# ROLE OF PARTICIPATORY DEVELOPMENT COMMUNICATION IN NATURAL RESOURCE MANAGEMENT: A CASE OF NAIVASHA WETLAND AREA

**BY**

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTER OF ARTS DEGREE IN COMMUNICATION STUDIES, SCHOOL OF JOURNALISM AND MASS COMMUNICATION, UNIVERSITY OF NAIROBI**

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## DECLARATION

I declare that this research project is my original work and has never been submitted for examination in any other learning institution for examination purposes.

Signature:  **Date**: 14/11/2023

**MICHAEL K. MURATHA.**

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## SUPERVISOR'S DECLARATION

I affirm that work done on this project was carried out by the named candidate under my supervision.

Signature:  Date: 14.11.2023

**DR. SAMUEL NGIGI**

## DEDICATION

This research project is devoted to my beloved parents Mr. James Muratha and Mrs. Rosalind Muratha whom have given me their love, financial support, and encouragement.

## ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my supervisor, Dr. Samuel Wainaina for his valuable guidance and advice in writing this project. I wish to also acknowledge my parents for their continued support. Lastly, I acknowledge the work done by authors of previous studies, which have given me information and further insights.

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## ABSTRACT

Participatory development is key in ensuring that there is sustainable and efficient improvements from the physical aspect, especially where there is involvement of public facilities like sanitation and water amenities. The research aimed at investigating the role played by participatory development communication with regards to natural resource management: a case of Naivasha Wetland Area. Tied to this objective were the specific ones which included; finding the influence of participatory project planning on natural resource management in Naivasha Wetland Area; examining the impact tied to participatory project implementation regarding natural resource management in Naivasha Wetland Area and assessment of participatory monitoring and evaluation's influence on natural resource management in Naivasha Wetland Area. A research design of the descriptive cross-sectional perspective and Habermas' theory were utilized. The study's target population was 20 conservationists/ environmentalist, and 2000 community members. A stratified sampling technique was used to select 400 respondents. An interview guide coupled with questionnaires helped in obtaining primary data. Quantitative data acquired in the field was assessed for completeness, consistency, and quality. The data was entered and summarized for analysis. The researcher next analyzed this data before presenting results in tables, frequencies and percentages forms. Furthermore, descriptive characteristics like standard deviation and mean were utilized in results presentation. The arithmetic mean, standard deviation, frequencies, and percentages were calculated as part of the descriptive analysis approach. There was utilization of Pearson's correlation coefficient in derivation of inferences. Microsoft Excel and Statistical Package for Social Science (SPSS) version 24 were utilized. Information gathered from the interview guide's open-ended questions was qualitative. The study found that majority of respondents indicated that assessment of participatory requirements was a significant tool in reducing natural resources' destruction. The study also found that a major proportion of respondents were in agreement with statements on participatory project planning. The study further found that there was a great extent to which respondents responded in agreement with statements that were based on natural resource management. The final finding was that respondents agreed to a big degree with statements on participatory monitoring and evaluation on natural resource management. A conclusion was made that participatory needs assessment, monitoring and evaluation significantly influence management of natural resources. Furthermore, local communities need to get engaged in implementation of natural resource management projects. Natural resource management needs to build strong relationships with local communities, develop clear project goals and objectives, guarantee local communities' priorities when developing project goals and build capacity among local communities to enable them to assume active responsibilities management of natural resources and project. Finally, it is critical that a clear monitoring and evaluation plan be established to enable projects to be effectively tracked and evaluated.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background Information

There is a significant role played by development communication with regards to information dissemination and distribution at the global level. Apart from informing people, communication also helps in influencing the recipients' behavior. It is important for efficient development communication to help in motivating people to engage themselves in planned events. Servaes (2018) asserts that development and communication emerge from both organizations and communities' grassroots, which is an aspect that points out their participatory nature. It is worth noting that participatory approach's recognition took place in 1980s and 1990s. It has pruned out and emerged to be a rich foundation for theories and models that relate to communication (Bessette, 2020).

The way through which participatory development is carried pout helps in determined participatory development's ability to achieve its targets (Hinthorne and Schneider, 2012). For efficient participation to be carried out, there has to be the cognizant factor in various dimensions including the participation mode, participants' engagement and the relationship manner with both local people and institutions. Participation therefore means that power in the development process always shifts from those who say the nature of the problem and how to solve it (government, external donors) to those directly affected by the problem (Chagutah, 2019). Participatory development involves participation of local communities in sustainable development to enable them to identify their own needs and aspirations.

Bessette (2016) asserts that for natural resource management to have best practices, it must align to scenarios whereby the stakeholders get a joint involvement in identification of development parameters. They must also jointly participate in the process of making decisions. Therefore, the process lies beyond community participation and consultation boundaries in any of the actions or activities that are outlined by a respective researcher. There are cases where the process of development presents an empowerment case whereby participants get the chance of transforming their reality views and are able to present effective actions. Participatory development communication offers support to the course (Ali et. al. 2017). Most local communities get empowered in addressing and discussing problems and practices related to management of natural resources. They are also able have stakeholder engagement in the establishment of better policy environments.

The world is encompassed with a high level of environmental concerns which is an aspect that has forced lots of nations to converge their efforts and deliberate means on how to best address the problems that continue to pose a threat to the world (Naidoo, 2010). The environmental concerns hit everyone regardless of geographical locations and they are more real compared to previous centuries. These concerns are numerous and are on a different scale and have caused organizations and governments to act instead of being vocal on the issue to help save the looming environmental catastrophe. One of the major ways of addressing these concerns is by governments providing concise and concrete information to people for them to make informed decisions that aim at mitigating or eradicating some of the environmental predicaments (Reeves, 2015). The country continues to face concerns from environmental management and conservation nature, which requires the development of sustainable communication practices to present the needed societal change with regards to the situation.

The major environmental concerns and problems that continues to face Kenya include land degradation (vegetation cover, water, land), biodiversity loss in critical ecosystems including marine life, forests and wetlands, and emerging socioeconomic indicators related to health (TB, malaria, HIV/AIDs amongst other prevalent diseases) and limited access to education and water (Izac and Sanchez, 2016). Increased pressure on land and other zones of potential productivity has forced people to start using wetlands, riverbanks and sloping lands without the observation of the set measures for environmental conservation. The study investigated the role played by participatory development communication with regards to management of natural resources. The case of Naivasha Wetland Areas was considered.

### 1.2 Problem Statement

Participatory development is key in ensuring that there is sustainable and efficient improvements from the physical aspect, especially where there is involvement of public facilities like sanitation and water amenities. Projects decided, implemented and managed by communities are more sustainable than projects provided by donors without community involvement (Akpomuvie, 2010). Chikati (2019) indicated that without community support, projects may not function or may not be accepted after completion. One key aspect worth noting is that participatory development has had the World Bank's support for over 10 nyears because it leads to successful, efficient and sustainable projects in the dimensions of projects choice, planning, implementation and evaluation (World Bank, 2004).

It is important for communities to be involved in and feel part of affairs that affect them (Igbara, 2013). Most developing countries are characterized by failing projects that do not meet and sustain their aims because governments and expatriates do not effectively manage them. The scenario is typical to Naivasha Area Wetland management (Bessette, 2021). Nakuru County government in combinatai0n with other donors have made major investments in the protection of the wetland so as to provide clean and safe water to the community that depends on it. They also aim at upscaling its water yield and improving water access. However, all these efforts have either faced rejection, abandonment or vandalization. The occurrence necessitated the need to assess the participatory development communication role in the management of the wetland.

### 1.3 Study Purpose

To investigate the role of participatory development communication regarding natural resource management: a case of Naivasha Wetland Area.

### 1.4 Objectives

The objectives of this study were;

i. To determine influence of participatory needs assessment on natural resource management in Naivasha Wetland Area.
ii. To find influence of participatory project planning on natural resource management in Naivasha Wetland Area.
iii. To examine the impact of participatory project implementation on natural resource management in Naivasha Wetland Area.
iv. To assess the impact of participatory monitoring and evaluation on natural resource management in Naivasha Wetland Area.

### 1.5 Research questions

This study was based on the following research questions:

i. What impact does participatory needs assessment have on natural resource management in Naivasha Wetland Area?
ii. Does participatory project planning influence natural resource management in Naivasha Wetland Area?
iii. Does participatory project implementation influence natural resource management in Naivasha Wetland Area?
iv. Does participatory monitoring and evaluation impact natural resource management in Naivasha Wetland Area?

## 1.6 Significance of the Study

The research makes a contribution to Environmental Communication, which is an aspect that is peculiarly not significant in Kenya. Furthermore, future studies will benefit from referencing this study, which will be in the repository of both NEMA, the university and other environmental related organizations. The public will benefit using the information contained in the study in making and addressing environmental concerns. The recommendation of active public participation will ensure the development of a healthy and favorable environment, as depicted un the Bil of Rights of Kenya's constitution.

## 1.7 Study Delimitation

The research was delimited to influence of communication strategies on environmental management: a case of Naivasha Wetland Area. Specifically, the study focused on the influence of participatory evaluation and monitoring, project planning and implementation and needs assessment of management of the Naivasha Wetland Area Natural Resource. The study adopted a cross-sectional research design. Primary data was used for collecting primary data before analysis in both the qualitative and quantitative dimension.

## 1.8 Study Limitations

The study encountered time limitation. The period through which the study was carried out was extremely short and the study failed to cover all the concepts required. This was mitigated by the researcher working within the stipulated time. Regarding the geographical scope the study was limited due to the involvement of the travelling within the targeted area, and this incurred extra cost which was limited by the few resources available. To mitigate this the researcher worked with the available resources to cover the targeted population. The researcher came up and adopted a research budget and time plan.

## 1.9 Basic Assumptions of the study

There was an assumption that respondents provided honest feedback to the researcher to ensure quality data aspects were captured. Another assumption was that respondents understood the influence of communication strategies on environmental management.

### 1.10 Definition of Terms

**Community:** A group from the social perspective having any size and whose members live in a particular place, and often have a common culture.

**Community participation:** The scenario of individuals collaborating and participating in identifying and making decisions on issues affecting them.

**Participatory Development:** Refers to the process by which local communities are engage to plan, develop, implement and evaluate both events and policies affecting them.

**Project Sustainability:** The aspect that maintains the results, aims and products of any given project in the preceding times after the withdrawal of donor funding.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1. Introduction

This chapter gives a review of relevant literature regarding the impact that communication strategies have on environmental management. There is an illustration of the study's conceptual framework.

