondent. The freedom given to respondents for self-expression is time consuming. Some respondents may be discouraged from responding to the instrument because they may not have enough time to do so. The interviewer may also be biased by some possible clerical errors when responses are incorrectly recorded or when responses are misunderstood. The most common disadvantage of the interview is its lack of anonymity. Respondents may not feel comfortable to provide honest and truthful responses if they know that their responses are not protected by privacy (Charles 1988:85).

Having explained the preferred research instruments for this study, the data collection procedure will be analysed in the next section.

#### **4.5 DATA COLLECTION PROCEDURE**

The research was carried out in the Mutasa district of Zimbabwe and it concerned an assessment of the effectiveness of methods used in the implementation of environmental legislation in the district. Before carrying out the research permission was sought from Mutasa rural district council which constitute the responsible authority for the district. The researcher also sought permission from the Ministry of Environment and Tourism at their provincial offices in Mutare because they are the responsible Ministry under whom the research

was carried out. The Ministry's provincial offices in Mutare monitor environmental activities in all districts in Manicaland province and this includes Mutasa district. Permission was also sought from the Zimbabwe Republic Police within the Mutasa district. There are two main police camps in Mutasa district, Penhalonga police camp in Penhalonga and Ruda police camp in Honde Valley.

When permission was granted from all the stakeholders the researcher had to identify relevant and purposeful groups for the research (*supra*: section 4.3). The distribution of the respondents selected and provided under the population sample was as follows: five Zimbabwe Republic Police officers were randomly selected from Penhalonga police camp and the other five from Ruda police camp. Of the five officials selected from Mutasa Rural district council one was from a sub-office in Honde valley, one from a sub-office in Penhalonga and the other three were from the main council offices at Watsomba. Officials selected from the Ministry of Environment and Tourism were three from the provincial offices in Mutare and two from the Ministry's sub-office at Watsomba in Mutasa district. Of the twenty gold panners, twenty resettled farmers, twenty housewives and twenty ordinary citizens, five respondents from each category were randomly selected from Penhalonga area which lies to the south of the district, ten respondents from each category were randomly selected from Watsomba area which is the central part of the district. The last five respondents from each category were randomly selected from Honde valley which lies to the north of the district. This spatial distribution of the respondents within the whole district was preferred as it helped to ensure assessment of the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe has had a fair share of responses from all the main areas of the district.

Most of the questionnaires had to be delivered in person because selected respondents could easily be seen concentrated in definite areas where they carried out their activities or where they worked (*supra*: section 4.3). Interviews were also conducted when the researcher visited the respondents.

#### **4.6 DATA ANALYSIS PLAN**

Data analysis in qualitative research is primarily an inductive process of organizing the data into categories and identifying patterns or relationships among the categories (McMillan *et al.* 1997:500-503). It is a systematic process of selecting, categorizing, comparing, synthesizing and interpreting data to provide explanations of the single phenomenon of interest. McMillan and Schumacker (1997:90) identified and summarized five stages of analysis of qualitative data. The first stage is when the researcher intensively reads or studies responses in order to get their meaning. This stage is called immersion. The second stage is categorization. It is systematic working through responses, grouping them according to similar responses and coding the responses accordingly. The third stage is when the researcher questions and interrogates the meanings of responses or the validity of the selected categories against the research problem. This is called phenomenological reduction. The idea is to find out if there are other ways of looking at the data. The fourth stage is triangulation. It is the practice of finding or using different data collecting techniques in the same study to seek agreement in the data given. At this stage the researcher sorts through categories, deciding which categories are recurring and central and which are less significant or are invalid or mistaken. The

fifth stage is interpretation. It involves making sense of the collected data from a wider perspective.

In this research the researcher carefully and intensively studied data collected through the questionnaires and interviews. After studying the data the researcher systematically worked through the responses grouping similar responses in each strata. The totals of similar responses in each strata were expressed as percentages of the total responses per strata and were recorded in tabular form. During the process of categorizing data the researcher analysed and checked the validity of each set of responses against the research problem. After collecting and recording similar responses from each strata the researcher collected all similar responses from all the seven different categories to form one table which summarized the total findings of the entire research. The summary of the research findings were expressed as percentages of the grand total of responses (Best & Kahn 2000:126).

#### **4.7 CONCLUSION**

In this chapter the researcher described the research design and the research methodology. Advantages and disadvantages of both the research design and the research methodology were highlighted. The research instruments, the questionnaire and the interview were described and their advantages and disadvantages were highlighted. Purposive random sampling was preferred for this research because the selected samples represented relevant members of the Mutasa district for the research. The researcher's data collection procedure and data analysis plan were described.

In this chapter the qualitative research design was explained. The qualitative research method is able to bring out data on peoples experiences, feelings and emotions. Environmental degradation in the Mutasa district of Zimbabwe relates to the peoples experiences, feelings and emotions. Some advantages of the qualitative research design discussed in this chapter are that the researcher can probe and dig deep into the mind of the respondent. The researcher is able to study the more complex aspects of people's experiences and the method does not need statistical analysis. The disadvantages of the qualitative research design as highlighted in this chapter are that, it is time consuming and that it is affected by subjectivity.

The population sample was drawn from two main groups, those who are likely to cause environmental degradation like the gold panners and resettled farmers and those who are supposed to ensure that environmental laws are observed like police officers and officials from Mutasa rural district council. Random sampling was used in each category by way of picking cards inscribed 'YES' or 'NO'. Those who picked the card inscribed 'YES' were selected to be part of the population sample. Questionnaires and interviews were used as research instruments. Questions on the questionnaires and questions for the interviews were the same and were more directed to the research question. This made it easier for the researcher to elicit data and to analyse it.

Before carrying out the research, the researcher had to seek permission from the relevant authorities like the Zimbabwe Republic Police, Mutasa rural district council officials and officials from the Ministry of Environment and Tourism. Most of the questionnaires were delivered by hand to the respondents. The data analysis plan was also discussed in this chapter.

In the next chapter the research data gathered will be presented, analysed and interpreted. Tables will be used to present, analyse and interpret the data.

## **CHAPTER 5**

### **DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

#### **5.1 INTRODUCTION**

Data collected through the use of questionnaires and interviews to assess the effectiveness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe is presented, analysed and interpreted in this chapter. Data collected from different categories of respondents is recorded in different tables and is expressed as percentages of total responses per category. The percentage system was preferred in order to provide a standard measure for effective analysis and interpretation. When all the data from all categories of respondents has been presented, analysed and interpreted, a summary of all the responses is provided. The summary also shows average responses for the entire research. It is from the presentation, analysis and interpretation of the responses that conclusions and proposals will be made.

The questions for the entire research were presented in four categories. All the one hundred respondents were asked questions which related to their awareness of environmental legislation, section B, activities leading to environmental degradation, section C, and methods used to implement environmental legislation in the Mutasa district of Zimbabwe, section D. The last section on the questionnaire, section E, required the respondents to provide their personal opinion on what should be done to improve the methods used to implement environmental legislation in the Mutasa district of Zimbabwe.



## 5.2 SUMMARY OF RESPONSES FROM GOLD PANNERS

Of the twenty samples of gold panners two of them did not respond. Those who responded were eighteen. Of the eighteen respondents ten were interviewed and eight responded through questionnaires. The eighteen gold panners responded to the questions which related to their awareness of environmental legislation as shown in Table 5.2.1 below.

**Table 5.2.1: Awareness of environmental legislation by gold panners**

	Yes	%	No	%	Not sure	%
Environmental legislation read	6	33.3	12	66.7	0	0
Environmental legislation explained	9	50	9	50	0	0
Availability of environmental awareness programmes.	2	11.1	15	83.3	1	5.6

The table shows that more than half of the respondents had never read any environmental legislation and those who had read the environmental legislation were less than half. Another half of the total number of respondents had had environmental legislation explained to them and the other half had not. Those who indicated that there were no environmental awareness programmes within the district were more than those who acknowledged that environmental awareness programmes were available in the Mutasa district of Zimbabwe. A small number of the respondents said that they were

not sure of the availability of any environmental awareness programmes in the Mutasa district. The responses by gold panners on their awareness of environmental legislation confirmed Nziramasanga's (1999:377) findings that the majority of people in Zimbabwe do not have access to the environmental laws. The responses from the gold panners indicated that communities in the Mutasa district of Zimbabwe are not well informed of environmental legislation which govern their daily activities. There is lack of environmental education and environmental awareness programmes in the district. The gold panners were also asked to respond to questions relating to their knowledge of activities leading to environmental degradation. Table 5.2.2 below shows their responses.

**Table 5.2.2: Awareness of activities leading to environmental degradation by gold panners**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	2	11.1	11	61.1	5	27.8
Destruction caused by panning activities	Destructive	%	Not destructive	%	Not sure	%
	12	66.7	2	11.1	4	22.2
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	2	11.1	12	66.7	4	22.2
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	11	61.1	4	22.2	3	16.7
Stream bank agriculture	Yes	%	No	%	Not sure	%
	15	83.3	1	5.6	2	11.1

From the table above most of the gold panners acknowledged that panning was illegal in the Mutasa district of Zimbabwe. A smaller number of the respondents were not sure whether panning was

illegal or not. The smallest number of the respondents indicated that panning was legal. When the researcher probed further during interviews to find out why they continued to do what was illegal most of those interviewed said that it was their life line and had to support their families since they were unemployed and had no hope of being employed. They also felt that they got quick and better money through panning activities and therefore they preferred to continue with panning activities. Most of the gold panners, however, acknowledged that gold panning was destructive. Only a small percentage of the respondents indicated that panning was not destructive and a few others were not sure of the destruction caused by panning activities. The small percentage of respondents who were not sure whether panning activities were destructive or not indicated that there was need to increase environmental education and environmental awareness programmes in the Mutasa district of Zimbabwe. Even though most of the gold panners knew that panning activities destroyed the environment, they continued to do it in order to survive. Poverty and a lack of alternative income generating activities forced the gold panners to continue with the destructive panning activities.

