
Analysis of Institutional Woodland and Water Resources Management: The Impact of Institutions and Institutional Structures for Woodland and Water Resources Management. The Case of Ward 1 Vungu Rural District.

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ABSTRACT

The study aimed to investigate the roles of local-level institutions and institutional structures in woodland and water management in Ward One (1) in Vungu Rural District. Interviews and questionnaires were employed to assess the soundness of the system. The sample size of 97 comprised the local leaders, service ministries, the community and various institutions. The general picture is that there are a multiplicity of institutions and management structures whose interaction patterns are ad-hoc and strategic, but there are no sound practices for policy planning strategies relating to woodland and water resource management. This paper attempts to provide a framework for policy and planning strategies relating to woodland and water resource management in public and private institutions in Ward 1 in Vungu Rural District. There are several institutions and structures in place for woodland and water resources management in Zimbabwe, including government agencies, NGOs, and local communities. The effectiveness of these institutions depends on the level of resources, coordination, and cooperation among stakeholders. There is also the need for effective policies and strategies for conservation and sustainable management of these critical resources. Sustainable natural resource utilization and management can be attained through the cooperation of the various stakeholders. The study recommend an increase in funding and resources for enforcement agencies to effectively implement and enforce laws and regulations governing woodland and water resources management.

Keywords: Environment, Institutions, Institutional structures, woodlands, water resources, management.

INTRODUCTION

Zimbabwe has been facing deforestation and degradation of its woodlands due to various factors such as illegal logging, land conversion for agriculture and urbanization. In recent years, the government has been implementing policies and programs to address this issue, including the implementation of community-based natural resources management and the promotion of agroforestry. To conserve and protect Zimbabwe's remaining woodlands, the government has established several protected areas, including national parks and game reserves, (Mushonga, 2023). The government is also working to enhance the capacity of local communities to manage and protect their forests through community-based natural resource management programs. In addition, the government is promoting the use of wood fuel-efficient stoves and the adoption of agroforestry practices to reduce the pressure on forests for firewood and agriculture.

Ward 1 is situated in the Somabula area of Vungu Rural District in the Midlands Province of Zimbabwe. The Ward is in natural region IV characterized by annual rainfall patterns of + 600 millilitres and sparse to

medium-density vegetation. The dominating species are *Brachystegia Spiciformis* (msasa) and *Julbernardia Globiflora* (mitondo). The Ward has a population of + 3500 people who rely on the woodlands and water resources in the area. There is generally a rampant and indiscriminate cutting down of trees and cultivation of stream banks and arable lands without mechanical conservation works. The study sought to investigate the various institutions and structures governing access and use of the resources and pay attention to the relationships that exist between the formal and informal institutional structures.

Ward 1's formal and informal institutions and institutional structures play a pivotal role in the management and utilization of woodland and water resources. In day-to-day activities, substantial quantities of woodland are indiscriminately cut causing environmental degradation. There is a need to find ways of balancing the activities and developments in formal and informal institutions with minimal environmental damage. One of the principles of the Rio Declaration puts human beings at the centre of concerns for sustainable development. The theme of sustainable natural resources management has been on the international agenda since the first global environmental conference in 1992, (Geller and Jefford, 2018). Since then, the predominant strategies of privatization of common pool resources, enforcement of state regulations and technical solutions to environmental management problems have not prevented further depletion of local and national common pool resources, (Chenje et al 2008). To ameliorate this state of the environment, there has been a shift in seeking technical solutions to natural resources management problems to focus on social and institutional issues in resource management, and this has been spearheaded through donor-funded community-based natural resources management initiatives. In the decentralization of natural resources management discourse, there is a new and renewed debate on the role of institutions and institutional structures in common resource management in the context of community-based natural resources management.

An institutional analysis approach in community-based natural resources management generates some understanding of what different actors do and why (Mandondo, 2000). This is because decentralized natural resources management has resulted in many institutions and structures getting involved. Those established by non-governmental organizations (NGOs) and those from Government departments and agencies, together with the indigenous or traditional ones already in place. Tsapora (2020) notes this institutional engineering approach results in multiple institutions overlapping and conflicting roles and jurisdictions in the context of natural resources management and traditional institutions being regarded as backward and overlooked, yet they still have a strong influence within the rural communities. It was seen therefore important to conduct this study to assess the implications of these conflicts and unclear roles and jurisdictions on the conservation and management of woodland and water resources in Ward 1.