## 2.2. Participatory Development Communication

The fulfillment of participatory development promises depends on the process through which it is actualized. For efficient participation to be carried out, there has to be the cognizant factor in various dimensions including the participation mode, participants' engagement and the relationship manner with both local people and institutions (Igbara, 2013). Participation therefore changes the development process power from people that believe the nature of the problem depends on its solution (government, external donors) to those directly affected by the problem. Participatory development involves changing traditional development methods to increase the capacity of local communities and people to identify and meet their desires and expectations. (Chikati, 2012).

Participatory communication in natural resource management does not only encompass the methods that force people to change their practices, attitudes and knowledge. People need to exhibit the voluntary aspect when engaging in actions for them to have an in-depth understanding of the cause of their activities (Cadiz, 2014). There can only be long-lasting changes if only people get a voluntary understanding of their actions and the reasons why they engage in them. For there to be a change from the social perspective, people need to agree to work together to initiate and implement communal changes. Management of natural resources must observe interdisciplinary and multidisciplinary approaches and need to be based on community participation. Therefore, primary concerns arising at the community level can get effective management through community participation, which is a basic requirement in resource management.

Bessette (2016) asserts that ownership and true appropriation of management of natural resources by local communities contributes significantly the process effectiveness. It is important to recognize the ability of engaging communities through participation, supporting the process of learning and developing partnerships with respective stakeholders as they form

the technical aspect of resource management. The involvement of community participation in development agenda encompasses the inclusion researchers, extension workers and other people affected by the given project. The process calls for learning values of participatory development communication values, modern and local knowledge, and communication skills of natural resource management.

### 2.3. Participatory Needs Assessment on Natural Resource Management

A needs assessment refers to the method of ensuring the determination and seeking address of needs and any gaps that exist between desired and current conditions. A measure of the stated gap needs to be appropriate in the identification of any need. For example, such a need may involve the want of improving present performance of correcting a shortfall. Needs assessment is critical in the identification of solutions and clarification of any existing problems (Fulgham and Shaughessey, 2018). Needs assessment forms a major part in the process of planning a project and is frequently used to improve communities, organizations, projects and individuals. According To Lee and Reeves (2019), clarification of societal problems and idenitifcation of solutions and interventions depend on need assessment. Furthermore, by clearly defining a problem, limited resources have the chance of getting channeled to the development and implementation of effective solutions. Needs assessment is only effective if it is objective and provides evidence that can be used to determine which methods are most efficient in achieving the desired results from the project design.

Before the commencement of any plan for a development project, critical significance lies with carrying out a needs assessment (Lee and Reeves, 2019). Gilbert (2018) added that goals must be linked to the needs and expectations of society to ensure project success and sustainability of the project. However, this requires good communication with all project participants. Needs assessment's responsibility is to determine society's assets and identify the problems which may be encountered in society (Sharma et al., 2019). Therefore, assessment becomes important in early phases of a project. It focuses on identification of potential hinderances to creating social impact and establishing solutions to any challenge.

An assessment of community needs is vital for all planning interventions on behalf of communities facing social problems (Rossi and Lipsey, 2014). They added that in order to identify successful interventions in for problem-solving, it is important to carry out a community needs assessment with an aim of helping practitioners establish the scope and

nature of a problem on which interventions can focus. They also added that community needs assessment reveals the community affiliates that benefit most from the intervention plan and who will not and enable the plan to demonstrate that resources should be interventions-based during allocation instead of getting wasted.

Assessment of community needs to consider the inclusion of communities in all planning phases of a project besides identifying the people likely to be affected (Rossi and Lipsey, 2014).

This is in line with research by Maldavuand (2013) in Nigeria, which suggests that the government should not assume that it knows what is good for the poor than this cluster of people. Maduagwu (2015) added that the initiation of projects should be done because people need them and not because the contractors want to have them done. Citizens need to be clear about their needs and priorities. Besides the assessment identifying any change desire, it also helps in clarifying present challenges.

### 2.4. Participatory Project Planning on Natural Resource Management

Participatory planning refers to the first phase of defining a common development agenda by both external entities and the local community (Olthelen, 2019). The expectation from such a phase is an evolution of all concerned parties towards a sustainable process of planning at a local scale. Its function is creation of a learning platform instead of going directly to solving a problem. It helps in identifying needs, providing empowerment to less advantaged people, seeking consensus and coupling knowledge in design projects. The process of learning is considered to be two-way between local people and individuals on the projevt team. It is also responsible for seeking commitment from politicians and accountability and support from local governance.

During the planning phase, community participation involves developing processes that allow public officials to engage with stakeholders and developing broad engagement processes (Laura (2015). Stakeholder engagement is critical because these groups of individuals are connected to the communities and any programs and policies have a direct impact on them. Therefore, citizens posses the rights of expressing what they feel about given issues. For effective planning, a plan should undergo formulation and made to operate with all concerned parties including trade unions, field organizations, private and governmental organizations

and the local community. No objectives can be achieved without the involvement of the stakeholders.

The involvement of community individuals in projects is an aspect that should not be avoided (Hamdi and Geothert, 2017). There are four different levels of communication identified by Hamdi and Geothert (2017). Passive participation is one of them and it involves ensuring stakehoklders understand what is being planned. There is little or no feedback from people. The evaluation of their participation is done through methods such as individual counting and participation in discussions (sometimes called the knowledgeable hand of participation). Interviewing is a method of obtaining answers from participants to questions from external experts. Ideas can even be expressed away from the meetings.

Ultimately, this consultation process leaves all authority of making decisions to external experts that have the benefit of either agreeing or disagreeing with the views of stakeholders. Collaboration forms the second level where critical stakeholders are grouped for them to engage in analysis and discussion of the project's goals. Their involvement doesn't always lead to major shifts on aspects that need to be done as they it is already determined (Wanyera, 2016). String participation refers to where the stakeholders possess the willingness to start the process and get engaged in reviewing the project. It helped develop a shared decision on things and methods that need to be done. Taking ownership and managing rest processes with stakeholders.

According to Ray (2015), participatory planning is considered a new channel in planning developments because of its general consideration of principles and its involvement of local people in aspects that touch their lives. The approach is being used in development panning and its participatory approach continues to be used globally.

### 2.5. Participatory Project Implementation on Natural Resource Management

Participatory Project Implementation forms a critical phase where activities that have been properly planned get to the action stage. A customized framework is adopted in conjunction with participation from the community (Muriungi, 2015). The customized framework helps in outlining the aspirations and expectations of all the beneficiaries. The implementation of any project can only start after the process undergoes structuring and customization. Participatory approach entails people owning and being part of a project (Biwott, 2020). The process of achieving project success entails the involvement od various groups of people who

understand and share the common goals of the project, interact socially and contribute towards the achievement of the project objectives.

Participation development involves sharing responsibilities and tasks throughout all phases of a project (Chambers, 2017). However, the strategy can only be actualized if it is institutionalized. Memorandum of Understanding (MOU) is a key strategy for ensuring that people get involved in projects for them to become sustainable in communities. People help in the idenitifcation of projects where they have interest in. Every government aims towards improving the life quality of people ion communities (Ohwahwa, 2019). However, the objectives of different projects are never achieved because of the lack of consideration of the preferences and needs of people in the community.

Alm the phases of the project right from decision making to benefits evaluation must have the involvement of people. Authenticity in MPOU engagements and participation of people is critical in ensuring self-reliance of intended beneficiaries of a given project resulting in its self-sustainability (Ohwahwa, 2019). MOUs are important in projects' execution and it is a welcomed idea in any development that foresees the building of a nation. The MOU paradigm can be developed to a higher level through monitoring mechanism to help in ensuring objectives' realization. Committee implementation and MOU establishment had been important in sustainable project development in various parts of Nigeria, Therefore, committees need to be implemented to help realize MOU adherence in a project's life.

### 2.6. Participatory Monitoring and Evaluation on Natural Resource Management

Monitoring and evaluation on the participatory (PME) dimension form a major history component since its emergence over 2 decades ago (Marisil and Joflin (2015). PME involves different traditions of research like participatory action research (PAR) (Fals-Broda, 1985; Paolo, 1972), Farming Participatory Research (FPR) of Martin and Farrington (1988) and Amanor (1990), arming Systems Research (FSR), Participatory Rural Appraisal (PRA) of Robert Chmabers (1997) and Rapid Rural Appraisal (RRA). Monitoring and evaluation is critical in supporting firms to get valuable insights from its present and past activities, which form a reference for future engagements.

Lack of effective PME makes it impossible to know whether a given action is progressing in the right direction or whether it needs more effort to undergo improvement based on previous realizations (UNDP, 2012). Evaluation gives critical insights into the results of future actions.

The process uses existing fata in assessing a program's status at a given point and can help in either its review and update. It can also help make informed decisions besides enabling meeting donors (Kirigha, 2016). PME is also important as it provides development services with the chance of understanding a situation in a better way by giving detailed analysis and inferences to help improve poor people's lives. People can celebrate success from such insights. Furthermore, participants gain trust as they get to on0w how important their views are. Local communities forms the primary stakeholders in any project (Estrella and Gaventa, 2018). Such people need to be involved in PME in the early phases of any project.

There is a need for achieving cost effective and efficient results for any project, an aspect that points towards the enhancement of stakeholders' skills for effective discharge of duties (Forss and Carlsson, 2017). The PME effective principles with regards to participation need to be known before the commencement of developing a planning procedure for a project (Chen et al., 2015). Capacity development and collective learning are positive aspect that spring from PME because individuals are made aware of their weaknesses and strengths, perspectives and visions and the wide realities of social life (Puente-Redriguez, 2016). The process of learning presents conditions that are good for any change and action and insists on the level of participation (low to high) for different stakeholder types in the process of definition, parameters' definition and conducting PME. Monitoring and evaluation form a social negotiation aspect for people having different expectations, needs and views of the world (Estrella, 2017). The process may be political as it is meant to address themes of social transformation, power and equity. Monitoring and evaluation is at times referred to as a continuously evolving, flexible and adapting process to specific needs and circumstances of a program.

Programs and projects of PME are always developed in either an unsystematic or ad-hoc way, which presents unreliability and complications perspectives compared to building the process based on formalized or stringent planning (Karali et al., 2014). The increasing interest of participatory approach in the implementation of projects springs up from lessons that people learned in previous years. It has been established that participation of communities, implementers at the local labels, decision makers and program stakeholders involved in any given project has helped in the achievement of development needs (Reed, 2018). It helps in improving local and national ownership sense of program actions leading to the promotion their promotions and hence, achievement of sustainability. The level of stakeholder participation in a y program depends on the participation levels achieved and on

efficiency of the local and national processes (Nordberg and Salmi, 2019). Activities of Monitoring and evaluation can also be used in opening up higher participation levels.