From table 5.2.2 above most of the gold panners also indicated that the purpose for cutting down trees was for firewood because the main source of fuel for domestic use in rural Zimbabwe was firewood. A small percentage of the gold panners indicated that trees were cut down for sale and another small percentage of the respondents indicated that trees were cut down for land use. According to the greater number of the respondents the main source of fuel for domestic purposes in the Mutasa district of Zimbabwe is firewood. Small percentages of the respondents also said that electricity and paraffin were used in the Mutasa district. When asked why firewood

was the common source of fuel for domestic purposes gold panners said that firewood was cheaper and easily available. Electricity was scarce and expensive. The current power cuts made electricity supply inconsistent and unreliable. Paraffin was also expensive and scarce. Not many people could afford it.

On stream bank agriculture most of the gold panners indicated that it was being carried out in the Mutasa district. When asked why stream bank agriculture was high in the Mutasa district of Zimbabwe the gold panners cited lack of rainfall especially the 1992 and 2002 drought forced many people to use the wet lands available along river banks. They also cited good fertile soils along river banks which attracted them to do stream bank agriculture. Gold panners also responded to questions relating to methods used to implement environmental legislation in the Mutasa district of Zimbabwe. Table 5.2.3 below shows how they responded.

**Table 5.2.3: Responses by gold panners on methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	No	%	Not sure	%
	2	11.1	5	27.8	11	61.1
Prosecution of offenders	True	%	False	%	Sometimes	%
	6	33.3	0	0	12	66.7
Environmental education programmes offered	True	%	False	%	Rarely	%
	2	11.1	7	38.9	9	50
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	2	11.1	13	72.2	3	16.7

Asked whether environmental awareness programmes were available in the Mutasa district of Zimbabwe most of the respondents indicated that such programmes were not always available, some said that there were no such programmes at all and only a small percentage of the respondents acknowledged that environmental awareness programmes were available in the Mutasa district of Zimbabwe. The above responses revealed that there was a need to improve on environmental awareness programmes by involving all gold panners since they were likely to cause more environmental damage as they carried out their panning activities.

When the gold panners were asked about prosecution of offenders of environmental legislation most of them indicated that offenders were sometimes prosecuted and less than half of the respondents indicated that offenders were prosecuted. During interviews with some of the gold panners, the researcher collected that some gold panners bribed some of the officials who wanted to prosecute them. The research revealed that economic hardships and poverty resulted in some of the officials accepting bribes from offenders.

About half the number of the respondents said that environmental education programmes were rarely carried out. A small percentage of the respondents indicated that environmental programmes were carried out and more than a third of the respondents indicated that there were no environmental education programmes in the Mutasa district of Zimbabwe. The responses suggested that there was a need to increase environmental education and environmental awareness programmes in the Mutasa district. Such programmes must involve most of the people in the district especially those whose activities are likely to cause environmental degradation. The majority of the gold panners indicated that methods used to implement environmental

legislation in the Mutasa district of Zimbabwe were ineffective. Some of the respondents were not sure of the availability of any methods used to implement environmental legislation. The smallest percentage of the respondents indicated that methods used to implement environmental legislation were effective. According to the gold panners methods used to implement environmental legislation in the Mutasa district of Zimbabwe were ineffective because there was a lack of consistency.

The other category of respondents were the resettled farmers. They were also asked to respond to categories of questions relating to their awareness of environmental legislation, awareness of activities leading to environmental degradation and methods used to implement environmental legislation in the Mutasa district of Zimbabwe.

### **5.3 SUMMARY OF RESPONSES FROM RESETTLED FARMERS**

Twenty resettled farmers were sampled for this research. One of the resettled farmers did not return the questionnaire. Of the nineteen resettled farmers who responded, nine of them responded through questionnaires and ten of them responded through interviews.

When asked to respond to questions relating to their awareness of environmental legislation the resettled farmers responded as follows:

**Table 5.3.1: Awareness of environmental legislation by resettled farmers**

Environmental	Yes	%	No	%	Not sure	%
legislation read	5	26.3	14	73.7	0	0
Environmental legislation explained	12	63.2	7	36.8	0	0
Availability of environmental awareness programmes.	4	21.1	13	68.4	2	10.5

The research indicated that most of the respondents had not read any environmental legislation, only a small percentage of the respondents had read some environmental legislation. The results indicated that most of the respondents had not read any environmental legislation because they had either not seen the legislation or they were not literate enough to read the environmental legislation which is written in English. This confirms what Nziramasanga (1999:377) stated that 70% of the Zimbabwean population live in the rural areas and most of them are not literate enough to understand the laws which are written in English.

Asked if any environmental legislation had been explained to them, most of the respondents indicated a positive response. The responses signified that environmental awareness programmes could best be done through environmental education and not by letting the local communities read the environmental legislation on their own. Most of the people in the Mutasa district are not literate enough to read and to understand the jargon of the legislation written by experts. The other option would be to simplify the legislation or to summarize it in local languages: Shona and Ndebele.

When asked about the availability of environmental awareness programmes in the Mutasa district of Zimbabwe most of the resettled farmers indicated a negative response. A small percentage of the respondents indicated a positive response and another small percentage indicated that they were not sure of the availability of any environmental awareness programmes in the Mutasa district of Zimbabwe. The responses by the resettled farmers may indicate that those who were supposed to ensure that environmental awareness programmes were being carried out were not doing their work effectively. Those who indicated a positive response suggested that environmental awareness programmes were not being carried out on a large scale and did not involve all the people concerned. Only a few people were involved in awareness programmes.

The resettled farmers were also asked to respond to questions relating to their awareness of activities leading to environmental degradation in the Mutasa district of Zimbabwe. Table 5.3.2 below highlights how they responded.



**Table 5.3.2: Awareness of activities leading to environmental degradation by resettled farmers**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	1	5.3	15	78.9	3	15.8
Destruction caused by panning activities	Destructive	%	Not destructive	%	Not sure	%
	17	89.5	0	0	2	10.5
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	2	10.5	14	73.7	3	15.8
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	16	84.2	2	10.5	1	5.3
Stream bank agriculture	Yes	%	No	%	Not sure	%
	14	73.7	1	5.3	4	21.0

The majority of the respondents indicated that panning was illegal. A small percentage of the respondents said that panning was legal and another small percentage said that they were not sure of the legality of panning activities. When asked why people continued with the illegal gold panning the resettled farmers concurred with the gold panners who acknowledged that poverty forced people into illegal gold panning. The respondents were asked to respond to questions relating to destruction caused by panning activities. Most of them agreed that panning activities were destructive, a few of them were not sure whether panning activities were destructive or not. Most resettled farmers were quick to notice the destruction caused by panning activities because they said that illegal gold panning also disturbed their farming activities.

Apart from questions on panning activities the resettled farmers were asked to respond to questions relating to purposes of cutting down trees, sources of fuel for domestic use and availability of stream bank

agriculture in the Mutasa district of Zimbabwe. The majority of the respondents indicated that trees were cut down for firewood, a few of the respondents said that trees were cut down to prepare the land for agricultural purposes and a few others said that trees were cut down for sale. The above responses suggested that since Mutasa is a rural district most people use firewood for domestic purposes. The basic source of fuel for domestic use in the Mutasa district was firewood. A small percentage of the respondents indicated that they either used paraffin or electricity as their source of fuel. Those who used electricity signified that there were few families who could afford to install electricity in their homes or they were those who had finally settled in former commercial farm houses which were electrified or those who had benefited from the government's rural electrification programme. Asked about stream bank agriculture most of the respondents acknowledged that stream bank agriculture was practised in the Mutasa district of Zimbabwe, a small percentage of the respondents had negative responses and another small percentage of the respondents were not sure. The high rate of stream bank agriculture confirmed the argument by Mtisi (2004:1) that ineffective implementation of by-laws by local authorities is responsible for increased stream bank agriculture.

The resettled farmers were finally asked to respond to questions relating to their knowledge of methods used to implement environmental legislation in the Mutasa district of Zimbabwe. Table 5.3.3 highlights their responses.

**Table 5.3.3: Responses by resettled farmers on methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	Not available	%	Not always	%
	3	15.8	3	15.8	13	68.4
Prosecution of offenders	True	%	False	%	Sometimes	%
	3	15.8	1	5.3	15	78.9
Environmental education programmes offered	True	%	False	%	Rarely	%
	1	5.3	2	10.5	16	84.2
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	2	10.5	12	63.2	5	26.3

Asked whether there were any environmental awareness programmes in the Mutasa district of Zimbabwe most of the resettled farmers indicated that environmental awareness programmes were not always available. A small percentage of the respondents agreed that such programmes were available and an equally small percentage of the respondents said that such programmes were not available. Constant environmental awareness programmes would help communities to seriously consider environmental conservation strategies thereby saving the environment from consistent and serious degradation. Those who indicated a positive response suggested that environmental awareness programmes were carried out at a very low scale in the Mutasa district of Zimbabwe. Environmental awareness programmes must be more consistent if activities leading to environmental degradation are to be reduced in the Mutasa district of Zimbabwe.

On prosecution of offenders of environmental legislation the majority of the resettled farmers acknowledge that offenders of environmental

legislation were sometimes prosecuted. Inconsistency in the prosecution of offenders of environmental legislation suggested that environmental degradation would not be reduced by this method. Only a small percentage of the respondents indicated that offenders of environmental legislation were prosecuted. When the respondents were asked about the availability of environmental education programmes most of them indicated that such programmes were rarely carried out. Some of them said that such programmes were never carried out and only the smallest percentage of the respondents said that they were carried out. The findings seem to indicate that there were limited environmental education programmes in the Mutasa district of Zimbabwe. The above responses indicated that offenders of environmental legislation were not always prosecuted and environmental education programmes were rarely carried out. Therefore, according to the resettled farmers, methods used to implement environmental legislation in the Mutasa district of Zimbabwe were ineffective. Only a small percentage of the respondents were not sure whether the methods used to implement environmental legislation in the Mutasa district of Zimbabwe were effective or not and only a small percentage of the respondents said that the methods were effective.

The next category of respondents were the housewives. They were also asked similar questions as the gold panners and resettled farmers.

#### **5.4 SUMMARY OF RESPONSES FROM HOUSEWIVES**

All the twenty housewives who were selected as respondents were available. Ten of them responded through interviews and the other ten filled in some questionnaires.