Background to Institutions and Institutional Woodland and Water Resource Management

Natural resources are not man-made, develop or grow naturally but need human nurturing and management for their continued conservation (Chenje et al 2008). CAMPFIRE report (2003) defined woodlands as areas characterized by heavy growth of trees, plants and grass. The main water sources in rural communities include lakes, dams, rivers, springs, boreholes and wells. The study seeks to establish the woodland and water resources in Ward 1 and how they are managed. The management of woodlands and water resources at the local level faces challenges. Generally, the multiplicity of institutions and management structures with unclear mandates and jurisdictions is a challenge to the proper management of resources. According to Ramutsindela, Matose, and Mushonga, (2022) institutions are rules that govern the behaviour of individuals or people and organizations in public, private and civil sectors. Matondi (2001) defines institutional structures as the tangible form of institutions that articulate the rules controlling specific activities. The study looked at both the formal and informal institutions for natural resources management in Ward 1. The institutional structures for woodlands and water access and use, their roles and interaction patterns were also looked at.

The government of Zimbabwe is promoting sustainable forest management practices to ensure the long-term conservation and protection of its woodlands, (Mushonga, 2022). This includes the implementation of forest certification schemes, such as the Forest Stewardship Council (FSC), which promotes responsible forest

management practices and helps to reduce the impacts of deforestation. The government is also working to increase the involvement of local communities in forest management and to promote the development of alternative livelihoods that are less dependent on forests.

Zimbabwe is facing several water-related challenges, including increasing water scarcity, poor water quality, and the need to improve access to water and sanitation services. Shonhe (2019) notes that to address these challenges, the government is working to improve water governance through the development of policies and strategies that promote integrated water resources management. In addition, the government is investing in the rehabilitation and expansion of water supply and sanitation systems, as well as in the development of small-scale water projects, to improve access to water for communities and to reduce the impacts of water scarcity, (Tsapora, 2020). It is important to note that the implementation of effective policies and strategies for woodland and water resources management will require the active engagement of all stakeholders, including government, communities, NGOs, and the private sector. Additionally, adequate financing, capacity building, and technology transfer will be critical to the success of these efforts.

Community-based Natural Resources Management (CBNRM) is being practised in Ward 1. The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) Report (2003) defines CBNRM as a development strategy that focuses on the need to promote the participation and empowerment of rural communities. A salient case of CBNRM initiatives on the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). Murombo (2012) defines it as a programme of policies that seek to give those who live in rural areas greater involvement in managing the natural resources in their areas and greater access to benefits derived from these resources. According to the CAMPFIRE Report (2003), communities are now more vigilant in controlling poaching and community members have been proactive in preserving wildlife habitat and have banned cattle grazing outside community boundaries. CAMPFIRE which is being implemented in Ward 1 is a big boost to the conservation of woodlands and water resources. The principal legislative provisions governing woodlands and water access and use are the Constitution of Zimbabwe Amendment 20 Act of 2013, Rural District Councils Act (1996), Forests Act (1996), Environmental Management Act (2003), Communal Lands Act (1982), Communal Areas Forests Produce Act (1987), the Water Act (1998) and Parks and Wildlife Act Chapter 20:14. Legislation on natural resources management emanates from several sources. In Zimbabwe, there are many natural resources laws administered by several different Ministries causing some of them to conflict. These laws according to Chenje et al (2008) were developed to meet specific needs in the history of the country hence some are outdated given the dynamic socio-economic and political setting of the country. It was however important to review laws in this study of institutions as these represented some of the formal institutions that govern natural resources use at the national level.

Constitution of Zimbabwe Amendment 20 Act of 2013

An environmental rights clause reflecting comparative approaches to environmental conservation is ingrained in Zimbabwe's 2013 Constitution. A brief examination of the environmental rights clause reveals that the vocabulary and structure are derived from several environmental conservation best practices and principles that have trickled down from the framework of international environmental law. The environmental rights provision for Zimbabwe reflects the goals the state has for environmental control. Additionally, it creates a solid framework for environmental law, which aims to create an integrated environmental governance framework and define overarching and generic principles in terms of which sectoral-specific legislation is embedded.

The Rural District Councils Act of 1996.