### 2.7. Theoretical Framework

Haberma's theory formed a solid foundation for this study. The public participation concept utilizes the communicative movement and ethics principles from this theory (Macias, 2010). The use of language and rationality were key aspect of the theory applicable to this study. According to Habermas (1964) considers a public sphere as a place that allows people to engage in discussions and access information freely. Habermas states that a communicative action is the process where participants interact, negotiate and consent to a given agreement. He further argues that a rational process creates a meaningful discussion. There is an ideal situation of participation presented by this scholar such that all potential participants must posses an equal opportunity of employing acts of communicative speech and all of them must have a room for interpretation, assertion, recommendation, explanation and justification of a claim. They must also have the chance of justifying and refuting any validity of a claim. An ideal speech situation presented by Habermas has a presumption of equality of participants giving them a chance of participating in any program (Macias, 2010). The consensus principle gives a basis of critique from various scholars because it observes justification of norms in the case participants have a mutual agreement in a speech situation considered to be ideal (Macias, 2010). According to Thomassen 92008), the idea is not practical as it will mean that communication ends because there is no room for disagreements or negotiation.

### 2.8. Conceptual Framework

The term refers to a research methodology planned with an aim of helping researchers understand a situation under analysis (Roberts, 2011). The concept's concept illustrates the relationship between dependence and freedom. An independent variable is one thought to cause an effect to another variable. It can undergo a change as necessary. The value that it has does not give a representation of a problem requiring an explanation in analysis. It can undergo simple correction. The dependent variable is the variable measured in the experiment and the variable whose response to the individual variable is affected during the experiment. Figure 1.1 gives an illustration of the conceptual framework used in this study.

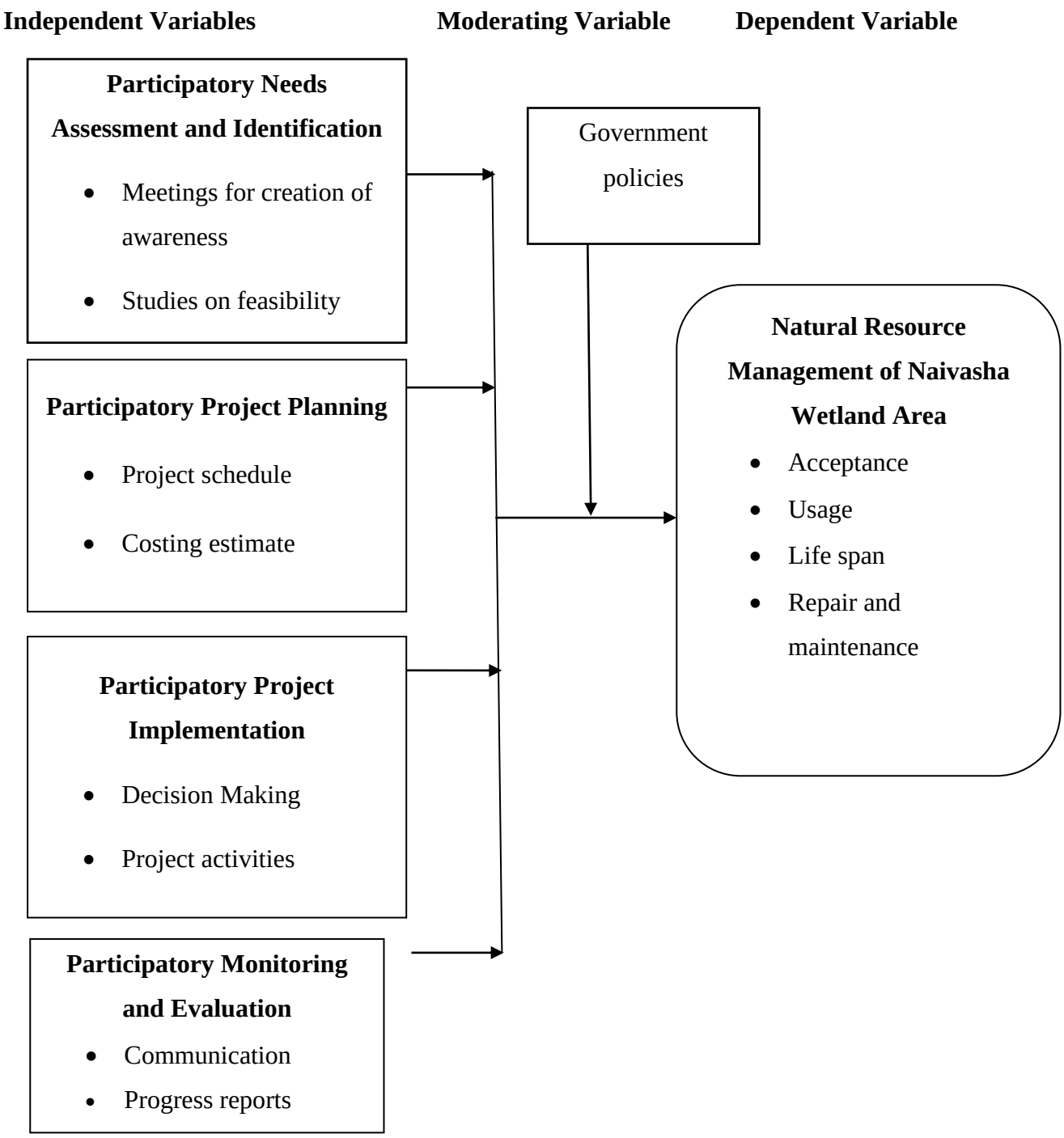


**Figure 1.1. The Conceptual Framework**

**(Researcher, 2022)**

## 2.9. Summary of Literature Review

This section provides information regarding this subject under study from books, journals, previous articles, online articles on the Turkish Grand National Assembly Law and conference presentations. Their perspective on the data will form the basis for comparing this study with the work of other researchers in this field of research. Before planning any project or activity, it is vital to do needs assessment regardless of whether there is information about the needs. Gilbert (2018) added that goals must be linked to the needs and expectations of society to ensure project success and sustainability of the project. However, this requires effective communication with all project stakeholders. Community participation processes in the planning process includes finding stakeholders, developing processes that allow public officials to interact with stakeholders, and improving the overall standard of collaboration. The impact on interest is seen by saying stakeholders are members of a “community” affected by given services and policies and posses the right of expressing their views openly. A good plan is key in ensuring effective actualization of an activity and all stakeholders including trade unions, field and private organizations, governmental organization and the local community need to be involved. Little achievements can be realized when such groups are ignored in the process. Therefore, the study had a focus on the establishment of the impact that participatory development has on the sustainability perspective community projects.

# CHAPTER THREE: RESEARCH METHODOLOGY

## 3.1. Introduction

The chapter covers the research design adopted by the study. There is an explanation of the population used and the sampling method utilized. The tools, techniques and instruments of data collection are explained. Finally, the respective methods of analyzing data are also covered.

## 3.2. Research Design

The study was descriptive and cross-sectional in nature. The descriptive part helped in explaining relationships between specific occurrences and phenomena. Preference was given to descriptive design because it allows the collections of data and flexible responding to questions based on a given research subject. It was instrumental in showing the accuracy related to the situations and profile events of people. The design was also critical as it gave room for extensive variables analysis and examination of demographic characteristics. An explanatory model linked to the secondary data that was collected was essential in the development of cases based on facts and supported by explanations and statistics from the analyzed data.

## 3.3. Target Population

The study used 20 conservationists/ environmentalist, and 2000 community members. The number was arrived by considering the villages surrounding the lake Naivasha wetland. The real number of the village members was not ascertained, and an estimate was made used basing on the households of the community members. There are approximately 235 households along the swamp and the assumption is that each household has nine members. This was arrived at after the researcher sampled ten houses and established an average of nine members per household. This gave a total target population of 2020 respondents. Table 3.1 shows the described population:

**Table 3.1.Target Population**

| Population | Frequency | Percentage |
|---|---|---|
| Conservationists/ Environmentalist | 20 | 1.0 |
| CBOs | 1126 | 55.7 |
| FBOs | 56 | 2.8 |
| SMEs | 670 | 33.2 |
| CFAs | 123 | 6.1 |
| NGOs | 25 | 1.2 |
| **Total** | **2020** | **100** |

### 3.4. Sample Size and sampling Procedure

#### 3.4.1. Sample Size

Stratified sampling technique was used in this study. The choice was based on the allowance it gives a researcher to carry out sampling of inaccessible groups. Furthermore, a formula was utilized in sample size determination, as proposed by Siv Yamane (1973). This formula is an improved version of the Cochran formula and Morgan and Krejcie formula when handling proportion with a confidence level of 95% and a 0.5 proportion.

$n = N/ (1+N*) (e)^2$

Where;

N = population size

n = sample size

e = acceptable sampling error (5%) at 93% confidence level

Therefore;

$n =2020/ (1+2020) (0.05)^2$

n = 400

Table 3.2 shows the distribution of the 400 study respondents:

**Table 3.2. Sample Size**

| Population | Frequency | Percentage | Size of the Sample |
|---|---|---|---|
| Conservationists/ Environmentalist | 20 | 1.0 | 4 |
| CBOs | 1126 | 55.7 | 223 |
| FBOs | 56 | 2.8 | 11 |
| SMEs | 670 | 33.2 | 133 |
| CFAs | 123 | 6.1 | 24 |
| NGOs | 25 | 1.2 | 5 |
| **Total** | **2020** | **100** | **400** |

### 3.4.2. Sampling Procedure

Sampling refers to the selections of individuals with an aim of them participating in a given study. Stratified sampling technique was used in this study. The reason for using the technique was that it allows obtaining a sample from the population that best represents a whole population in a research to ensure that all groups are represented. A total of 400 sample groups were selected from the potential groups of 2020.

## 3.5. Research Instruments

Primary data for the study was collected using questionnaires, as they present cost-effectiveness, time-saving and confidentiality aspects (Lee and McKinney, 2013). Questionnaires also allowed the collection of data from a big sample from different areas. Its questions were directly linked to the study subject. There were both open and closed questions. Open ones ensured maximum data collection while the closed ones increased consistency, which in the end produced both quantitative and qualitative data. There were two sections in the questionnaires namely the research questions and the background information sections. The division of the research questions was based on the study objectives.