When they were asked to respond to questions relating to their awareness of environmental legislation they responded as recorded in table 5.4.1 below.

**Table 5.4.1: Awareness of environmental legislation by housewives**

Environmental legislation read	Yes	%	No	%	Not sure	%
	2	10	17	85	1	5
Environmental legislation explained	6	30	13	65	1	5
Availability of environmental awareness programmes.	3	15	15	75	2	10

From the table above, most of the respondents indicated that they had never read any environmental legislation. A small percentage of the respondents had read some environmental legislation. Asked if any environmental legislation had been explained to them a small percentage of the respondents registered a positive response. Most of them registered a negative response. Asked whether environmental awareness programmes were available in the Mutasa district of Zimbabwe the majority of the respondents indicated a negative response, a small percentage indicated a positive response and an even smaller percentage of the respondents were not sure.

The responses by housewives confirmed that environmental legislation had not been read by the majority of housewives in the Mutasa district of Zimbabwe and it had not been explained to the majority of them either. The responses showed that the majority of

the housewives in the Mutasa district of Zimbabwe had neither read nor heard much about environmental legislation therefore they were not aware of any environmental legislation.

The housewives were also asked to respond to questions relating to their awareness of activities leading to environmental degradation. Their responses are recorded in Table 5.4.2 below.

**Table 5.4.2: Awareness of activities leading to environmental degradation by housewives**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	0	0	17	85	3	15
Destruction caused by panning activities	Destructive	%	Not destructive	%	Not sure	%
	18	90	0	0	2	10
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	1	5	17	85	2	10
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	18	90	1	5	1	5
Stream Bank agriculture	Yes	%	No	%	Not sure	%
	17	85	1	5	2	10

Asked whether gold panning was legal or illegal most of the respondents agreed that it was illegal and a small percentage of the respondents were not sure. To prove that gold panning was illegal, the majority of the respondents indicated that gold panning was destructive and only a small percentage of the respondents indicated that they were not sure of the destruction caused by panning activities. Apart from panning activities the housewives were also asked about the purpose of cutting down trees, most of them indicated that trees were basically cut down for firewood. This indication was confirmed by the majority of the respondents who indicated that the main source of fuel for domestic purposes in the

Mutasa district was firewood. Electricity and paraffin were not easily available and were therefore not the common sources of fuel for domestic purposes in the Mutasa district of Zimbabwe. The other purpose for which trees were cut down was land use. The majority of those who cut down trees for land use were the resettled farmers. According to the housewives the main purpose of cutting down trees in the Mutasa district of Zimbabwe was for firewood.

On stream bank agriculture most of the respondents acknowledged that there was stream bank agriculture in the Mutasa district of Zimbabwe. Stream bank agriculture caused siltation and soil erosion. In some cases rivers dried up as a result of stream bank agriculture. The water was also contaminated as stream bank farmers applied insecticides and fertilizers (Tapfumaneyi, 2006:11).

The housewives had also to respond to questions relating to methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. Table 5.4.3 below shows how they responded.

**Table 5.4.3: Responses by housewives on methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	No	%	Not sure	%
	2	10	6	30	12	60
Prosecution of offenders	True	%	False	%	Sometimes	%
	4	20	2	10	14	70
Environmental education programmes offered	True	%	False	%	Rarely	%
	4	20	4	20	12	60
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	1	5	16	80	3	15

While a small number of respondents indicated that environmental awareness programmes were available in the Mutasa district of Zimbabwe most of the respondents said that such programmes were not always carried out in the district. The environmental awareness programmes were not effective enough to reach out to most people in the Mutasa district. About a third of the respondents indicated that environmental awareness programmes were not available in the Mutasa district of Zimbabwe.

Table 5.4.3 above also shows that in the same way as environmental awareness programmes were not always carried out, offenders of environmental legislation were not always prosecuted. Most of the respondents said that environmental education programmes were rarely available. A small percentage of the respondents indicated that environmental education programmes were not available and an equally small percentage of the respondents indicated that such programmes were available. According to the above responses it was no surprise that the majority of the housewives indicated that methods used to effect environmental legislation in the Mutasa district of Zimbabwe were ineffective. From the responses above it indicated that there was a need for consistency in carrying out environmental awareness programmes and need to prosecute offenders of environmental legislation and to carry out environmental education programmes in the Mutasa district of Zimbabwe.

Twenty ordinary citizens were also asked to respond to similar questions as the members of the other categories. Section 5.5 below summaries their responses.



## 5.5 SUMMARY OF RESPONSES FROM ORDINARY CITIZENS

Out of the twenty ordinary citizens who were sampled for this research one of them failed to respond because he had gone out of the district on business during the period of the research. Of the remaining nineteen, nine of them were interviewed and ten responded through questionnaires. Table 5.5.1 below shows their responses on their awareness of environmental legislation.

**Table 5.5.1: Awareness of environmental legislation by ordinary citizens**

Environmental legislation read	Yes	%	No	%	Not sure	%
	3	15.8	16	84.2	0	0
Environmental legislation explained	5	26.3	14	73.7	0	0
Availability of environmental awareness programmes.	6	31.5	12	63.2	1	5.3

Most of the respondents indicated that they had they never read any environmental legislation and a few of them read some environmental legislation. Asked whether some environmental legislation had been explained to them, most of the respondents indicated that it had never been explained to them. A small percentage of the respondents indicated that they had had some environmental legislation explained to them. Lack of programmes where environmental legislation is explained to the ordinary people suggested why the majority of the

respondents indicated that environmental awareness programmes were not available in the Mutasa district of Zimbabwe.

The ordinary citizens were also asked to respond to questions relating to their awareness of activities leading to environmental degradation. Their responses are recorded in table 5.5.2 below.

**Table 5.5.2: Awareness of activities leading to environmental degradation by ordinary citizens**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	2	10.5	13	68.4	4	21.1
Destruction caused by panning activities	Destructive	%	Not destructive	%	Not sure	%
	12	63.2	2	10.5	5	26.3
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	1	5.3	12	63.2	6	31.5
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	14	73.7	2	10.5	3	15.8
Stream Bank agriculture	Yes	%	No	%	Not sure	%
	12	63.2	1	5.3	6	31.5

Table 5.5.2 above shows that most of the ordinary citizens said that gold panning was illegal because it was destructive. Those who were interviewed said that gold panning contaminated river water and it destroyed farm land. A small percentage of the ordinary citizens were not sure as to whether gold panning was legal or not. The gold panners were not prosecuted in most cases and some of those who were supposed to prosecute them were also involved in panning activities. Sometimes political office bearers encouraged the gold panners especially during election times to do the panning at will. The arguments by some ordinary citizens that some political office

bearers condone panning activities confirms why some ordinary citizens responded that they were not sure as to whether gold panning was legal or not.

According to the majority of the ordinary citizens the purpose of cutting down trees in the Mutasa district was for firewood. The second main reason for cutting down trees was for land use. Mutasa is a rural district without enough electricity, most of the respondents indicated that most fuel used for domestic purposes was firewood. Only a few people in the Mutasa district use electricity or paraffin.

The research findings showed that stream bank agriculture was also carried out in the Mutasa district of Zimbabwe as reflected by the majority of the respondents. The reason for the high rate of stream bank agriculture was poverty and drought. People scrambled for the wet lands along river banks when there was drought and sometimes they just did it as they searched for fertile soil. In so doing they also caused soil erosion and siltation. Some of them seemed not sure that stream bank agriculture was taking place in the Mutasa district and that land was being degraded. A small percentage of the respondents said that stream bank agriculture was not carried out in the Mutasa district. The small percentage of the respondents who showed ignorance of the availability of stream bank agriculture in the Mutasa district suggested that they have boreholes at their homesteads or they have water canals passing through their properties.

The ordinary citizens had to respond to questions relating to methods used to implement environmental legislation in the Mutasa district of Zimbabwe. Table 5.5.3 below shows how they responded.

**Table 5.5.3: Responses by ordinary citizens on methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	No	%	Not sure	%
	3	15.8	6	31.6	10	52.6
Prosecution of offenders	True	%	False	%	Sometimes	%
	2	10.5	5	26.3	12	63.2
Environmental education programmes offered	True	%	False	%	Rarely	%
	2	10.5	11	57.9	6	31.6
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	2	10.5	14	73.7	3	15.8

Most of the respondents indicated that environmental awareness programmes were not always available. Some of them acknowledged that environmental awareness programmes were available. The responses in table 5.5.3 above indicated that many people were not involved in the awareness programmes and were not aware of the availability of any such programmes. Those who were supposed to ensure that environmental awareness programmes were carried out did not always carry them out. The responses also indicated that on average offenders of environmental legislation were sometimes prosecuted. There was no consistency on the prosecution of offenders of environmental legislation in the Mutasa district of Zimbabwe.

The majority of the respondents indicated that environmental education programmes were not available. According to some of the respondents, environmental education programmes were rarely carried out. Those who acknowledged the availability of environmental education programmes were very few. The responses indicated that environmental education programmes did not fully exist in the Mutasa district of Zimbabwe. The above responses

justified why the majority of the respondents indicated that methods used to implement environmental legislation in the Mutasa district of Zimbabwe were ineffective. Only a few of the respondents said that the methods were effective and very few of the respondents were not sure of the effectiveness of the methods.

The foregoing analysis concentrated on categories of respondents who were likely to cause environmental degradation in the Mutasa district of Zimbabwe. Their responses showed similarities in most cases. When they were asked their opinions on what should be done to improve the implementation methods of environmental legislation most of them suggested that environmental awareness programmes were to be constantly carried out, people were to be educated on environmental issues and traditional leaders within local communities were to be involved in the environmental awareness programmes.

The succeeding part of the analysis will concentrate on responses from the categories of respondents who are expected to ensure that environmental legislation was effectively implemented. These categories included the Zimbabwe Republic Police, some officials from Mutasa rural district council and some officials from the Ministry of Environment and Tourism. All the categories of respondents for this research were asked to respond to similar questions.