The ACT vests district Councils with powers to control land use and allocation in rural areas. Councils through this ACT are thus responsible for formulating and guiding development activities and controlling resource management activities in their respective Districts. District Councils are also given powers to make by-laws that can override any customary claim on land.

The Communal Land Act of 1982.

This act promulgated communal areas as state land, with ownership vested in the President of Zimbabwe. Individual households privately manage their arable land with rights to subdivide or inherit the land, grazing areas, woodlands and other resources communally accessed. The Act gave RDCs power to administer the land on behalf of the government. However, the RDCs are required to take into consideration local customs and rights in dislodging duties regarding land use and distribution.

The Forest Act Chapter 19:05.

The ACT provided for the establishment of the Forestry Commission (FC). The FC's mandate is primarily directed towards the management of trees on commercial plantations, either private or state-owned. The ACT empowers the state to regulate and restrict indigenous timber extraction on all lands.

The Communal Land Forest Produce Act.

The ACT restricts the use of forest timber by people not resident in the communal areas and prevents the removal of any tree product within 100 metres on either side of a stream or water courses. It also stipulates that it is an offence to use forest products from protected forest areas. The ACT empowers District Councils to collect all revenue derived from the commercial utilization of forest resources in communal areas.

The Water Act of 1998

The ACT allows the abstraction of water with permits. It allows for the reasonable use of water bodies such as streams, and rivers for basic domestic purposes. The pollution of water bodies is also dealt with by the ACT. Any person who pollutes water bodies shall be guilty of an offence.

The Parks and Wildlife Act of 2000

The ACT makes provision for the proclamation of national parks. It is essential to note that on freehold land, the title holder owns and is responsible for wildlife. This provision has enabled the development of private game ranching, which developed rapidly on large-scale commercial farms before the land reform programme. The legal responsibility of the Parks and Wildlife Board and the Department of National Parks and Wildlife Management are limited to state land except concerning species that are protected and endangered. This act protects all forms of animal life in Zimbabwe from harm or extinction; it also protects their natural habitats which ensures they survive for many generations to come. Its penalties against poachers of rare and endangered species of animal are quite prohibitive.

The Environmental Management Act Chapter 20:27 of 2003.

This ACT was enacted to among other things, provide for the sustainable management of natural resources, protection of the environment and to prevent pollution and environmental degradation. The ACT also provides for the setting up of various institutions for the management of the environment. These include the EMA and natural resources management board. The EMA has powers which include monitoring the control, management and utilization of ecological fragile areas, making model by-laws, to establishing measures for the management of the environment within the jurisdiction of local authorities. The ACT also provides for environmental impact assessment, the protection of wetlands, banks or the course of any river or stream.

Environmental Management Institutions

The management of Zimbabwe's woodlands is governed by several laws and policies, including the Forest Act, the National Parks and Wildlife Act, and the Community-Based Natural Resource Management Policy. These laws and policies establish the responsibilities and obligations of different actors, including the government, local communities, and the private sector, in the conservation and management of forests,

(ZELA, 2021). The implementation of these laws and policies is carried out by various institutions, including the Ministry of Environment, Climate, Tourism, and Hospitality Industry, ZIMPARKS, and NGOs.

The management of Zimbabwe's water resources is governed by the Water Act and the National Water Policy, which establish the framework for the governance of water resources and the responsibilities of different actors, including the government, local communities, and the private sector. ZELA (2021) notes the implementation of these laws and policies is carried out by various institutions, including the Ministry of Lands, Agriculture, Water, Climate, and Rural Resettlement, ZINWA, and NGOs.

The institutional framework for woodland and water resources management in Zimbabwe is designed to ensure the sustainable and equitable use of these resources and to promote the involvement of all stakeholders in their management. However, the effectiveness of this framework will depend on the availability of resources, the level of coordination and cooperation among stakeholders, and the implementation of effective policies and strategies for conservation and sustainable management.

Weaknesses of the Institutional and Legislative Framework.

The effectiveness of the legislation for woodland and water resources management in Zimbabwe can be considered as moderate. While the legal framework for the management of these resources provides a solid foundation for the conservation and sustainable use of these resources, the implementation of these laws and policies has faced some challenges. These challenges include a lack of enforcement. The enforcement of laws and regulations governing woodland and water resources management can be weak, leading to non-compliance and illegal activities, such as illegal logging and over-extraction of water, (Kopnina, et al, 2018). Another challenge is limited resources. The government and other institutions responsible for the management of woodland and water resources often have limited resources, making it difficult to effectively implement and enforce laws and policies. The multiplicity of the pieces of legislation is the first clear weakness of the natural resources management area.