The researcher also utilized an interview guide to collect data. An interview, as defined by Nachmias and Nachmias (2016), encompasses a role setting that is face-to-face, where an

interviewer posse a question to seek the response of the interviewee based on a given study matter. The researcher conducted in-depth interviews with conservationists/ environmentalists to learn about the function played by participatory development communication with regards to the management of natural resources: a case of Naivasha Wetland Area.

### 3.5.1 Piloting of Research Instruments

There was a pilot study that helped in the evaluation of the study feasibility. The importance of the pilot study was based on the fact that there was no money and time that were ready to be wasted through the adoption of data collection tools that were inconsistent. The respondents who responded to the questionnaires had the same characteristics as the target population. It was important to insist that all the questions in the questionnaires be answered without any change of meaning.

### 3.5.2 Validity of Research Instruments

According to Mugenda and Mugenda (2003), validity means the level at which a given instruments performs its functions compared to what it claims to do. The opinion of the supervisor for this study was sought based on construct, criterion and content-related validity. Suggestions made by the supervisor were considered in the development of the final questionnaire for accuracy.

### 3.5.3 Reliability of Research Instruments

Different instances were considered in the administration of the questionnaire to ensure that there was reliability. Further testing weas done on the respondents in a span of 2 weeks to see if the tools gave similar results. The Pearson Correlation coefficient was used to determine the reliability of the tools. A coefficient above 0.7 reflected a good strong positive relationship.

## 3.6 Data Collection Procedure

A one-week period was considered for data collection. There was a two days training for the three assistants that aided the study. Training was based on enlightening them on the study purpose, explaining important terms utilized and insisting in the critical relevance of ethics during data collection. The researcher visited the respondents before data collections to make

requests about their availability and ask for their convenient times for interviews and administration of questionnaires. The questionnaires were then administered at the appointed time. The study assistants emanated from the target community to sort out the hinderance and suspicion aspects.

### 3.7. Data Analysis Techniques

Research articles were analyzed both quantitatively and qualitatively. Collected data was entered into SPSS for analysis. Quantitative data was created by creating dots and patterns with the descriptive statistics function in SPSS, and tables, frequencies and percentages, and the quality of the data were presented using words and observations rather than numbers.

### 3.9. Ethical Consideration

The National Council for Science and Technology and Innovation (NACOSTI) and other concerned relevant gave permission for the study to proceed. All respondents had to be assured about confidentiality of their response and that they were only going to be utilized for an academic purpose. Their names were never going to be disclosed. Additionally, no one was forced to participate in the study as it was voluntary. The researcher introduced himself before commencement of any data collection activity and ensured that he was truthful throughout the process.

# CHAPTER FOUR: ANALYSIS AND DISCUSSION

## 4.1 Introduction

The chapter presents all the results obtained based on the study objectives. The analysis and interpretation of the results are well outlined. Aspects such as the rate of response, demographic characteristics of respondents are covered. Furthermore, both descriptive and inferential statistics are explained.

## 4.2 Response Rate

In this research, sample size was made up of Conservationists/ Environmentalist, CBOs, FBOs, SMEs, CFAs and NGOs. A total of 400 questionnaires were distributed during data collection. The number of questionnaires that were wholly filed and returned was 349 questionnaires, which represented an 87.2% rate of response. According to Devi (2019), a 50% response rate is considered sufficient for data analysis. A 70% response is considered excellent for the same purpose (Stokes and Wall, 2017). Therefore, the 87.2% figure falls within the considerable acceptance limit for the procession of data analysis so that proper inferences can be made. The rate of response is summarized in Table 4.3

**Table 4.3 Rate of Response**

| Rate of Response | Response frequency | Percentage |
|---|---|---|
| Responded | 349 | 87.2 |
| Not Responded | 51 | 12.8 |
| **Total** | **400** | **100.0** |

*Source: (Survey Data, 2023)*

## 4.3 Demographic Information

The respondents' personal information was sorted to determine their personality in relation to the study to determine the quality and trustworthiness of the data provided. In this regard, the researcher was curious about the respondents' gender, age, and education level.

### 4.3.1 Gender of Respondents

Out of the 349 respondents, 236 (67.6%) were male while 113(32.4%) were female. The respondents were chosen because they all had some understanding of the topic under investigation. The implication is that male gender made up most of the respondents and there was no gender biasness. There was reliable information collection from all respondents.

**Table 4.4 Gender of Respondents**

| | **Frequency** | **Percentage** |
|---|---|---|
| Male | 236 | 67.6 |
| Female | 113 | 32.4 |
| **Total** | **349** | **100.0** |

*Source: (Survey Data, 2023)*

### 4.3.2 Respondents Age Bracket

Table 4.5 shows that most respondents 110 (31.5%) were between 31 and 40 years, 88(25.2%) were between 25 and 30 years, 65(18.6%) were between 41 and 50 years whereas 49(14.0%) were above 51 years and 37(10.6%) were 24 years and below. Therefore, the age of teachers and head teachers cut across the entire age category. Every age category had a representation in the study, an indication that there was collection of representative data of the target population.

**Table 4.5 Age Bracket of the Respondents**

| **Age bracket** | **Frequency** | **Percentage** |
|---|---|---|
| 24 and below | 37 | 10.6 |
| 25-30 | 88 | 25.2 |
| 31-40 | 110 | 31.5 |
| 41-50 | 65 | 18.6 |
| Above 51 | 49 | 14.0 |
| **Total** | **349** | **100.0** |

*Source: (Survey Data, 2023)*

### 4.3.3 Education Level

Table 4.6 indicates the highest education level was certificate/diploma represented by 129(36.9%) of respondents. Graduates were 88(25.5%) while secondary school respondents were 68(19.4%). 64(18.5%) were postgraduates. The indication is that all respondents had the ability to comprehend and respond well to the questions on the questionnaires.

**Table 4.6 Teachers Highest Level of Academic Qualification**

| | Frequency | Percent |
|---|---|---|
| Secondary Education | 68 | 19.4 |
| Certificate or Diploma | 129 | 36.9 |
| Graduate | 88 | 25.2 |
| Postgraduate | 64 | 18.5 |
| **Total** | **349** | **100.0** |

*Source: (Survey Data, 2023)*

### 4.4 Participatory Needs Assessment

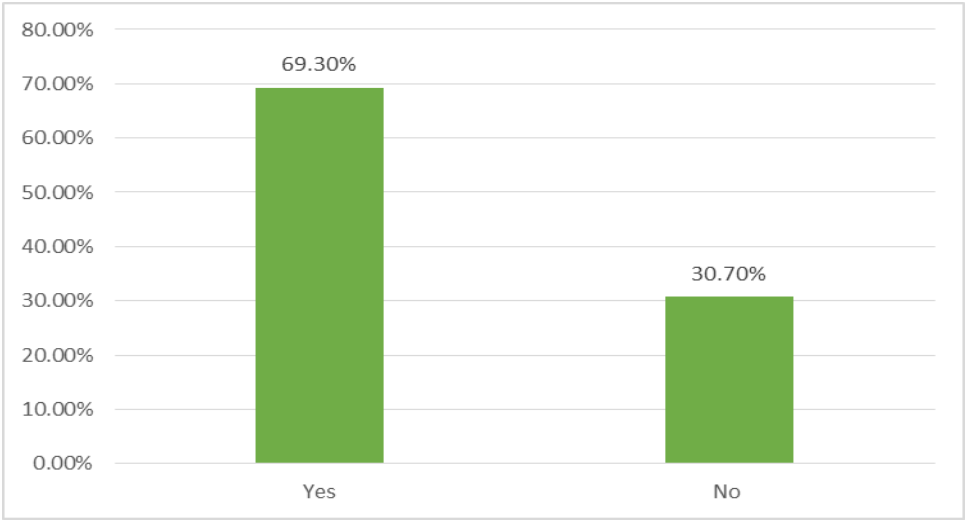


**Figure 4.2 Participatory Needs Assessment**

The study also sought to find out if participatory needs assessment were being utilized in reducing destruction of natural resources. 69% indicated that participatory needs assessment was being utilized in reducing destruction of natural resources while 30% were of the contrary opinion. Participatory needs assessment can be a valuable tool in addressing environmental issues and de-escalating the destruction of natural resources. By involving

local communities in making decisions and identifying their needs and priorities, PNA can help to build trust and understanding between communities and environmental decision-makers, foster a sense of ownership and responsibility, identify alternative livelihoods, and develop appropriate directly linked to local communities' desires and wants.

### 4.4.1 Typologies of Participation

Respondents were also required to describe the level from participation typologies. They had to describe how well the community participates in the assessment of needs with regards to natural resources. They noted that the type of participation used to define community participation in natural resource needs assessment depends on how local communities are consulted in the decision-making process. There are several typologies of participation that have been developed by different scholars, but one of the most commonly used is Arnstein's ladder of citizen participation.

The ladder suggests eight rungs of participation, ranging from non-participation at the bottom to citizen control at the top. The level of participation which gives the best description of participation of local communities in a needs assessment of natural resources will depend on the degree of influence that the community has in the process of making decisions.

At the bottom most part of the ladder is manipulation, where the community is only informed about decisions that have already been made and has no real opportunity to provide input or influence the decision-making process. This level of participation would not be suitable for a needs assessment of natural resources, as it would not allow for meaningful community input.

The next level up is therapy, where the community is consulted and their opinions are heard, but ultimately decisions are made by external experts or authorities. This level of participation may be suitable for a needs assessment of natural resources but would need to be accompanied by a commitment to incorporate community feedback into decision-making.

The third level is informing, where the community is provided with information about the issues at hand, but has no real opportunity to provide feedback or influence the decision-making process. This level of participation may be suitable for a basic needs assessment of natural resources but would not allow for meaningful community input.

The fourth level is consultation, where the community is asked for their opinions and feedback, but ultimately the decision-making power remains with external authorities or experts. This level of participation may be suitable for a needs assessment of natural

resources but would need to be accompanied by a commitment to incorporate community feedback into decision-making.

The fifth level is placation, where the community is given the illusion of influence or control, but ultimately decisions are made by external authorities or experts. This level of participation may be suitable for a basic needs assessment of natural resources but would not allow for meaningful community input.

The sixth level is partnership, where the community is involved in a collaborative partnership with external authorities or experts, with decision-making power shared between the two groups. This level of participation may be suitable for a needs assessment of natural resources, as it allows for meaningful community input.

The seventh level is delegated power, where the community has the authority to make decisions, but within a limited scope. This level of participation may be suitable for a needs assessment of natural resources, as it allows for meaningful community input and decision-making power.