The Zimbabwe Republic Police officers were asked to respond to questions relating to their awareness of environmental legislation. Their responses are recorded in section 5.6 below.

## 5.6 SUMMARY OF RESPONSES FROM ZIMBABWE REPUBLIC POLICE OFFICERS

Ten Zimbabwe Republic Police officers were sampled from the two police camps in the Mutasa district *vis-à-vis* Penhalonga and Ruda police camps. All ten officers responded to the questionnaires. Table 5.6.1 below highlights their responses.

**Table 5.6.1: Awareness of environmental legislation by the Zimbabwe Republic Police officers**

Environmental	Yes	%	No	%	Not sure	%
legislation read	6	60	4	40	0	0
legislation explained	7	70	3	30	0	0
Availability of environmental awareness programmes.	6	60	3	30	1	10

Most of the Zimbabwe Republic Police officers indicated that they had read some environmental legislation and the others had not read it. The majority of the Zimbabwe Republic Police officers acknowledged that some legislation had been explained to them. The small percentage of the respondents who indicated that environmental legislation had not been explained to them suggested that they were probably new recruits in the police force. Most of the respondents acknowledged that environmental awareness programmes were available. Some members of the Zimbabwe Republic Police indicated that environmental awareness programmes were not available while a

small percentage of the respondents said that they were not sure. The above responses suggested that the majority of the Zimbabwe Republic Police officers in the Mutasa district of Zimbabwe were familiar with environmental legislation either through reading or through awareness programmes.

The Zimbabwe Republic Police officers were also asked to respond to questions relating to their awareness of activities leading to environmental degradation. Table 5.6.2 below shows how they responded.

**Table 5.6.2: Awareness of activities leading to environmental degradation by the Zimbabwe Republic Police officers**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	0	0	10	100	0	0
Destruction caused by panning activities	Destructive	%	Not destructive	%	Not sure	%
	10	100	0	0	0	0
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	1	10	7	70	2	20
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	8	80	1	10	1	10
Stream Bank agriculture	Yes	%	No	%	Not sure	%
	7	70	1	10	2	20

All the Zimbabwe Republic Police officers who were sampled for this research acknowledged that panning activities were illegal. They also all indicated that panning was destructive. Asked about the purpose of cutting down trees most of the respondents acknowledged that trees were cut down for firewood since the main source of fuel for

domestic purposes in the Mutasa district of Zimbabwe was firewood. A small percentage of the respondents indicated that trees were cut down for land use. On sources of fuel for domestic use it was noted that the majority of the people in the Mutasa district used firewood. Electricity and paraffin were used on a very small scale because they were scarce and expensive. As most people in the district used firewood for domestic purposes it meant additional pressure on the limited natural resources and more damage to the environment. Better and effective methods were needed in order to save the forests and alternative forms of fuel for domestic purposes needed to be formulated. Most of the Zimbabwe Republic Police officers acknowledged that stream bank agriculture was carried out in the Mutasa district of Zimbabwe. A small percentage of the respondents were not sure whether stream bank agriculture was carried out in the Mutasa district of Zimbabwe. Another small percentage of the respondents indicated a negative response on the availability of stream bank agriculture. Those who indicated a negative response and those who were not sure suggested that they were either new recruits or were those officers who worked at the two camps and did not patrol the district.

Finally the Zimbabwe Republic Police officers were also asked to respond to questions relating to methods used to implement environmental legislation in the Mutasa district of Zimbabwe. Table 5.6.3 below shows their responses.



**Table 5.6.3: Responses by Zimbabwe Republic Police officers on the methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	No	%	Not sure	%
	7	70	0	0	3	30
Prosecution of offenders	True	%	False	%	Sometimes	%
	6	60	0	0	4	40
Environmental education programmes offered	True	%	False	%	Rarely	%
	8	80	0	0	2	20
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	6	60	2	20	2	20

According to the majority of the Zimbabwe Republic Police officers, environmental awareness programmes were available in the Mutasa district of Zimbabwe. Some of them said that environmental awareness programmes were not always carried out. There was a need to be consistent with environmental awareness programmes as a method of effecting environmental legislation in the Mutasa district of Zimbabwe. Most of the respondents also acknowledged that offenders of environmental legislation were prosecuted but some of them indicated that they were not always prosecuted.

Asked about the availability of environmental education programmes in the Mutasa district of Zimbabwe the greatest percentage of the respondents acknowledged that such programmes were available. A small percentage of the respondents indicated that such programmes were rarely carried out. The responses suggested that even though environmental education programmes were carried out in the Mutasa district of Zimbabwe they needed to be more consistent than was the case. Most of the respondents indicated that methods used to

implement environmental legislation in the Mutasa district of Zimbabwe were effective. A small percentage of the respondents indicated that they were not effective and an equally small percentage said that they were not sure. The responses on the effectiveness of methods used to implement environmental legislation suggested that the methods were ineffective. There is clearly a need to improve the effectiveness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe.

Officials from Mutasa district council were also asked to respond to similar questions as the Zimbabwe Republic Police. Their responses are presented in section 5.7 below.

### **5.7 SUMMARY OF RESPONSES FROM MUTASA RURAL DISTRICT COUNCIL OFFICIALS**

Five officials from Mutasa rural district council were sampled for this research. Mutasa rural district council is the responsible authority within which the research was carried out. Table 5.7.1 below shows how they responded to questions relating to their awareness of environmental legislation.

**Table 5.7.1: Awareness of environmental legislation by Mutasa rural district council officials**

	Yes	%	No	%	Not sure	%
Environmental legislation read	4	80	1	20	0	0
Environmental legislation explained	3	60	2	40	0	0
Availability of environmental awareness programmes.	4	80	1	20	0	0

The majority of the respondents indicated that they had read some environmental legislation and that some environmental legislation had been explained to them. A small percentage of the respondents had not read any environmental legislation. As a responsible authority it was imperative that most of the respondents acknowledged the availability of environmental awareness programmes in the district. The small percentage of the respondents who indicated a negative response on environmental awareness programmes suggested that they were either new recruits or they were not part of the team responsible for environmental awareness programmes in the Mutasa district. The small percentage of the respondents who indicated that environmental legislation had not been explained to them suggested that there was a need to improve awareness programmes even among the officials from the Mutasa rural district council.

The Mutasa rural district council officials were also asked to respond to questions relating to their awareness of activities leading to environmental degradation in the district. Table 5.7.2 below shows a record of their responses.

**Table 5.7.2: Awareness of activities leading to environmental degradation by Mutasa rural district council officials**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	0	0	4	80	1	20
Destruction caused by panning	Destructive	%	Not destructive	%	Not sure	%
	5	100	0	0	0	0
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	1	20	3	60	1	20
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	4	80	1	20	0	0
Stream Bank agriculture	Yes	%	No	%	Not sure	%
	3	60	1	20	1	20

Most of the respondents indicated that gold panning was illegal in the Mutasa district of Zimbabwe. A small percentage of the respondents were not sure. To confirm the illegality of panning activities in the Mutasa district, all the Mutasa rural district council officials acknowledged that panning activities were destructive. On the purpose of cutting down trees, most of the respondents indicated that trees were cut down for firewood. This confirmed that people in the Mutasa district used more firewood than electricity or paraffin for domestic purposes. Most of the respondents acknowledged that firewood was mostly used as fuel for domestic purposes. The other small percentage of the respondents used electricity for domestic purposes. Again on the purpose of cutting down trees the respondents indicated that trees were cut down for sale in order to cushion economic hardships. A small percentage of the respondents indicated that trees were cut down to prepare land for agricultural purposes or for resettlement.

Stream bank agriculture was taking place in the Mutasa district as indicated by the majority of the respondents. A small percentage of the respondents were not sure and another equal small percentage of the respondents indicated a negative response. Mutasa rural district council must step up effective methods to ensure that stream bank agriculture was reduced.

Mutasa rural district council officials were also asked to respond to questions relating to methods used to implement environmental legislation in their district. Table 5.7.3 below shows how they responded.

**Table 5.7.3: Responses by Mutasa rural district council officials on methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	No	%	Not sure	%
	4	80	0	0	1	20
Prosecution of offenders	True	%	False	%	Sometimes	%
	2	40	0	0	3	60
Environmental education programmes offered	True	%	False	%	Rarely	%
	3	60	0	0	2	40
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	3	60	1	20	1	20

According to most of the officials from Mutasa rural district council environmental awareness programmes in the Mutasa district were available. A small percentage of the respondents indicated that although environmental awareness programmes were available in the Mutasa district of Zimbabwe they were not always carried out. A small percentage of the respondents also indicated that environmental education programmes were rarely offered in the Mutasa district. Most of the respondents acknowledged that environmental education programmes were offered in the Mutasa district. Asked whether offenders of environmental legislation were prosecuted a small percentage of the respondents indicated that they were sometimes prosecuted. The responses suggested that offenders of environmental legislation in the Mutasa district were not always prosecuted. When asked about effectiveness of methods used in the implementation of environmental legislation in the district, most of the respondents indicated that they were effective, a small percentage of the respondents said that they were ineffective and another small percentage of the respondents said that they were not sure.

Effectiveness of any method is determined by its output. The majority of the respondents indicated that offenders of environmental legislation were rarely prosecuted. The responses suggested that there was a need for consistency in the prosecution of offenders of environmental legislation in order to reduce environmental degradation in the Mutasa district of Zimbabwe.

The last category of respondents for this research were officials from the Ministry of Environment and Tourism in Zimbabwe. In the succeeding section their responses are presented, analysed and interpreted.

## **5.8 SUMMARY OF RESPONSES FROM MINISTRY OF ENVIRONMENT AND TOURISM OFFICIALS**

Five respondents from the Ministry of Environment and Tourism officials were sampled for this research and were asked similar questions like all the other categories of respondents. Table 5.8.1 shows how they responded to questions relating to their awareness of environmental legislation.