Chenje et al (2008) made an observation and suggested that these pieces of legislation focus on regulation and policing and therefore do not protect local proprietorship of resources. Recent developments in the water sector have fostered community participation in the water sector but in the case of woodlands, several challenges still emerge, some being to the identification of resources, boundaries, establishing conflict management and resolution mechanisms all this being due to weakness in the legislation framework. Duffy (2014) highlights that there are also conflicting interests among different stakeholders, such as government agencies, communities, and the private sector, which can impact the effectiveness of the legal framework. Buscher and Fletcher (2019) cite the involvement of local communities and other stakeholders in the management of woodland and water resources can be limited, making it difficult to ensure that the needs and perspectives of these groups are taken into account in the development and implementation of laws and policies.

The legal framework for woodland and water resources management in Zimbabwe provides a foundation for the conservation and sustainable use of these resources, but the effectiveness of this framework is limited by various challenges, (Zinhiva, and Chitarika, 2017). Addressing these challenges will require the strengthening of enforcement, the provision of adequate resources, the promotion of stakeholder engagement, and the resolution of conflicts of interest.

METHODOLOGY

A descriptive survey was used as the major research design and provided a blueprint upon which the objectives of the study were fulfilled. The qualitative nature of the study involved descriptions of situations and events leading to the sustainable management of woodlands and water resources in Ward 1. The quantitative study allowed numeric analysis of data by analysing percentage frequencies that were associated with the number of respondents expressing a common view. The rationale for adopting this

approach was that methodologies do not exist in isolation, and hence be mixed and matched to obtain a balance between the varying techniques.

Convenient sampling was used conveniently drawing respondents from populations that were likely to provide the required responsive data and also by their accessibility. A sample of 100 respondents was conveniently drawn from Ward 1 farmers, local leaders, and environmental implementing agencies: the Environmental Management Agency, Department of Lands, AREX, Local Government, Parks and Wildlife and Forestry. The collection of data was achieved through a combination of interview schedules and questionnaires as research instruments. A combination of open-ended and closed questions was used in the questionnaire design. The interviews were based on a set of questions that were completed through face-to-face contact with the respondents and the telephone.

FINDINGS

The institutional framework for woodland and water management indicates that there are quite several organizations, groups and individuals involved in natural resources management for Ward 1. The active structures found in the ward include village heads, headmen, chiefs, VIDCO and WARDCO, Vungu RDC, AREX, EMA, and NGOs. 70% of the respondents stressed that traditional authorities were the most active institutional structures. The remaining 30 % were noted to be departments like NGOs, AREX and EMA. Although the wildlife is diminishing at a tremendous rate, the CAMPFIRE programme has strengthened the local management situation. However, there remains a low level of awareness of environmental management in the local institutions. This has resulted in unsound practices of natural resources management. There is a low awareness level concerning existing legislation on environmental management practices.

90% of the respondents interviewed and those who responded through questionnaires had an idea of what woodland and water resources management was all about. The respondents realized some benefits from wildlife, especially through CAMPFIRE, trees, grass and water also provided them with livelihood. The 3 council officials interviewed described the CBNRM as a revenue source and facilitator of economic growth. Although the law is said to be punitive, the respondents indicated that enforcement was not so transparent, and hence the community continued to mismanage the environment and also infringed on other provisions of the Acts. 60% of the respondents indicated that the woodland resources are now fewer compared to the original state before the 1970s. To compound to this problem, law enforcement agencies are there on the ground, with limited resources to carry out any enforcement or policing of the various statutes.

Respondents drawn from service ministries and communities cited a lack of political will by the local leadership as compounding to the mentioned problems, especially in areas such as the enforcement of conservation works. Some political representatives were reluctant to enforce regulations for fear of destroying their political base. A respondent noted that

“Gold panning is an environmentally damaging activity and yet it was allowed to continue to operate because of it being supported by political elites.”

Furthermore, local authorities were empowered to control the conservation of natural resources using their by-laws, but these regulations were more than twenty years old and did not reflect the scope of environmental problems in rural centres.