The eighth and highest level of participation is citizen control, where the community has full decision-making power and control over the issues at hand. This level of participation may not be suitable for a needs assessment of natural resources, as it would require significant resources and capacity-building for the community to take on this level of responsibility.

Overall, participation level that gives the best description of the participation of the local community in a needs assessment of natural resources will depend on the degree of influence that the community has in the decision-making process. Depending on the situation, a partnership or delegated power level of participation may be most appropriate.

This is according to Lee and Reeves (2019), who found that assessing needs before planning work is of essence, even if people think that they possess knowledge of what the needs may be. To ensure success and project sustainability, goals need to be aligned to societal expectations and desires. A needs assessment in any communal set up helps in identification of challenges the community may face. Therefore, assessment becomes important in early phases of a project’s life. It focuses on identification of hinderances to creating social impact and finding solutions to these challenges.

### 4.4.2 Participatory Needs Assessment on Natural Resource Management

Looking at the results in Table 4.7, participants largely agreed with the participation needs assessment statement with a composite score of 3.78; Participants agreed that there is a standard that determines whether a community's wetlands will be significantly impacted. . Protection is indicated by an average score of 3.90. Respondents agreed, with an average score of 3.87, that the community conservation committee has the final say in protecting elder springs. Participants believed that the community involved in all wetland projects needed a multi-level evaluation that included averaging. With a score of 3.80, participants agreed that the community flood control committee identified the need for protection with an average score of 3.71, and participants agreed that assessments should be able to share problems and identify solutions in the community.

**Table 4.7 Participatory Needs Assessment on Natural Resource Management**

| Statement | Mean | Std. Deviation |
|---|---|---|
| The final say on matters of wetland protection lie solely with the committee | 3.87 | 1.678 |
| Community wetland protection committee are involved in identification of springs that need protection | 3.71 | .432 |
| There exists a criterion used in identification of community wetlands that need protection | 3.90 | .908 |
| Participatory needs assessment helps in problems clarification and identification of solutions within the community | 3.63 | 1.521 |
| I feel that the community is fully involved in wetland project needs assessment | 3.80 | .337 |
| **Composite Mean** | **3.78** | **0.975** |

*Source: (Survey Data, 2023)*

The conservationists/ environmentalist indicated that participatory needs assessment was an important process that involved identification of priorities and needs by the local community, regarding natural resource management. The involvement of local communities is essential because they have a direct and intimate relationship with the natural resources that sustain them, and their knowledge and experiences are vital for developing sustainable solutions. Involving local communities in participatory needs assessment on natural resource

management is essential for developing sustainable solutions that are socially, economically, and environmentally appropriate. It also helps to build trust and collaboration between the local communities and key stakeholders involved in management of natural resources.

They also added that effective participation means that local communities have a meaningful role in shaping the design, implementation, and evaluation of conservation interventions. This includes to assess, plan and design, implement, monitor and evaluate, and adaptively manage the resources. However, in practice, achieving effective communication is hard. There are many challenges and barriers that can limit the space given to local communities in decision-making. Some of them include power imbalance amongst different stakeholders, conflicting priorities and interests, resources limitation and limited capacity of local communities. For such challenges to be sorted out, it is important to employ inclusive and participatory approaches that involve all stakeholders in the decision-making process. This requires building trust and relationships among stakeholders, developing clear and transparent communication channels, providing training and capacity building to local communities, and providing adequate resources and support for effective participation. Overall, while there may be limitations to the space given to local communities in decision-making, it is crucial to prioritize their involvement and ensure that their perspectives and knowledge are integrated into conservation efforts. This can lead to more effective and sustainable conservation outcomes that benefit both local communities and the environment.

Assessing community needs forms an important for all planning interventions on behalf of communities facing specific social problems (Rossi and Lipsey, 2014). They added that community needs assessment will help practitioners establish the problems scope and nature, on which interventions can focus in order to identify interventions that will be effective in providing solutions to problems. Furthermore, community needs assessment helps reveal the community affiliates that will benefit most from the intervention plan and who will not and enable the plan to demonstrate that resources an avoidance of resource wastage through informed allocation. Assessing community needs has to involve communities the different planning levels and considering everyone who may be affected by planning, including children, adults, and people with mental illness (Rossi and Lipsey, 2014). Community development planning begins with identifying and realizing that there is a need.

### 4.4.3 Inferential Analysis

This determined the affiliation between participatory needs assessment on natural resource management in Naivasha Wetland Area using the Pearson Correlation Coefficient. The Pearson Correlation Coefficient results are indicated in Table 4.8.

**Table 4.8 Participatory Needs Assessment and Natural Resource Management**

| Variable | | Natural Resource Management |
|---|---|---|
| **Participatory Needs Assessment** | Pearson Correlation | 0.791* |
| | Sig. (2-Tailed) | 0.000 |
| | n | 49 |

* Correlation is significant at the 0.05 level (2-tailed)

A value of 0.7917 with a p-value < 0.057 shows a strong significant relationship between participatory needs assessment and natural resource management in the study area. They also show a strong positive correlation between them.

## 4.5 Participatory Project Planning

Lack of information, trust, time, language and cultural barriers, and power imbalances are common factors that may hinder people's participation in project planning on the management of natural resources. Addressing these barriers and creating opportunities for meaningful participation is critical for effective and equitable natural resources management were some factors which the respondents found to hinder their project planning involvement on management of natural resources. These findings were in line with Hamdi and Geothert (2017), who asserted the importance of meaningful and active involvement of community people in actions that affect them. Passive participation was one of the participation levels identified. The key stakeholders in this plan are involved with an understanding of the things that either happened or shall happen. There is little to no feedback from people, and their engagement is measured by people counting, participation in discussions, etc. Interviewing is a method of obtaining answers from participants to questions from external experts. Ideas can be presented even out of the meetings.

### 4.5.1 Role of Participatory Project Planning in Natural Resources Management

Respondents had to tell the function of participatory project planning in natural resources management. The respondents indicated that participatory project planning play a significant

function in natural resources management. It involves involving stakeholders, including local communities, in preparation and decision-making process of managing natural resource projects. The process is intended to ensure that the perspectives, knowledge, and needs of all stakeholders are taken into account, resulting in more effective and sustainable resource management.

Improved decision-making: Involving stakeholders in the planning process helps to ensure that all perspectives are considered and that decisions are made with a full understanding of the potential impacts on the natural resources being managed. This can lead to more effective and sustainable resource management decisions.

Increased ownership: When stakeholders are involved in the planning process, they are more likely to feel ownership and responsibility for the project's success. This can lead to greater support for the project and a greater willingness to participate in the project's implementation.

Increased transparency: Participatory project planning can help to increase transparency in the decision-making process by making sure that stakeholders are informed and involved in the process. This can help to build trust and credibility with stakeholders.

Enhanced capacity building: Participatory project planning can help to build the capacity of stakeholders by providing them with new knowledge and skills related to natural resource management. This can help to empower stakeholders and increase their ability to participate in future natural resource management projects.

Improved social outcomes: Participatory project planning can help to ensure that the social impacts of natural resource management projects are considered and addressed. This can lead to more equitable outcomes and help to avoid potential conflicts between different stakeholder groups.

In summary, participatory project planning is an important tool for effective and sustainable natural resource management. It helps to ensure that all perspectives are considered in decision-making, increases stakeholder ownership and transparency, enhances capacity building, and improves social outcomes.

### 4.5.2 Participatory Project Planning on Natural Resource Management

Table 4.8 shows that respondents agreed with statements on participatory project planning as shown by composite mean of 3.78 in that; community wetland protection committee were

trained on spring protection as shown by a mean score of 3.99, the community is responsible for controlling and owning projects as shown by a mean score of 3.81. The community was also involved in making decisions on project design as shown by a mean score of 3.79. The community is involved in the discussion and agreement of contribution to a project as shown by a mean score of 3.70. There is empowering of the disadvantaged groups in the local community and integration of knowledge in locals regarding project design, as shown by a mean score of 3.64.

**Table 4.9 Participatory Project Planning on Natural Resource Management**

| **Statement** | **Mean** | **Std. Deviation** |
|---|---|---|
| Decisions on project design involve the community | 3.79 | .567 |
| The community owns and controls the projects | 3.81 | 1.309 |
| The community wetland protection committee are trained on spring protection | 3.99 | 1.532 |
| There local disadvantaged group has been empowered and there has been integration of local knowledge systems into project design | 3.64 | .998 |
| Community holds discussions to agree on their project contribution | 3.70 | .007 |
| **Composite Mean** | **3.78** | **0.882** |

*Source: (Survey Data, 2023)*

The conservationists/ environmentalist indicated that there are several methods that can be used to get ideas and views of local community people on natural resource management. Some of these methods include:

Focus group discussions: This involves bringing together a group of community members to discuss a specific topic related to natural resource management. The discussions are usually facilitated by a trained moderator and aim to explore community members' perceptions, experiences, and opinions.

Participatory mapping: This involves using maps to visually represent community members' knowledge of natural resources and their locations. Community members are encouraged to draw maps and provide information on areas of importance, ecological features, and potential threats or challenges.

Surveys and questionnaires: These involve structured questionnaires that are administered to community members to gather data on their perceptions, attitudes, and behaviors related to natural resource management.

Interviews: These involve one-on-one discussions with community members to gather more in-depth information about their experiences, perspectives, and opinions on natural resource management.

Community meetings: These involve convening community members in a group setting to discuss natural resource management issues and develop collective solutions. Meetings can be formal or informal and can be facilitated by community leaders or external facilitators.

The choice of method depends on the specific context and objectives of the management of natural resource project, resources and capacity available for implementation. It is important to ensure that the methods used are culturally appropriate, inclusive, and respectful of community members' knowledge, perspectives, and practices.

Moreover, Ray (2015) adds that, during final analysis, the consultation procedure gives the power of making decisions to external experts who do not have the responsibility to share the views of the stakeholders. Project goals need participation by stakeholders in their analysis and discussion. The involvement level usually doesn’t lead to major changes in what needs to be done; this is usually already determined. Stakeholders have the empowerment and willingness of starting and getting engaged in a project. The outcome is a shared decision on the activities that need to be undertaken. The shareholders have the ownership and control of the process (Wanyera, 2016). Development planning considers participatory planning as an approach involving the observation of principles and the will of the community participating in making decisions that impact their lives. The new paradigm continues to gain momentum at the global stage with regards to the development planning field.

### 4.5.3 Inferential Analysis

The research aimed at establishing the relationship between participatory project planning on natural resource management in Naivasha Wetland Area using Pearson Correlation Coefficient. The results of the coefficient are shown in Table 4.10.