**Table 5.8.1: Awareness of environmental legislation by Ministry of Environment and Tourism officials**

Environmental legislation read	Yes	%	No	%	Not sure	%
	5	100	0	0	0	0
Environmental legislation explained	5	100	0	0	0	0
Availability of environmental awareness programmes.	5	100	0	0	0	0

All the respondents indicated that they had read some environmental legislation, some environmental legislation had been explained to them and they all acknowledged that environmental awareness programmes were being carried out in the Mutasa district of Zimbabwe. The results of their responses confirmed that as Ministry of Environment and Tourism officials they were mandated by government to be the custodians of Zimbabwe's natural resources and as such they had to be conversant with the laws that govern their operations and the activities that go along with their operations.

The Ministry of Environment and Tourism officials were also asked to respond to questions relating to their awareness of activities leading to environmental degradation. Table 5.8.2 shows how they responded.

**Table 5.8.2: Awareness of activities leading to environmental degradation by Ministry of Environment and Tourism officials**

Legality of panning activities	Legal	%	Illegal	%	Not sure	%
	0	0	5	100	0	0
Destruction caused by panning activities	Destructive	%	Not destructive	%	Not sure	%
	5	100	0	0	0	0
Purpose of cutting down trees	Sale	%	Firewood	%	Land use	%
	1	20	3	60	1	20
Sources of fuel for domestic use	Firewood	%	Electricity	%	Paraffin	%
	3	60	1	20	1	20
Stream Bank agriculture	Yes	%	No	%	Not sure	%
	4	80	0	0	1	20

All the respondents acknowledged that gold panning was illegal and that panning activities were destructive. It is one of the aims of the Ministry of Environment and Tourism in Zimbabwe to monitor and discourage all activities that degrade the environment. The acknowledgement by all respondents from the Ministry of Environment and Tourism officials that panning activities destroy the environment suggested that the Ministry of Environment and Tourism together with all stakeholders must develop effective methods to ensure that environmental legislation was adhered to and that panning activities were controlled. Most of the Ministry of Environment and Tourism officials also acknowledged that the purpose of cutting down trees was for firewood. A small percentage of the respondents indicated that firewood was also cut down for sale and another smaller percentage of the respondents indicated that trees were cut down for land use. Sale of firewood without a license was illegal in Zimbabwe. Many rural people in Zimbabwe cannot afford electricity or paraffin. Firewood is cheaper and easy to get but it destroys the environment. Asked about the availability of stream bank agriculture in the Mutasa district most of the respondents indicated a positive response. A small percentage of the respondents were not sure. Even though stream bank agriculture was said to be illegal it was still practised in the Mutasa district of Zimbabwe. The Ministry of Environment and Tourism was encouraged to set up measures to reduce stream bank agriculture because it degrades the environment. Proper methods must be put in place to ensure that environmental laws are effective.

Lastly the Ministry of Environment and Tourism officials were also asked to respond to questions relating to methods used to implement environmental legislation in the Mutasa district of Zimbabwe. Table 5.8.3 below shows how they responded.



**Table 5.8.3: Responses by Ministry of Environment and Tourism officials on methods used to implement environmental legislation**

Availability of awareness programmes	Available	%	No	%	Not sure	%
	3	60	0	0	2	40
Prosecution of offenders	True	%	False	%	Sometimes	%
	3	60	0	0	2	40
Environmental education programmes offered	True	%	False	%	Rarely	%
	4	80	0	0	1	20
Effectiveness of methods used	Effective	%	Ineffective	%	Not sure	%
	4	80	0	0	1	20

From table 5.8.3 above most of the respondents acknowledged that environmental awareness programmes were available in the Mutasa district of Zimbabwe. A small percentage of the respondents indicated that even though environmental awareness programmes were available they were not always carried out. Most of the respondents indicated that offenders of environmental legislation were prosecuted but some of them indicated that prosecution of offenders was not always done. The responses indicated lack of consistency in effecting environmental legislation. When asked about availability of environmental education programmes, most of the respondents were positive and a few of them indicated that such programmes were rarely carried out. The Ministry of Environment and Tourism officials were also asked about the effectiveness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe, most of them indicated that they were effective and a few of them were not sure. The few who were not sure of the effectiveness of the methods used to implement environmental legislation in the Mutasa district suggested that there were some officials who were not

involved in ensuring the effectiveness of activities carried out by the Ministry of Environment and Tourism.

When the Zimbabwe Republic Police officials, Mutasa rural district council officials and Ministry of Environment and Tourism officials were asked about their opinion on what should be done to improve the methods used to implement environmental legislation, their overall feelings were that there was a clear need to educate communities on environmental issues, to increase environmental awareness programmes and to constantly prosecute offenders of environmental legislation.

Research findings from all the categories of respondents have been presented, analysed and interpreted in the foregoing sections. The following is a summary of all responses presented in the three categories namely a summary of responses on awareness of environmental legislation, a summary of responses on activities leading to environmental degradation and a summary of responses on methods used to implement environmental legislation in the Mutasa district of Zimbabwe. Average responses are also recorded on the summary tables in each category.

## **5.9 SUMMARY OF ALL THE RESPONSES**

Table 5.9.1 below shows a summary of responses from all the seven categories of respondents on their awareness of environmental legislation. All the figures shown have been expressed as percentage responses per each category. Average percentage responses per each category of respondents are also shown on the table. A key has been provided to ensure that different categories of respondents and their responses are understood.

**Table 5.9.1: Summary of all the responses on awareness of environmental legislation**

	GP			RF			HW			Ord. Cit			ZRP			MRDCO			METO			AVERAGE RESPONSES		
	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S
Environmental legislation read	33.3	66.7	0	26.3	73.7	0	10	85	5	15.8	84.2	0	60	40	0	80	20	0	100	0	0	46.5	52.8	0.7
Environmental legislation explained	50	50	0	63.2	36.8	0	30	65	5	26.3	73.7	0	70	30	0	60	40	0	100	0	0	57.1	42.2	0.7
Availability of environmental awareness programmes	11.1	83.3	5.6	21.1	68.4	10.5	15	75	10	31.5	63.2	5.3	60	30	10	80	20	0	100	0	0	45.5	48.6	5.9

**KEY**

- |          |   |   |     |   |            |
|----------|---|---|-----|---|------------|
| GP       | - | Gold panners                                  | HW  | - | Housewives |
| Ord. Cit | - | Ordinary citizens                             | N   | - | No         |
| ZRP      | - | Zimbabwe Republic Police                      | N/S | - | Not sure   |
| RF       | - | Resettled farmers                             | Y   | - | Yes        |
| METO-    |   | Ministry of Environment and Tourism officials |     |   |            |
| MRDCO-   |   | Mutasa rural district council officials       |     |   |            |

From the responses in table 5.9.1 above, responses from those whose activities were likely to cause environmental degradation like the gold panners, resettled farmers, housewives and ordinary citizens were more negative on all the three questions which were meant to test their awareness of environmental legislation. Responses from the Zimbabwe Republic Police officers, Mutasa rural district council

officials and Ministry of Environment and Tourism officials were more positive on all the three questions. The pattern of responses suggested that those whose activities were likely to cause environmental degradation were less informed on environmental issues. Those who were expected to ensure that environmental awareness programmes were disseminated to communities like the Zimbabwe Republic Police, Mutasa rural district council officials and the Ministry of Environment and Tourism officials were aware of existing environmental legislation. The contrast in their responses suggested that those who were expected to disseminate environmental legislation and carry out environmental awareness programmes were not effectively fulfilling their tasks. The result was that those whose activities were likely to cause environmental degradation continued with their activities and environmental degradation continued to be experienced in the Mutasa district of Zimbabwe.

Average responses recorded in table 5.9.1 above indicated that less than half of all the respondents had read some environmental legislation and more than half of them had not. On whether environmental legislation had been explained to the respondents most of them indicated a positive response and less than half of the respondents responded negatively. Less than half of all the respondents indicated that environmental awareness programmes were available in the Mutasa district of Zimbabwe. The average responses indicated that there was a need to increase environmental education and environmental awareness programmes in the Mutasa district of Zimbabwe.

A summary of all responses on activities leading to environmental degradation in the Mutasa district of Zimbabwe is given in table 5.9.2 below.

**Table 5.9.2: Summary of all the responses on activities leading to environmental degradation**

	GP			RF			HW			Ord. Cit			ZRP			MRDCO			METO			AVERAGE RESPONSES		
Legality of panning activities	L	IL	N/S	L	IL	N/S	L	IL	N/S	L	IL	N/S	L	IL	N/S	L	IL	N/S	L	IL	N/S	L	IL	N/S
	11.1	61.1	27.8	5.3	78.9	15.8	0	85	15	10.5	68.4	21.1	0	100	0	0	80	20	0	100	0	3.9	81.9	14.2
	D	N/D	N/S	D	N/D	N/S	D	N/D	N/S	D	N/D	N/S	D	N/D	N/S	D	N/D	N/S	D	N/D	N/S	D	N/D	N/S
Destruction caused by panning activities	66.7	11.1	22.2	89.5	0	10.5	90	0	10	63.2	10.5	26.3	100	0	0	100	0	0	100	0	0	87.0	3.1	9.9
	S	FW	LU	S	FW	LU	S	FW	LU	S	FW	LU	S	FW	LU	S	FW	LU	S	FW	LU	S	FW	LU
	11.1	66.7	22.2	10.5	73.7	15.8	5	85	10	5.3	63.2	31.5	10	70	20	20	60	20	20	60	20	11.7	68.4	19.9
Purpose of cutting down trees	FW	Ele	Par	FW	Ele	Par	FW	Ele	Par	FW	Ele	Par	FW	Ele	Par	FW	Ele	Par	FW	Ele	Par	FW	Ele	Par
	61.1	22.2	16.7	84.2	10.5	5.3	90	5	5	73.7	10.5	15.8	80	10	10	80	20	0	60	20	20	75.6	14.0	10.4
	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S
Source of fuel for domestic use	83.3	5.6	11.1	73.7	5.3	21	85	5	10	63.2	5.3	31.5	70	10	20	60	20	20	80	0	20	73.6	7.3	19.1
	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S
	83.3	5.6	11.1	73.7	5.3	21	85	5	10	63.2	5.3	31.5	70	10	20	60	20	20	80	0	20	73.6	7.3	19.1
Stream bank agriculture	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S	Y	N	N/S
	83.3	5.6	11.1	73.7	5.3	21	85	5	10	63.2	5.3	31.5	70	10	20	60	20	20	80	0	20	73.6	7.3	19.1
	83.3	5.6	11.1	73.7	5.3	21	85	5	10	63.2	5.3	31.5	70	10	20	60	20	20	80	0	20	73.6	7.3	19.1