The researchers established that the management of Zimbabwe's woodlands is the responsibility of the Ministry of Environment, Climate, Tourism, and Hospitality Industry, which oversees the implementation of policies and programs aimed at conserving and protecting forests. The Ministry representative noted that;

“we also works with other government agencies, as well as NGOs and local communities, to implement community-based natural resource management programs and to promote sustainable forest management

practices. The Zimbabwe Parks and Wildlife Management Authority (Zimparks) is also responsible for the management of protected areas, such as national parks and game reserves”.

For water resources, the management of Zimbabwe's water resources is the responsibility of the Ministry of Lands, Agriculture, Water, Climate, and Rural Resettlement, which oversees the implementation of policies and programs aimed at improving water management and access. The Ministry works with other government agencies, as well as NGOs and the private sector, to implement water projects and to promote integrated water resources management. In addition, the Zimbabwe National Water Authority (ZINWA) is responsible for the management of the country's water resources, including the development and implementation of water policies and regulations.

Government Departments still experience overlaps in the enforcement of environmental law, Mines and Mineral Act, the Forestry Act and the Parks and Wildlife Act are still being enforced by the line Departments, and yet the provisions of EMA as enforced by the Environmental Management Agency also covered issues as contained in three Acts, thereby causing overlaps a good example is on veld fires.

CONCLUSION

In conclusion, there are several institutions and structures in place for woodland and water resources management in Zimbabwe, including government agencies, NGOs, and local communities. The effectiveness of these institutions will depend on the level of resources, coordination, and cooperation among stakeholders, as well as the implementation of effective policies and strategies for conservation and sustainable management of these critical resources. Sustainable natural resource utilization and management can be attained through the cooperation of the various stakeholders. The failure might be a result of interference in the enforcement of environmental law, lack of effective stakeholders' participation, lack of information, lack of transparency of the law, lack of resources, political will, low fines and poor integration of statutes among other issues. The study also revealed that there was an increased level of awareness of the provisions of the various pieces of Environmental Legislation particularly with good departments and local authority, with low levels being recorded in samples drawn from the local leadership, farming and communal area.

RECOMMENDATIONS

The recommendations that follow are based on the major abstractions drawn from this study. These should serve as antecedents for adoption towards a successful environmental management approach.

- **Strengthen enforcement:** Increase funding and resources for enforcement agencies to effectively implement and enforce laws and regulations governing woodland and water resources management. This could include hiring additional staff, providing training and equipment, and improving coordination among enforcement agencies.
- **Promote stakeholder engagement:** Increase the involvement of local communities and other stakeholders in the management of woodland and water resources. This could include setting up community-based natural resource management programs, involving stakeholders in decision-making processes, and promoting the participation of these groups in monitoring and reporting activities.
- **Resolve conflicts of interest:** Develop mechanisms to resolve conflicts of interest among different stakeholders, such as government agencies, communities, and the private sector. This could include promoting transparency and accountability, establishing dispute-resolution mechanisms, and involving stakeholders in the development and implementation of laws and policies.
- **Increase resources:** Increase funding and resources for the institutions responsible for the management of woodland and water resources, including the Ministry of Environment, Climate, Tourism, and Hospitality Industry, Zimparks, ZINWA, and NGOs. This could include increasing the budget for these institutions, providing technical assistance, and improving the capacity of these institutions to effectively implement their mandates.

- Awareness raising: Raise awareness among the public, government officials, and other stakeholders about the importance of woodland and water resources and the need to conserve and manage these resources sustainably. This could include launching public awareness campaigns, providing training and education programs, and encouraging the media to report on these issues.
- Environmental education for stakeholders should foster the development of knowledge on education of the law. Efforts should centre on the local leaders and community. The education process should not be left to chance but coordinated as a key result area through appointed environmental education officers operating at the Ward and District level.
- Political leaders must realize that they belong to the community of stakeholders in environmental management. The change in attitude by politicians implies that they should take environmental issues seriously, and not promote infringements of environmental law to gain political mileage. An attitude change towards good environmentalism will lead to acceptance of the law, thus, politicians will encourage their constituencies to take environmental concerns as socially and morally correct constructs.
- The Vungu RDC must ensure the regular training of all stakeholders to avoid misconceptions and compliance of the involved partners. In this respect, training can be in the form of workshops, seminars and regular training meetings.
- There is a need to upgrade the existing security system by increasing the number of guards to curb the poaching of wildlife and firewood.

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