**Table 4.10 Participatory Project Planning on Natural Resource Management**

| Variable | | | Natural Resource Management |
|---|---|---|---|
| **Participatory Planning** | **Project** | Pearson Correlation | 0.680* |
| | | Sig. (2-Tailed) | 0.017 |
| | | n | 49 |

* Correlation is significant at the 0.05 level (2-tailed)

A coefficient value of 0.680 and p-value < 0.05 shows strong positive correlation between the two variables. Furthermore, it indicates a significant relationship between participatory project planning and management of natural resources.

### 4.6 Participatory Project Implementation

Respondents were required to indicate their experience in implementing projects aimed at conserving natural resources and whether they thought local communities got enough room of participating in making of decisions. They indicated that participatory approaches to natural resource management seek to involve local communities in processes of making decisions, as they are often the ones most directly impacted by natural resources management. However, the degree to which these communities get involved can depend on a range of factors, such as the level of trust between project implementers and community members, their capacity to participate, the goals and objectives of the project, and the broader political and economic context in which the project is taking place.

Some projects may involve extensive community participation in decision-making processes, while others may have more limited participation, such as through consultation processes or stakeholder meetings. Participation is not a box-ticking exercise but as a genuine effort to involve and empower communities in decision-making processes.

Efforts should be made to ensure that local communities are informed about the project and its goals, and that they are given opportunities to provide feedback and influence decision-making processes. This can help to build trust, increase ownership, and ensure that the project is responsive to the needs and perspectives of local communities.

Overall, it is essential to ensure that local communities get adequate room for participating in processes of making decisions related to natural resource management projects, as their input and perspectives are critical for achieving sustainability and long-term success of projects.

The study was supported by Ohwahwa, (2019) who argued that participation involves the division of responsibilities and tasks in management, construction and planning stages of a project. However, a lack of institutionalization makes this strategy unachievable. This calls for adoption of devices such as MOUs to help implementation committees champion participation in execution of a project. An involvement of people likely to benefit from the project is key in ensuring that it becomes sustainable.

### 4.6.1 Participatory Project Implementation on Natural Resource Management

According to Table 4.9, respondents agreed to a high level indicated by a composite mean of 3.83 that; local community provided labor in the implementation phase of the project of protecting the wetland by a mean score of 4.00, transparency was observed when carrying out wetland project activities as shown by a mean score of 3.91, procurement of resource and materials for the project involved community members as shown by a mean score of 3.89, the project's decision-making phase involved the local community as shown by a mean score of 3.73 and all wetland implementation actions were agreed upon and shared with the community as shown by a mean score of 3.65.

According to Chambers (2017), the local community helps in identification of projects and they show interest in their completion. Most governments aim at improving people's lives. However, corporate organizations and governments get involved in development projects in communities without determining the desires and needs of the community making it impossible to realize the project goals. It is important to observe participation and sharing of responsibilities and tasks throughout the project life. A lack of institutionalization of such a strategy makes it a wild dream, hence the need to adopt some devices such as engaging in MOUs and urging the implementation committees to champion community participation in projects. Project sustainability can only be achievement by involving people in projects.

**Table 4.11 Participatory Project Implementation on Natural Resource Management**

| Statement | Mean | Std. Deviation |
|---|---|---|
| The decision-making process in projects involves the local community | 3.73 | 1.543 |
| Procurement of resources and materials in the project involves the local community | 3.89 | .776 |
| The labour utilized during project implementation is sourced from community members | 4.00 | .908 |
| There is sharing and agreement of all wetland implementation activities by the community | 3.65 | 1.532 |
| Transparency is observed all throughout the wetland protection project | 3.91 | .554 |
| **Composite Mean** | **3.83** | **1.062** |

*Source: (Survey Data, 2023)*

### 4.6.2 Participatory Communication in Project Implementation Natural Resource Management

Respondents were also required to describe the roles of participatory communication in project implementation natural resource management. They indicated that participatory communication plays a major function in implementing natural resource management developments that involve local communities. It involves the use of two-way communication channels between project implementers and local communities, with the goal of ensuring that all stakeholders have a voice and are engaged in the project's implementation. The following are some of the roles of participatory communication in project implementation:

Information sharing: Participatory communication can facilitate the exchange of information between project implementers and local communities. It can help to ensure that communities are well-informed about the project's objectives, activities, and potential impacts. This can help to build trust, increase transparency, and ensure that community members have the information they need to make informed decisions.

Consultation: Participatory communication can provide a platform for consultation with local communities. This can involve seeking input from community members on project design

and implementation and providing opportunities for feedback and discussion. This can help to ensure that the project is responsive to local needs and perspectives and can help to build support for the project.

Empowerment: Participatory communication can help in empowering local communities through provision of information and skills they need to participate meaningfully in project implementation. This can include providing training in communication and advocacy skills, as well as provision of chances to members of the community with regards to participating in processes of decision-making.

Conflict resolution: Participatory communication can help to resolve conflicts that may arise during project implementation. It can provide a platform for dialogue and negotiation between different stakeholders and can help to identify and address areas of disagreement.

Monitoring and evaluation: Participatory communication helps in monitoring and evaluating project implementation. It can help to ensure that project implementers are accountable to local communities and can provide a platform for community members to give their feedback on the progress of the progress of a project and its impact.

The conservationists/ environmentalist also indicated that there are various platforms, whuich can get utilized in communicating natural resource management information among local communities. The platform's choice is dependent on the target audience, information nature, and the available resources and infrastructure. Some examples of platforms that can be used for communicating natural resource management information include:

Community radio: Community radio is a popular and effective platform for communicating natural resource management information, especially in areas with limited access to other forms of media. Community radio stations can provide regular updates on natural resource management issues, broadcast educational programs, and host discussions and debates.

Social media: Platforms like Instagram, Twitter and Facebook can be used to disseminate information about natural resource management to a wide audience quickly and efficiently. Social media can also be used to engage with local communities and encourage participation and feedback.

Mobile phone applications: Mobile phone applications can be used to provide information on natural resource management to local communities. These applications can provide

information on the sustainable use of natural resources, offer tips on conservation practices, and provide updates on natural resource management initiatives.

Community meetings: Community meetings provide a face-to-face platform for communicating natural resource management information and engaging with local communities. These meetings can be organized at regular intervals and can include presentations, group discussions, and interactive activities.

Printed materials: Printed materials such as brochures, leaflets, and posters can be used to communicate natural resource management information to local communities. These materials can be distributed in public places, schools, health centers, and other community spaces.

In summary, there are various platforms that can get utilized in communicating natural resource management information among local communities. The choice of platform should be based on the target audience, the nature of the information being communicated, and the available resources and infrastructure.

### 4.6.3 Inferential Analysis

The research aimed at establishing the association between participatory project implementation and natural resource management in Naivasha Wetland Area using Pearson Correlation Coefficient. The coefficient values are indicated in Table 4.12.

**Table 4.12 Participatory Project Implementation and Natural Resource Management**

| **Variable** | | **Natural Resource Management** |
|---|---|---|
| **Participatory Project Implementation** | Pearson Correlation | 0.643* |
| | Sig. (2-Tailed) | 0.029 |
| | n | 49 |

* Correlation is significant at the 0.05 level (2-tailed)

The correlation value of 0.643 and a p-value < 0.05 shows strong positive correlation between the two variables. Furthermore, it indicates a significant relationship between participatory project planning and management of natural resources.

### 4.7 Participatory Monitoring and Evaluation

Respondents indicated factors that hindered participatory monitoring and evaluation on the management of natural resources. They indicated that PM&E is a process that involves local communities in monitoring and evaluating natural resource management projects. While PM&E can have many benefits, there are also several factors that can hinder its implementation. The following are some of the factors that can hinder PM&E in natural resource management:

Lack of awareness and understanding: One of the main barriers to PM&E is a lack of awareness and understanding among local communities. If community members are not aware of the importance of monitoring and evaluation, they may not be willing or able to participate in the process.

Limited capacity: Participatory monitoring and evaluation requires a certain level of technical expertise, as well as strong communication and analytical skills. If local communities lack the necessary capacity, they may struggle to participate effectively in the process.

Power dynamics: Participatory monitoring and evaluation can challenge power dynamics between project implementers and local communities. If local communities do not feel empowered to participate or are hesitant to challenge project implementers, this can hinder the effectiveness of the PM&E process.

Time and resource constraints: Participatory monitoring and evaluation can be time-consuming and resource intensive. If project implementers do not allocate sufficient time or resources to the process, local communities may struggle to participate effectively.

Lack of trust: Participatory monitoring and evaluation requires a high level of trust between project implementers and local communities. If there is a lack of trust between these stakeholders, community members may be hesitant to participate in the process or may provide inaccurate or incomplete information.

Political and social instability: Participatory monitoring and evaluation can also be hindered by broader political and social factors, such as conflict, instability, or corruption. These factors can make it difficult to implement effective PM&E processes and can also undermine the sustainability of natural resource management projects.

Research by (UNDP, 2012) shows that if there is no good planning, monitoring, and analysis, it is not possible to determine whether the project is moving in the right direction, whether it is possible to claim prosperity and success, and whether future efforts will improve. Evaluation can also provide other important data regarding future potential and impact. Both evaluation and monitoring make use of collected data in assessing a program's status at respective points and provide the review basis and update of the program, developing good decisions while meeting the needs of donors. PM&E provide development services with the opportunity to better understand the situation on the ground through detailed analysis and analysis of changes and focus on the ideal of improving the lives of the poor. It gives room to individuals to celebrate success while learning from failure. Furthermore, it is a motivating process for participants because they are held accountable. It also plays a key role in establishing healing wisdom among participants and appreciating their opinions. The main stakeholders of a community project are the local communities who will be affected by the project.

### 4.7.1 Participatory Monitoring and Evaluation on Management of Natural Resources

Respondents largely agreed with the statement regarding PM&E of management of natural resource management, with a mean of 3.96 (see Table 4.10); Important information is obtained as a result of monitoring and evaluation, and they have a lot to do. Great help with future planning and improvement, with an average rating of 4.09. By participating in monitoring and evaluation, communities feel that their needs are considered. Monitoring and evaluation offers the room for celebrating many successes together while learning from past mistakes, as shown by the average score of 4.00. Monitoring and evaluation made the program focused on improvement, as indicated by the average score of 3.95. With an average score of 3.90, the community has largely identified and acquired skills that lead to care through monitoring and evaluation in identifying and identifying changes in the process, as indicated in people's lives. Average 3.90 points per. Average score 3.88.