**KEY**

- |           |   |                          |     |   |                 |
|-----------|---|--------------------------|-----|---|-----------------|
| GP        | - | Gold panners             | D   | - | Destructive     |
| RF        | - | Resettled farmers        | N/D | - | Not destructive |
| HW        | - | Housewives               | S   | - | Sale            |
| Ord. Cit- | - | Ordinary citizens        | FW  | - | Firewood        |
| ZRP       | - | Zimbabwe Republic Police |     |   |                 |

Ele	-	Electricity	L	-	Legal
Par	-	Paraffin	IL	-	Illegal
Y	-	Yes	N/S	-	Not sure
N	-	No			
MRDCO-		Mutasa rural district council officials			
METO-		Ministry of Environment and Tourism officials			

Tabled 5.9.2 above indicates average responses from all the seven categories of respondents on their awareness of activities leading to environmental degradation. The highest percentage of responses from all the categories of respondents acknowledged that panning activities were illegal in the Mutasa district of Zimbabwe. Only a small percentage of the respondents indicated that panning was legal and another smaller percentage of the respondents were not sure of the legal status of panning activities in the Mutasa district of Zimbabwe. Of interest were responses from gold panners, most of them acknowledged that panning was illegal and was destructive. On average most of the respondents acknowledged that panning activities were destructive.

Mutasa district is a rural district and has limited electricity supplies. Paraffin which could be used for domestic purposes is not easily available. Many people in the district are not able to access either electricity or paraffin for domestic purposes. The majority of the people in the Mutasa district of Zimbabwe used firewood as a source of fuel for domestic purposes. Table 5.9.2 above indicates the responses from all the seven categories of respondents on sources of fuel for domestic purposes. From the responses most of the respondents acknowledged that trees were mainly cut down for firewood. The high percentage of responses on the purpose of cutting down trees was complemented by a high percentage of average

respondents who acknowledged that sources of fuel for domestic use in the Mutasa district of Zimbabwe was firewood. Only a small percentage of the respondents indicated that they used electricity and paraffin. The research findings indicated that the majority of people in the Mutasa district of Zimbabwe used firewood as their source of fuel for domestic purposes.

When the respondents were asked about the availability of stream bank agriculture in the Mutasa district of Zimbabwe, most of them indicated that it was available. Some of the respondents were not sure and a small percentage of the respondents indicated a negative response. From the research findings it was acknowledged that stream bank agriculture was taking place in the Mutasa district of Zimbabwe. There seems to be a clear need to institute effective measures against stream bank agriculture if soil erosion and siltation were to be minimized in the Mutasa district of Zimbabwe.

A summary of responses on methods used to implement environmental legislation in the Mutasa district of Zimbabwe is provided in table 5.9.3 below.

**Table 5.9.3: Summary of all the responses on methods used to implement environmental legislation**

	GP			RF			HW			Ord. Cit			ZRP			MRDCO			METO			AVERAGE RESPONSES		
	11.1	72.2	16.7	10.5	63.2	26.3	5	80	15	10.5	73.7	15.8	60	20	20	60	20	20	80	0	20	33.9	47.0	19.1
Availability of awareness programmes	AV	N/AV	N/A	AV	N/AV	N/A	AV	N/AV	N/A	AV	N/AV	N/A	AV	N/AV	N/A	AV	N/AV	N/A	AV	N/AV	N/A	AV	N/AV	N/A
Prosecution of offenders	T	F	ST	T	F	ST	T	F	T	T	F	ST	T	F	ST	T	F	ST	T	F	ST	T	F	ST
Environmental education programmes offered	T	F	R	T	F	R	T	F	R	T	F	R	T	F	R	T	F	R	T	F	R	T	F	R
Effectiveness of methods used	E	IE	NS	E	IE	NS	E	IE	NS	E	IE	NS	E	IE	NS	E	IE	NS	E	IE	NS	E	IE	NS
	11.1	72.2	16.7	10.5	63.2	26.3	5	80	15	10.5	73.7	15.8	60	20	20	60	20	20	80	0	20	33.9	47.0	19.1

**KEY**

- GP - Gold panners      E - Effective  
 RF - Resettled farmers      IE - Ineffective  
 HW - Housewives      F - False  
 Ord. Cit- Ordinary citizens      ST - Sometimes  
 ZRP - Zimbabwe Republic Police  
 MRDCO- Mutasa rural district council officials  
 AV - Available      R - Rarely  
 N/AV - Not available      T - True  
 N/A - Not always      N/S - Not sure  
 METO- Ministry of Environment and Tourism officials



Table 5.9.3 above shows the average responses of the seven categories of respondents on methods used to implement environmental legislation in the Mutasa district of Zimbabwe. The summary of responses showed some contradictions between categories of respondents whose activities were likely to cause environmental degradation and those who were expected to ensure that environmental degradation was minimized. Gold panners, resettled farmers, housewives and ordinary citizens responded more negatively on the availability of environmental awareness programmes in the Mutasa district of Zimbabwe. The Zimbabwe Republic Police, officials from Mutasa rural district council and officials from the Ministry of Environment and Tourism in Zimbabwe responded more positively on the same question. The average responses on all the respondents on whether environmental legislation was available in the Mutasa district were lower than those who acknowledged that even though environmental awareness programmes were available in the Mutasa district of Zimbabwe they were not always carried out. The responses suggested that there seem to be a clear need to improve on consistency and availability of environmental awareness programmes in the Mutasa district of Zimbabwe.

Similar trends of responses were experienced when all the respondents were asked whether offenders of environmental legislation were prosecuted in the Mutasa district of Zimbabwe. The average responses indicated that less than half of the respondents acknowledged that offenders of environmental legislation were prosecuted. More than half of the respondents indicated that offenders of environmental legislation were sometimes prosecuted. The responses indicated a lack of consistency on the prosecution of offenders of environmental legislation in the Mutasa district of

Zimbabwe. When the respondents were asked about the availability of environmental education programmes within the district, less than half of them indicated a positive response. A small percentage of the respondents indicated a negative response and the greater percentage of the respondents indicated that environmental education programmes were rarely available. The responses suggested that while environmental education programmes were available in the Mutasa district of Zimbabwe they were rarely carried out or they did not involve the majority of those people whose activities were likely to cause environmental degradation.

Finally, all the respondents were asked whether methods used to implement environmental legislation in the Mutasa district of Zimbabwe were effective. The greatest percentage of the respondents indicated that methods used to implement environmental legislation in the Mutasa district were ineffective. A small percentage was not sure. As observed from table 5.9.3 above those who were supposed to ensure that environmental laws were observed indicated high positive responses on effectiveness of methods used to implement environmental legislation as compared to those whose activities were likely to cause environmental degradation. The responses suggested that most of the Zimbabwe Republic Police, Mutasa rural district council officials and officials from the Ministry of Environment and Tourism were aware of the environmental legislation in Zimbabwe but they were not effectively imparting their knowledge to the people within their communities. They were not constantly educating their communities or carrying out environmental awareness programmes within their communities. When communities are ignorant of the negative impact of their activities on natural resources, environmental degradation will continue to be on the increase and the limited natural resources will continue to be depleted.

## 5.10 CONCLUSION

In this chapter data collected through the use of questionnaires and interviews to assess the effectiveness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe were presented, analysed and interpreted. Tables were used for each category of respondents and the responses were recorded as percentages of total responses in each category of all responses and average responses were also shown (*supra*: tables 5.9.1, 5.9.2 and 5.9.3).

The research findings indicated that environmental awareness programmes, environmental education programmes and prosecution of offenders of environmental legislation were not always carried out in the Mutasa district of Zimbabwe. Gold panning activities, stream bank agriculture and indiscriminate cutting down of trees were on the increase in the Mutasa district of Zimbabwe. Political office bearers sometimes condoned the illegal activities for personal gains. Those who were expected to ensure that environmental legislation were effectively implemented were not carrying out their duties as expected. There was a lack of consistency on the methods used to implement environmental legislation in the Mutasa district of Zimbabwe. The research revealed that most gold panners, resettled farmers, housewives and ordinary citizens are unaware of environmental legislation which govern the use of the environment. On the contrary, the Zimbabwe Republic Police, the Mutasa rural district council officials and the officials from the Ministry of Environment and Tourism were aware of the environmental legislation. Most of the respondents agreed that gold panning was illegal because it destroys the natural resources. The respondents

also agreed that trees were cut down for firewood because the main source of fuel in the Mutasa district of Zimbabwe is firewood. Most of the respondents also indicated that stream bank agriculture was on the increase in the district.

The research showed two distinct views on the methods used to implement environmental legislation in the Mutasa district of Zimbabwe. On one hand most of the gold panners, resettled farmers, housewives and ordinary citizens said that the methods used to implement environmental legislation in the Mutasa district of Zimbabwe were ineffective. On the other hand the Zimbabwe Republic Police, officials from Mutasa rural district council and officials from the Ministry of Environment and Tourism said that the methods used to implement environmental legislation in the Mutasa district of Zimbabwe were effective.

From the research findings it was evident that methods used to implement environmental legislation in the Mutasa district of Zimbabwe were ineffective.

In the next chapter an overall summary of the entire research project, the research findings and some proposals will be provided.

## **CHAPTER 6**

### **SUMMARY, RESEARCH FINDINGS AND PROPOSALS**

#### **6.1 INTRODUCTION**

The primary purpose of this research project was to assess the effectiveness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe. In this chapter a summary of the research findings shall be given and possible proposals for improvement shall be provided.

#### **6.2 SUMMARY**

In this research project an assessment of the effectiveness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe was made. Data was collected through the use of questionnaires and interviews. One hundred respondents were purposefully sampled from two main groups, those whose activities were likely to cause environmental degradation and those whose main task was to ensure that environmental laws were adhered to. The former group consisted of twenty gold panners, twenty resettled farmers, twenty housewives and twenty ordinary citizens. The later group consisted of ten Zimbabwe Republic Police officers in the Mutasa district, five officials from Mutasa rural district council and five officials from the Ministry of Environment and Tourism.