Moreover, Forss & Carlsson (2017) insist on the importance of involving all stakeholders not only during the life of any project but also during the background studies. An increased need for cost effective and efficient results requires stakeholders to possess skills that enable them perform their functions. Effective PM&E principles are important and should only follow an effective planning process. PM&E involves people developing and collectively learning and being aware of their weakness and strengths, perspectives and visions and wide realities of

societies. The process of learning provides good conditions for action and change and puts emphasis on various degrees of participation (low-high) with regards t different stakeholders in its initiation and definition parameters. M&E also provides room for people to share their views of the world, expectation and needs. It takes the political dimension as it touches on themes of social transformation, power and equity. It is a process that continuously evolves according to the requirements of specific programs (Estrella, 2017).

**Table 4.13 Participatory Monitoring and Evaluation on Natural Resource Management**

| Statements | Mean | Std. Deviation |
|---|---|---|
| Relevant information is obtained through M&E which assists in fine tuning and planning the future | 4.09 | 1.908 |
| M&E enables a project to pay attention on improving people's lives and identifying the needed change | 3.90 | .543 |
| M&E provides an opportunity of celebrating success while learning from past mistakes | 3.95 | .431 |
| Through M&E, the community identified and acquired skills that enable best performance of projects | 3.88 | 1.004 |
| The involvement of M&E, the community develops the feeling that their views are considered | 4.00 | 1.476 |
| **Composite Mean** | **3.96** | **1.072** |

*Source: (Survey Data, 2023)*

### 4.7.2 Recommendations on How Community Members Can Have Full Participation on Monitoring and Evaluation of Natural Resources

Respondents recommended that by ensuring full community members participation in M&E of natural resources requires a participatory approach that fosters strong relationships, building capacity, involving community members in all stages of the process, fostering a culture of learning, ensuring transparency and accountability, and valuing local knowledge can ensure the community have full participation on monitoring and evaluation of natural resources.

The conservationists/ environmentalist added that factors influencing local communities in participating in project implementation and natural resource management discourse include the relevance of the project, trust and respect, decision-making participation, incentives and benefits, cultural factors, and information access.

And finally, the conservationists/ environmentalists indicated that lack of resources: Participatory monitoring and evaluation requires resources such as time, personnel, and funding. If these resources are limited or not allocated properly, it can hinder the participation of local communities in monitoring and evaluation activities.

Limited capacity: Local communities may lack the technical expertise and knowledge required to effectively participate in monitoring and evaluation activities. This could include skills in data collection, analysis, and reporting.

Power imbalances: Power imbalances between different stakeholders can hinder participatory monitoring and evaluation. For example, if the views of local communities are not valued or considered, they may be less likely to participate in monitoring and evaluation activities.

Limited stakeholder engagement: Effective monitoring and evaluation requires the participation of all stakeholders, including government agencies, NGOs, and the private sector. If some stakeholders are not engaged or do not participate in M&E activities, it can hinder the process effectiveness.

Language and cultural barriers: Language and cultural barriers can make it difficult for local communities to participate in monitoring and evaluation activities. If monitoring and evaluation activities are conducted in a language that is not familiar to local communities, or if cultural practices are not considered, it can hinder their participation.

Limited feedback mechanisms: Effective monitoring and evaluation requires feedback mechanisms that allow local communities to receive information on the results of the process and how their input was used. If feedback mechanisms are not in place or are limited, it can discourage local communities from participating in future monitoring and evaluation activities were some of the factors that hindered PM&E on management of natural resources.

### 4.7.3 Inferential Analysis

The research aimed at determining the association between PM&E and natural resource management in Naivasha Wetland Area using Pearson Correlation Coefficient. The coefficient results are indicated in Table 4.14.

**Table 4.14 Participatory Monitoring and Evaluation on Natural Resource Management**

| Variable | | Natural Resource Management |
|---|---|---|
| **Participatory Monitoring and Evaluation** | Pearson Correlation | 0.756* |
| | Sig. (2-Tailed) | 0.000 |
| | n | 49 |

* Correlation is significant at the 0.05 level (2-tailed)

The coefficient of 0.756 and a p-value < 0.05 shows strong positive correlation between the two variables. Furthermore, it indicates a significant relationship between participatory project planning and management of natural resources.

### 4.8 Pearson Correlation Coefficient

The Pearson's correlation coefficient results (shown in Table 4.15) indicate a considerable positive relationship between participatory needs assessment and natural resource in Naivasha Wetland Area (rho = 0.791, p-value 0.05). There was also a strong positive link between participatory project planning (rho = 0.680, p-value 0.05) according to the data. In Naivasha Wetland Area, there was also a significant positive relationship between participatory project implementation and natural resource (rho = 0.643, p-value 0.05), as well as a significant positive relationship between participatory monitoring and evaluation and natural resource management in Naivasha Wetland Area (rho = 0.756, p-value 0.05).

This meant that through the observation of participation in needs assessment, project planning and implementation and PM&E, there was effective natural resource management in Naivasha Wetland Area.

**Table 4.15 Correlation Matrix**

| | Participatory needs assessment | Participatory project planning | Participatory project implementation | Participatory monitoring and evaluation |
|---|---|---|---|---|
| Natural resource management (r)<br>(p) Sig. (2 tailed) | 1.000 | | | |
| Participatory needs assessment (r)<br>(p) (2 tailed) | 0.791*<br>0.000 | 1.000 | | |
| Participatory project planning (r)<br>(p) Sig. (2 tailed) | 0.680*<br>0.017 | 0.228<br>0.115 | 1.000 | |
| Participatory project implementation (r)<br>(p) Sig. (2 tailed) | 0.643*<br>0.029 | 0.171<br>0.212 | 0.179<br>0.327 | 1.000 |
| Participatory monitoring and evaluation (r)<br>(p) Sig. (2 tailed) | 0.756*<br>0.000 | 0.314<br>0.102 | 0.262<br>0.133 | 0.210<br>0.184 |

* Correlation is significant at the 0.05 level (2-tailed)

# CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

The chapter presents a summary of the findings of the study. There are also conclusions derived from the finings and deduced recommendations. The study objectives included; to determine impact of participatory needs assessment on natural resource management in Naivasha Wetland Area; to find influence of participatory project planning on natural resource management in Naivasha Wetland Area, to assess the impact of participatory project implementation on natural resource management in Naivasha Wetland Area and to assess the PM&E's impact on natural resource management in Naivasha Wetland Area.

## 5.2 Summary of the Findings

Findings derived in preceding chapter are summarized in this section. This part is divided into four components, each of which corresponds to one of the objectives.

### 5.2.1 Participatory Needs Assessment on Natural Resource Management

The study found that most of the participants indicated that participation in needs assessment was used as a tool to help reduce damage to natural resources. Participants also agreed with the statement regarding identifying collaboration needs. This is according to Lee and Reeves (2019), who found out the significance of assessing needs before engaging in planning, despite knowing what are entailed in the needs. To ensure the success and project sustainability, aims and objectives need a linkage with society's desires and wants. However, it requires effective communication with all project stakeholders. The purpose of the needs assessment includes idenitifcation of community assets and the challenges the community may face. Therefore, assessment becomes important in early project phases. Needs analysis aims at finding barriers to creating social impact and finding suitable alternatives and solutions to the hindrances. Assessing community needs is important for all planning interventions on behalf of communities facing specific social problems (Rossi and Lipsey, 2014). They added that community needs assessment will help practitioners determine the problems scope and nature on which interventions can focus to identify successful interventions in problem solving. Furthermore, the assessment points out the community

people likely to benefit most from the intervention plan and who will not and enable the plan to demonstrate that resources not get wasted through proper allocation. The scholars further suggest assessing community wants has to involve communities at all planning levels and consider everyone who may be affected. Community development planning begins with finding a need or realizing that there is a need.

### 5.2.2 Participatory Project Planning on Natural Resource Management

The study also found that respondents agreed with statements on participatory project planning to a big level. It was also established that lack of information, trust, time, language and cultural barriers, and power imbalances are common factors that may hinder people's participation in project planning on the management of natural resources. Addressing these barriers and creating opportunities for meaningful participation is critical for effective and equitable natural resources management made up part of the factors the respondents found to hinder their engagement in participatory project planning on management of natural resources. The findings agreed with Hamdi and Geothert (2017), who presented the importance of meaningful and active involvement of local communities in projects. Different participation levels were considered including passive participation. The key project stakeholders are involved with an understanding of things that either happened or may happen. There may be little to no feedback from people, and their engagement is measured by people counting, participation in discussions, etc. Interviewing is a method of obtaining answers from participants to questions from external experts. Ideas may be presented out of meeting confinements. The process of consultation tasks the external experts with the responsibility of making decisions, who do not in any way have to consider the opinions of other stakeholders. Collaboration involves assembling various people to engage in analyzing and discussing project goals. The involvement level generally doesn’t lead to major changes to requirements that have already been established. For strong participation, the major stakeholders have the commitment and willingness of initiating a process and participating in its review. The outcome is an agreement on the actions to be taken and the method to be used. Key stakeholders own and manage the process (Wanyera, 2016). The involvement of local people in any project based on given principles of a project forms a new paradigm shift, which continues to gain wide coverage at the global stage as years pass by. Their involvement is key because the project outcomes have an impact on their lives. The wide

coverage and use of participatory planning has further been influenced by contemporary development (Ray, 2015).

### 5.2.3 Participatory Project Implementation on Natural Resource Management

The study further found that respondents largely agreed as shown by a composite mean of 3.83 in that; labor was drawn from the community at a higher level. It was in line with Ohwahwa (2019) assertion that sharing responsibilities and tasks in all phases of a project is important. However, a lack of institutionalization of the idea makes it to remain a wild dream. It is important to device strategies such as MOUs and to encourage implementation committees to champion the participation of communities in projects to ensure that they achieve the sustainability aspect. The community is responsible for the identification of projects where they have major interests in. Most governments aim at improving people's lives. However, corporate organizations and these governments engage in developing communities without having exact knowledge of that the community wants. Hence, the objectives of such projects do not get a fulfillment.

### 5.2.4 Participatory Monitoring and Evaluation on Management of Natural Resource

The study eventually revealed that most participants agreed with the statement of collaborative M&E of management of natural resources. According to a UNDP (1012) research, if there is no good planning, monitoring, and analysis, it is not possible to determine whether the project will be successful. Evaluation can also provide other important data regarding a project's effectiveness, impact and its potential in future. M&E uses collected data in assessment of a program's status at different times and gives a solid foundation for performing a review and update about the program. The needs of donors can be made while good decisions are made from it. PM&E provide development services with the opportunity to better understand the situation on the ground through detailed analysis and analysis of changes and focus on the ideal of improving the lives of the poor. It offers individuals the chance of celebrating success and learning from failure. Participants get motivated as the processes makes them accountable. They are able to know that their opinions are important and always considered. The primary stakeholders of any projects based in a community are the members of the community whose lives are impacted by the project. According to Estrella and Gaventa (2018), they must be involved in PM&E especially in the early project phases. Furthermore, the growing need of cost effectiveness and efficiency in projects calls

for stakeholders that possess skills for best performance (Forss and Carlsson, 2017). Effective planning procedure precedes M&E. PM&E refers to the process where people develop capacity and learn from and are made aware of their visions, social realities and development results. The process of leaning presents them with a conducive environment for change while putting emphasis on various participation levels (low to high) and defining project parameters. M&E forms a negotiation process amongst people having different views of the world, expectations and needs. The political aspect comes in because it addresses themes of social transformation, power and equity. The process is continuously evolving according to project circumstances (Estrella, 2017).

### 5.3 Conclusions

Participatory needs assessment significantly influences natural resource management as by involving local communities in the assessment process, their knowledge and perspectives on the use and management of natural resources can be incorporated into the decision-making process. This can lead to more effective and sustainable resource management practices that have the likelihood of getting support from the local community. Furthermore, participatory needs assessment can increase community awareness and ownership of natural resources, which can lead to increased responsibility and stewardship of these resources. This can result in improved conservation efforts and better outcomes for both the environment and local communities. However, the success of participatory needs assessment in natural resource management depends on various factors such as the level of community engagement, the effectiveness of communication and collaboration among stakeholders, and the availability of resources and capacity for implementation.

The study also concludes that participatory project planning significantly influences natural resource management. Participatory project planning involves active involvement of stakeholders right from the project design phase to implementation. Through the involvement of civil society organizations, local communities and other stakeholders, there is a reflection of the needs and priorities of people thereby creating a project sustainability. Furthermore, participatory project planning can increase community ownership and participation in natural resource management, which can lead to improved conservation efforts and better outcomes for both the environment and local communities. When communities are involved in project planning, they are more likely to feel a sense of responsibility and stewardship over natural resources. They are also more likely to offer support and implement good management

practices. However, the success of participatory project planning in management of natural resources depends on various factors such as the level of community engagement, the effectiveness of communication and collaboration among stakeholders, and the availability of resources and capacity for implementation.

The study further concludes that when local communities get involvement in managing projects, they are more likely to understand and support the goals of the project, and to be committed to its success. This can lead to improved conservation efforts and better outcomes for both the environment and local communities. Furthermore, participatory project implementation can help build capacity and skills among local communities, which can enable them to take a more active role in long-term management of natural resource. This can lead to greater community ownership and responsibility over natural resources, and more sustainable management practices. However, the success of participatory project implementation in natural resource management depends on various factors such as the level of community engagement, the effectiveness of communication and collaboration among stakeholders, and the availability of resources and capacity for implementation. It is important to ensure that local communities have the necessary resources and support to implement natural resource management practices effectively, and that they get empowerment where they are actively involved in making decisions.

Finally, participatory monitoring and evaluation have a significantly influence natural resource management. When local communities are involved in monitoring and evaluating natural resource management projects, they can provide valuable insights into the effectiveness of management practices and their impact on the environment and local communities. This can help identify areas for improvement and inform decision-making for future management practices. Furthermore, PM&E has the capability of building capacity and skills among local communities, which can enable them to take a more active role in long-term management of natural resources. The result is a greater community ownership and responsibility over natural resources, and more sustainable management practices. However, the success of participatory monitoring and evaluation in natural resource management depends on various factors such as the level of community engagement, the effectiveness of communication and collaboration among stakeholders, and the availability of resources and capacity for implementation. It is important to ensure that local communities have the necessary resources and support to monitor and evaluate natural resource management practices effectively, and that they get empowered in taking dynamic responsibility during

decision-making and implementation. Additionally, it is important to use appropriate and standardized monitoring and evaluation tools and methodologies to present validity and reliability of the data collected.

### 5.4 Recommendations

Natural resource management needs to build strong relationships with local communities: Before conducting a needs assessment, it is important to build strong relationships with local communities and stakeholders. This involves building trust and understanding and ensuring that their perspectives and priorities are heard and respected.

Natural resource management needs to develop clear project goals and objectives: to make sure the project objectives and aims show the local communities desires and needs. This can help to ensure that the project is relevant and meaningful to local communities and to develop a realistic project plan: Develop a realistic project plan that reflects the available resources, timelines, and capacity of the local community. This can help in ensuring ahigh level of achievability and implementation of a project.

The natural resource management also needs to build capacity among local communities to enable them to actively participate in a project and in natural resource management more broadly. This can include providing training and education on management practices and supporting the development of institutions tasked with management of natural resources, which are community-based.

The management of these resources also needs to establish a clear M&E plan that enables effective tracking and evaluation of a project. This can help to ensure that the project is achieving its goals and objectives and can help to identify areas for improvement.

### 5.5 Recommendation for Further Studies

The study assessed the participatory development communication's role in natural resource management: a case of Naivasha Wetland Area with attempts to expand existing knowledge. The study achieved these, as it zeroed in on one county namely, Nakuru County. However, the research recommends the need to conduct other related studies in different counties in Kenya including Nairobi, Daadab-Garissa County, Kakuma –Turkana County among others to compare the findings

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## APPENDICES

### APPENDIX I: QUESTIONNAIRE

Kindly provide correct and useful data and fill appropriately as logically guided. (This questionnaire has been provided as a word document that can be filled out in soft copy and returned via e-mail; or printed, filled out and mailed).

---

**Section A: General Information**

1. Gender of the respondent

   a) Male ( ) b) Female ( )

2. Indicate by ticking your age bracket

   a) 24 yrs. and below [ ] b) 25-29 [ ]

   c) 30-34 [ ] d) 35-39 [ ]

   e) 40-44 [ ] f) 45-49 [ ]

   g) 50 and above [ ]

3. Kindly indicate your highest level of educational qualification (tick)

   a) Secondary education [ ] c) Certificate or diploma [ ]
   d) Graduate [ ] e) Postgraduate [ ]

**SECTION B: PARTICIPATORY NEEDS ASSESSMENT**

4. Do you think that participatory needs assessment is being used as a tool that helps de-escalate destruction of natural resources?

   Yes [ ] No [ ]

   Explain your answer

   ……
   ……
   …….

5. Describe the level from typologies of participation best describes the local community participation in needs assessment of natural resources?

……

……

……..

6. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree; Please indicate the extent to which you agree with the following statement on.

| **Statement** | **S.D** | **D** | **N** | **A** | **S.A** |
|---|---|---|---|---|---|
| The community wetland protection committee have final say on matters spring protection | | | | | |
| Community wetland protection committee identify the springs to be protected | | | | | |
| There is a criteria used to identify community wetlands to be protected | | | | | |
| Participatory needs assessment enables clarification of problems and identification of solutions within the community | | | | | |
| I feel that the community is fully involved in wetland project needs assessment | | | | | |

**SECTION C: PARTICIPATORY PROJECT PLANNING**

7. What factors if any hinders your participation in project planning on management of natural resources?

……

……

……

8. What is the role of participatory project planning in the management of natural resources?

……

……

……

9. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree; Please indicate the extent to which you agree with the following statement on.

| **Statement** | **S.D** | **D** | **N** | **A** | **S.A** |
|---|---|---|---|---|---|
| The Community is involved in making decisions on project design | | | | | |
| The ownership and control of the projects lies in the hands of the community | | | | | |
| The community wetland protection committee are trained on spring protection | | | | | |
| There has been empowerment of local disadvantaged groups and integration of local knowledge systems into project design | | | | | |
| Community discusses and agrees on their contribution towards the project | | | | | |

**SECTION D: PARTICIPATORY PROJECT IMPLEMENTATION**

10. From your experience in implementing project aimed at conserving natural resource, do you think that the local communities are given enough space to participate in decision making?

    ……
    ……
    ……

11. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree; Please indicate the extent to which you agree with the following statement on.

| **Statement** | **S.D** | **D** | **N** | **A** | **S.A** |
|---|---|---|---|---|---|
| Local community is involved in decision making during spring protection project implementation | | | | | |
| The local community is involved in procurement of materials and resources for wetland protection project implementation | | | | | |
| Community members provide labor during implementation of | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| wetland protection project | | | | | |
| All wetland implementation activities are shared and agreed with the community | | | | | |
| There is transparency in the way wetland project activities are carried out | | | | | |

12. Describe the roles of participatory communication in project implementation natural resource management?

    ……
    ……
    …….

**SECTION E: PARTICIPATORY MONITORING AND EVALUATION**

13. What are the factors that hinder participatory monitoring and evaluation on natural resource management?

    ……
    ……
    ……..

14. Using a scale of 1-5, where 1= strongly disagree; 2=disagree; 3=Neutral; 4=agree; 5=strongly agree; Please indicate the extent to which you agree with the following statement on

| **Statements** | **S.D** | **D** | **N** | **A** | **S.A** |
|---|---|---|---|---|---|
| Through monitoring and evaluation relevant information is obtained that assist in future planning and fine tuning | | | | | |
| Monitoring and evaluation enables the project to focus better on improving people's lives in identifying and analyzing change | | | | | |
| Monitoring and evaluation gives us an opportunity to celebrate success together and learn from past mistakes | | | | | |
| Through monitoring and evaluation, the community has been able to identify and acquire skills which enable the projects perform to their best | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Through involvement in monitoring and evaluation, the community feels that their views are taken into consideration | | | | | |

15. Describe the recommendations on the best practices on how community members can have full participation on monitoring and evaluation of natural resources.

……

……

…….

**THE END**

**THANK YOU**

## APPENDIX II: INTERVIEW GUIDE

1. How and at what level do you involve local communities in participatory needs assessment on natural resource management?
2. From your experience in implementing project aimed at conserving natural resource, do you think that the local communities are given enough space to participate in decision making?
3. What method do you use to get local community members views and ideas on the natural resource management?
4. What are the roles of participatory communication in natural resource management?
5. What types of platforms are used in communicating natural resource management among local communities?
6. What are the most preferred communication channels among local communities regarding natural resource management?
7. What are the factors that influence the local communities to participate in project implementation and natural resource management discourse?
8. What are the factors that hinder participatory monitoring and evaluation on natural resource management?