Of the one hundred sampled respondents two gold panners, one resettled farmer and one ordinary citizen did not respond to the questionnaires. Respondents who were finally involved in this research were ninety-six. All the seven categories of respondents were

asked to respond to questions which related to their awareness of environmental legislation, section B, awareness of activities leading to environmental degradation, section C, and awareness of methods used to implement environmental legislation in the Mutasa district of Zimbabwe, section D, the last section on the questionnaire, section E, sought the respondents' personal opinion on possible methods they thought could be used to improve the implementation of environmental legislation in the Mutasa district of Zimbabwe.

Before the data was collected from the respondents the researcher had to provide a general introduction to the study in chapter one. In the general introduction to the study the following issues were described: background to the study, statement of the problem, scope of the research and demarcation of the period of the study, conceptualization, terminology, methods of data collection, methods of data analysis and interpretation and an overview of all the chapters of the research. In the background to the study, three historical phases in Zimbabwe namely the pre-colonial phase, the colonial phase and the post-colonial phase were highlighted in their relationship to environmental legislation and methods used to implement environmental legislation.

In chapter two of this dissertation a general overview of the concept of public policy was given, the policy-making process was explained and theories on public policy and environmental legislation in Zimbabwe as public policy were analysed. Emphasis was put on the implementation of public policy as a component of the policy-making process. Three theories on public policy which were described were the rational choice theory, the public choice theory and the interest-group theory. The theories were described in terms of their relevance and relationship to environmental legislation and how environmental

legislation could be implemented. Environmental policy in Zimbabwe was analysed in chapter three. A detailed historical background of environmental policy in Zimbabwe was given. A structural component of how environmental laws were disseminated to local communities in Zimbabwe, how environmental policy manifested themselves in the Mutasa district of Zimbabwe and how environmental legislation was implemented in the Mutasa district of Zimbabwe was analysed. Institutions which were involved in the implementation of environmental legislation in the Mutasa district of Zimbabwe were also highlighted. The research methodology was provided in chapter four. The researcher preferred the qualitative research design because of its various advantages (*supra*: section 4.2). A purposive random sampling of the respondents as highlighted in the foregoing paragraphs (*supra*: section 4.3) was used for the population sample. Questionnaires and interviews were used as research instruments. Similar questions were used for both the questionnaire and the interviews. Interviews were used mainly to collect data from those who were illiterate like some gold panners, resettled farmers, housewives and ordinary citizens. Interviews were also used to elaborate where responses were unclear. Before the research was carried out the researcher had to seek permission from those in authority such as the Member-in-Charge at Penhalonga police station, the Chief Executive Officer of Mutasa rural district council and the Ministry of Environment and Tourism in Zimbabwe.

When all the data was collected the researcher presented it in tabular form where it was analysed and interpreted. Responses from each category were expressed as percentages of total responses per each category. Average responses and summaries of all responses were recorded (*supra*: tables 5.9.1, 5.9.2 and 5.9.3).

In table 5.9.1 respondents were asked to respond to questions relating to their awareness of environmental legislation. Average responses indicated that more than half of all the respondents had never read environmental legislation and less than half of the respondents indicated that environmental awareness programmes were not available in the Mutasa district of Zimbabwe.

Table 5.9.2 indicated average responses on activities leading to environmental degradation. The majority of the respondents acknowledged that panning activities were destructive and that they were illegal. The average responses on the same table also showed that many people in the Mutasa district of Zimbabwe cut down trees for use as firewood because their main source of fuel for domestic purposes was firewood. It was also noted from table 5.9.2 that stream bank agriculture was taking place in the Mutasa district of Zimbabwe. More than half of all the respondents agreed that stream bank agriculture was taking place in the Mutasa district of Zimbabwe.

Table 5.9.3 shows average responses on methods used to implement environmental legislation in the Mutasa district of Zimbabwe. The responses indicated that environmental awareness programmes were not always carried out. Offenders of environmental legislation were not always prosecuted and environmental education programmes were rarely carried out. From all the respondents of this research the greatest percentage indicated that methods used to effect environmental legislation in the Mutasa district of Zimbabwe were ineffective. A smaller percentage indicated that the methods were effective and the smallest percentage indicated that they were not sure.



### **6.3 RESEARCH FINDINGS**

The research findings have revealed that one of the main causes of environmental degradation in the Mutasa district of Zimbabwe is poverty. Activities like gold panning, stream bank agriculture and indiscriminate cutting down of trees in the Mutasa district are a result of poverty. Trees in the Mutasa district of Zimbabwe are mainly cut down for firewood. Mutasa is a rural district where other sources of fuel for domestic purposes like electricity and paraffin are scarce. Stream bank agriculture has caused a lot of siltation in the district. Panning activities have degraded lands which were suitable for farming and grazing purposes and have left rivers polluted. Another cause of environmental degradation in the Mutasa district of Zimbabwe is a lack of consistency when effecting environmental legislation. Awareness programmes are rarely carried out and environmental education programmes are inconsistent. Those who are expected to ensure that environmental awareness programmes and environmental education programmes are carried out are not reaching out to local communities. The result is that environmental degradation remains on the increase in the Mutasa district of Zimbabwe. Another notable reason for the increase in environmental degradation in the Mutasa district of Zimbabwe is a lack of political will. Political officials preferred to protect their political positions at the expense of the environment which gives life today and in the future. Offenders of environmental legislation are rarely prosecuted. The Zimbabwe Republic Police become ineffective when political office bearers condone activities leading to environmental degradation.

From the research findings it has been noted that methods used to implement environmental legislation in the Mutasa district of Zimbabwe are not effective. Activities leading to environmental degradation like gold panning, deforestation and stream bank agriculture continue to exist in the Mutasa district. It is evident from this research that methods used to implement environmental legislation in the Mutasa district of Zimbabwe are ineffective. The succeeding section provides some proposals which can be used in the implementation of environmental legislation in the Mutasa district of Zimbabwe.

#### **6.4 PROPOSALS**

The following proposals are intended for all stakeholders who are involved in the management of the environment like the government of Zimbabwe through its relevant ministries and departments, the parastatals, non-governmental organizations, local communities, traditional leaders and all those whose activities are likely to cause environmental degradation:

6.4.1 Environmental awareness programmes and environmental education programmes should be constantly carried out so that those whose activities are likely to cause environmental degradation are reminded timeously.

6.4.2 All stakeholders concerned with environmental management and sustainable development should be well coordinated and work together harmoniously to enhance effectiveness in their work and avoid duplication and unnecessary clashes.

- 6.4.3 Environmental legislation should be summarized and made available in simplified language and even translated into local languages so that more of the illiterate people are able to read and understand it.
- 6.4.4 Local communities should be encouraged to have wood lots to supplement fuel for domestic use. Cutting down of the natural trees for firewood must be discouraged.
- 6.4.5 Local communities should be involved in environmental management programmes and traditional leaders like chiefs and headmen should be given more authority to ensure that natural resources within their communities are sustainably utilized.
- 6.4.6 Gold panners should be given operating licenses so that they can be controlled. Environment impact assessments should be constantly carried out in order to control environmental degradation whenever and wherever panning activities which are likely to cause environmental degradation are carried out.
- 6.4.7 Operating licenses should be withdrawn from people who cause environmental degradation.
- 6.4.8 The Zimbabwe Republic Police should work more closely and effectively with the Mutasa rural district council and the Ministry of Environment and Tourism to ensure that stream bank agriculture and indiscriminate cutting down of trees are limited. Offenders of environmental legislation should be constantly prosecuted.

6.4.9 Political officials at all levels and all times should be more willing to ensure that environmental management programmes are effectively carried out.

6.4.10 Environmental education and awareness programmes should be incorporated into the school curriculum through the Ministry of Education, Sport and Culture in Zimbabwe and should be introduced from primary school level to tertiary level.

6.4.11 The government of Zimbabwe should incorporate other non-governmental organisations such as Environment Africa and the Zimbabwe Environmental Law Association in the dissemination of environmental awareness and environmental education programmes.

## **6.5 CONCLUSION**

In this chapter a summary of the entire research findings was given and the research findings were highlighted. Some proposals to the relevant authorities were provided. Some of the proposals provided include educating communities on environmental matters, carrying out environmental awareness programmes and coordinating all stakeholders concerned with environmental management and sustainable development. Other proposals highlighted the provision of summarized environmental legislation in simplified language, translation of the legislation into local languages and involving local communities and traditional leaders in environmental management programmes. The proposals provided are intended for all stakeholders who are involved in the management of the environment in the Mutasa district of Zimbabwe and those who are concerned

with sustainable utilization of our natural resources. It is the researcher's hope that the proposals will be considered and put into effect.

In assessing the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district of Zimbabwe the research revealed various shortfalls. Methods used to implement environmental legislation in the Mutasa district of Zimbabwe are ineffective. Poverty is the main cause of environmental degradation. Gold panners, resettled farmers, housewives and ordinary citizens exploit the limited natural resources unsustainably thereby causing serious environmental degradation. The political officials in the district lack the political will to ensure sustainable utilization of the limited natural resources.

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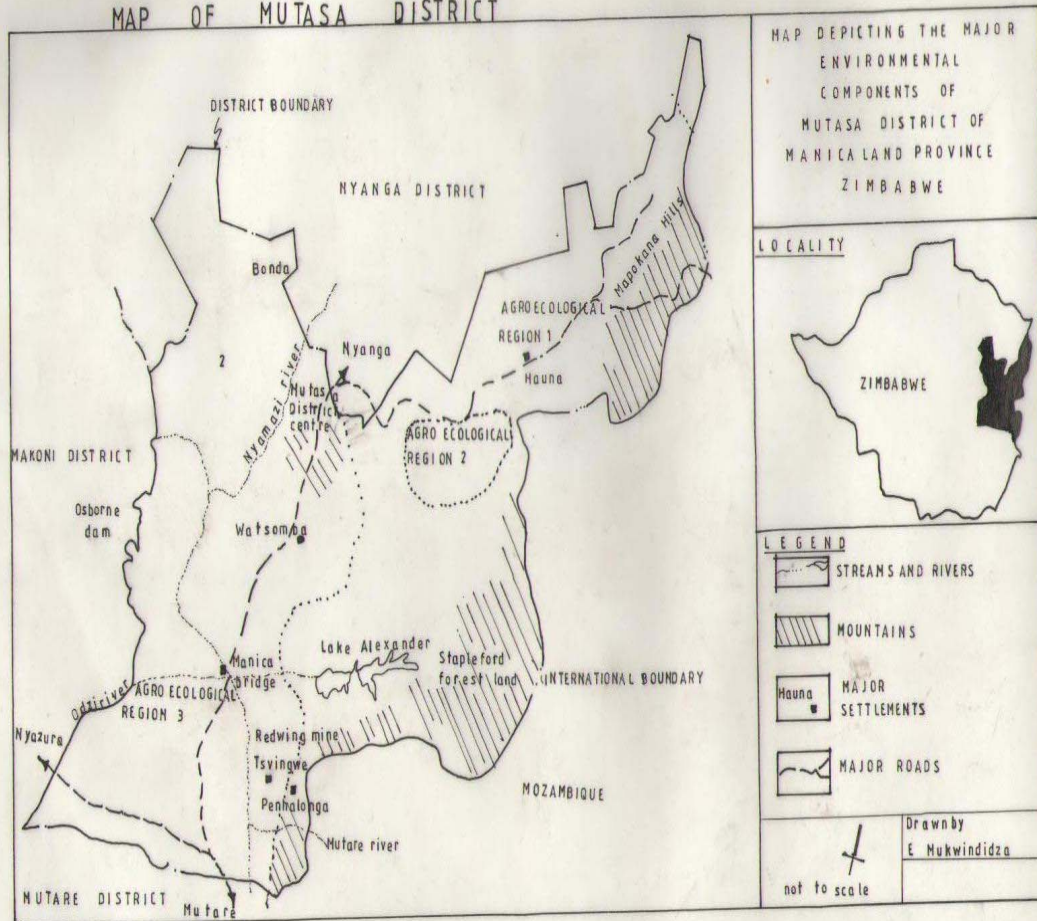
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# APPENDIX 1

## MAP OF MUTASA DISTRICT



## **APPENDIX II**

### **LETTER TO SEEK PERMISSION FROM MUTASA RURAL DISTRICT COUNCIL**

Hartzell C.P.S  
P.B. P 7024  
Mutare  
ZIMBABWE

10 April 2007

The Chief Executive Officer  
Mutasa Rural District Council  
P. Bag J7116  
Mutare  
Zimbabwe

Dear sir/Madam

**RE: APPLICATION TO SEEK YOUR PERMISSION TO CARRY OUT A RESEARCH ON EFFECTIVENESS OF METHODS USED IN THE IMPLEMENTATION OF ENVIRONMENTAL LEGISLATION IN THE MUTASA DISTRICT OF ZIMBABWE**

I am a University of South Africa (UNISA) student number 3124-653-2 doing a Master of Public Administration (MPA) degree. I would like to carry out a research on the above-mentioned topic within your district.

I am therefore seeking your permission to carry out the research.

Looking forward to your favourable response at your earliest convenience.

Yours faithfully

Mukwindidza Enock (Mr)

### APPENDIX III

#### LETTER TO SEEK PERMISSION FROM THE ZIMBABWE REPUBLIC POLICE

Hartzell C.P.S  
P.B. P 7024  
Mutare  
Zimbabwe

10 April 2007

The Member-in-Charge  
Penhalonga Police Station  
P. O. Penhalonga  
Penhalonga  
Zimbabwe

Dear sir/Madam

**RE: APPLICATION TO SEEK YOUR PERMISSION TO CARRY OUT  
A RESEARCH ON EFFECTIVENESS OF METHODS USED IN  
THE IMPLEMENTATION OF ENVIRONMENTAL  
LEGISLATION IN THE MUTASA DISTRICT OF ZIMBABWE**

I am a University of South Africa (UNISA) student number 3124-653-2 doing a Master of Public Administration (MPA) degree. I would like to carry out research to assess the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district.

I am therefore seeking your permission to carry out the research.

Looking forward to your favourable response at your earliest convenience.

Yours faithfully

Mukwindidza Enock (Mr)

## APPENDIX IV

### LETTER TO SEEK PERMISSION FROM THE MINISTRY OF ENVIRONMENT AND TOURISM IN ZIMBABWE

Hartzell C.P.S  
P.B. P 7024  
Mutare  
Zimbabwe

13 April 2007

The Provincial Natural Resources Officer  
Environmental Management Agency (EMA)  
Ministry of Environment and Tourism  
Box 555  
Mutare  
Zimbabwe

Dear sir/Madam

**RE: APPLICATION TO SEEK YOUR PERMISSION TO CARRY OUT A RESEARCH ON EFFECTIVENESS OF METHODS USED IN THE IMPLEMENTATION OF ENVIRONMENTAL LEGISLATION IN THE MUTASA DISTRICT OF ZIMBABWE**

I am a University of South Africa (UNISA) student number 3124-653-2 doing a Master of Public Administration (MPA) degree. I would like to carry out research to assess the effectiveness of methods used in the implementation of environmental legislation in the Mutasa district.

I am therefore seeking your permission and recommendation to carry out the research using the questionnaire here attached.

Your comments and suggestions on the questionnaire and the general direction of the research are welcome.

Looking forward to your favourable response at your earliest convenience.

Yours faithfully

Mukwindidza Enock (Mr)

## APPENDIX V

### QUESTIONNAIRE

I am a University of South Africa (UNISA) student number 3124-653-2 doing a Master of Public Administration (MPA) degree. I would like to carry out a research to assess the effectiveness of the methods being used in the implementation of environmental legislation in the Mutasa district of Zimbabwe. Your honest and truthful responses to the following questionnaire will assist me to produce a document which will further assist all stakeholders in their endeavour to use effective methods in the implementation of environmental legislation in the Mutasa district of Zimbabwe.

### SECTION A

#### BACKGROUND INFORMATION

Fill in the following by ticking the appropriate box.

1. Sex       (a) Male               [     ]       (b) Female [     ]
2. Age       (a) Below 20 years[     ]       (b) 20-30yrs[     ]  
             (c) 31-40 years [     ]       (d) 41-50yrs[     ]  
             (e) 51 and above [     ]
3. Highest academic qualification:  
             (a) Primary education [     ]  
             (b) Secondary education [     ]  
             (c) University graduate [     ]
4. Status   (a) Gold panner                               [     ]  
             (b) Resettled farmer                               [     ]  
             (c) Zimbabwe Republic Police                               [     ]  
             (d) Ministry of Environment Tourism official[     ]  
             (e) Local authority official                               [     ]  
             (f) Other (Specify) ..... [     ]

## **SECTION B**

### **AWARENESS OF ENVIRONMENTAL LEGISLATION**

Tick in the appropriate box

5. Are you aware of any environmental legislation in Zimbabwe?  
(a) Yes [     ]     (b) No [     ]
6. Have you ever read any environmental legislation?  
(a) Yes [     ]     (b) No [     ]
7. Has any environmental legislation been explained to you?  
(a) Yes [     ]     (b) No [     ]
8. Describe people's attitude towards environmental legislation in Mutasa district  
(a) Positive [     ]     (b) Negative [     ]
9. Do you think most gold panners are aware of environmental legislation which help to control their daily activities?  
(a) Yes [     ]     (b) No [     ]     (c) Not sure [     ]
10. Do you think newly resettled farmers are aware of existing environmental legislation?  
(a) Yes [     ]     (b) No [     ]     (c) Not sure [     ]

## **SECTION C**

### **ACTIVITIES LEADING TO ENVIRONMENTAL DEGRADATION**

11. In your opinion is gold panning legal or illegal in Mutasa district?  
(a) Legal [     ]     (b) Illegal [     ]     (c) Not sure [     ]
12. Do you think gold panning destroys the environment or not?  
(a) Yes [     ]     (b) No [     ]     (c) Not sure [     ]
13. Do gold panners always fill back the area they have dug up as they search for gold?  
(a) Yes [     ]     (b) No [     ]     (c) Not always [     ]
14. Are gold panners always prosecuted?  
(a) Yes [     ]     (b) No [     ]     (c) Not always [     ]



15. Are there any methods whereby gold panning is controlled?  
(a) Yes [ ] (b) No [ ] (c) Not always [ ]

#### **SECTION D**

#### **METHODS USED TO IMPLEMENT ENVIRONMENTAL**

#### **LEGISLATION**

16. Are there any environmental awareness programmes within your area?  
(a) Yes [ ] (b) No [ ]
17. Who conducts environmental awareness programmes being carried out within your area?  
(a) None [ ] (b) The Zimbabwe Republic Police [ ]  
(c) Mutasa rural district council officials [ ]
18. Is it true or false that offenders of environmental legislation are prosecuted?  
(a) True [ ] (b) False [ ] (c) Sometimes [ ]
19. Are there any special environmental awareness programmes for gold panners?  
(a) Yes [ ] (b) No [ ] (c) Not sure [ ]
20. In your opinion do you think newly resettled farmers are aware of the importance of environmental conservation?  
(a) Yes [ ] (b) No [ ] (c) Not sure [ ]
21. Is it true or false that farmers who indiscriminately cut down trees, burn the veld and plough along river banks are often prosecuted?  
(a) True [ ] (b) False [ ] (c) Rarely [ ]
22. Are newly resettled farmers educated on sustainable farming methods?  
(a) True [ ] (b) False [ ] (c) Rarely [ ]
23. Methods used to effect environmental legislation in Mutasa district are effective.  
(a) True [ ] (b) False [ ]

24. There are various methods used to implement environmental legislation in the Mutasa district of Zimbabwe.  
(a) True [      ]      (b) False [      ]

**SECTION E**

**PERSONAL OPINION**

25. In your opinion what do you think should be done to improve the implementation methods of environmental legislation in order to ensure sustainable utilization of the natural resources.

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