INFLUENCE OF PARTICIPATORY DEVELOPMENT ON SUSTAINABILITY OF SPRING PROTECTION PROJECTS IN BOMET CENTRAL SUB-COUNTY,

KENYA.

BY

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DECLARATION

This research project is my own work and has not been presented for a degree to any other university.

Signature..... Date.....

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L50/71940/2014

This research project has been submitted for consideration with my approval as the university supervisor.

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DEDICATION

This research project is dedicated to my parents Paul and Alice Rono.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABREVIATIONS AND ACRONYMS

CAP	Community Action Model
DEAP	District Environment Action Plan
GoK:	Government of Kenya
IFAD:	International Fund for Agricultural Developments
M&E:	Monitoring and Evaluation
PD:	Participatory Development
PM&E:	Participatory Monitoring and Evaluation
SPP	Spring Protection Project
UNDP	United Nations Development Fund
UNICEF	United Nations Children's Fund

ABSTRACT

This research sought to examine the influence of participatory development on the sustainability of spring protection projects in Bomet Central Sub-County. The objectives of the study were to examine the extent to which participatory needs assessment influences sustainability of community spring protection projects, to establish the degree to which participatory project design and planning influences sustainability of spring protection projects, to ascertain the extent to which participatory project implementation influences sustainability of spring protection projects and to establish the degree to which participatory monitoring and evaluation influences sustainability of spring protection projects. The study was conducted in Bomet Central Sub-County, Kenya. The study adopted descriptive research design technique. The target population for the study was 586 households that rely on protected springs as their main source of water. A sample size of 232 heads of households was drawn from the target population through systematic random sampling for the study. The data was collected through questionnaires as the main study instrument. The research instrument was tested for validity and reliability before being taken to the field. The data was analysed using Statistical Package for Social Sciences (SPSS) version 21 to generate frequency distributions and percentages to assist the researcher in answering the research questions. The data was summarized using both descriptive and inferential statistics. Descriptive statistics in form of frequencies, percentages, means and standard deviations were presented in form of tables. Pearson correlation coefficients were established to help the researcher draw various conclusions on the relationship between independent and the dependent variable. Inferential statistics indicated that participatory needs assessment had a very strong positive significant relationship ($r=.928$, $p<0.01$) with spring project sustainability, it also indicated a very strong positive significant relationship ($r=.946$, $p<0.01$) between participatory project planning and design and spring project sustainability. Inferential statistics further portrayed very strong positive significant relationship ($r=.948$, $p<0.01$) between participatory project implementation and project sustainability and finally it indicated a very strong positive significant relationship ($r=.964$, $p<0.01$) between participatory project monitoring and evaluation and project sustainability. The study therefore concluded participatory involvement of the local community in all the stages of the spring protection project is important in ensuring sustainability of the spring protection projects. Further the researcher recommended that the government and other stakeholders should seek for community engagement to ensure the continuity of the project in the long run.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Development agencies first used the terms participation and participatory development in the late 1950s; at that time activists and development professionals were advocating for alternatives to failed top-down policies and practice. In the 1970s and early 1980s, a desire by decision-makers to more effectively incorporate the perspectives and priorities of the local people in decision-making, policy development and project implementation led to the emergence of a number of participatory approaches to development. This re-orientation towards greater participation in development by individuals was motivated by the development communities desire to move from an emphasis on top-down, technocratic and economic interventions towards greater attention to bottom-up, community-level interventions (Kanji and Greenwood 2001). Participatory approaches to development quickly evolved throughout the 1980s and into the early 1990s with the introduction of methods such as Rapid Rural Appraisal, Participatory Action Research and, Participatory Rural Appraisal.

Throughout this period, researchers and community organizers sought to improve their understanding of "insider/local knowledge as a balance to the dominance of outsider/western scientific knowledge" (Kanji and Greenwood 2001). By the 1990s, and continuing to the present, participation has become a mainstream, expected component of development. The growing adoption of a participatory approach to development reflects a continuing belief in a bottom-up approach in which participants becoming agents of change and decision-making. Participation is seen as providing a means through which to enable meaningful involvement of the poor and voiceless in the development process, allowing them to exert greater influence and have more control over the decisions and institutions that affect their lives, to mobilize their own capacities, be social actors, rather than passive subjects, manage the resources, make decisions, and control the activities that affect their lives."

The ability of participatory development to fulfill its promise rests in part on the manner in which it is undertaken. Effective participation needs to be undertaken in a manner that is cognizant of: the mode of participation, the participants to be involved, the manner in which they should be involved and the institutional structure within which local people operate. Participation thus involves a shift in power over the process of development away from those who have traditionally defined the nature of the problem and how it may be addressed (governments, outside donors) to the people immediately impacted by the issue. Participatory development involves a transformation of the traditional development approach towards the enhancement of the capabilities of the local people and communities to define and address their own needs and aspirations (Chikati, 2009).

In Japan, Community-Based Disaster Management programs initiated by the government and the international community's including donor agencies failed to be sustainable at local level after completion of project (Mohan, 2008:). The study indicated that the failure of the program was because there was no community consultation and participation in the program. The study pointed out that the common elements of community involvement are partnership, participation, empowerment and ownership by local people. People should own problems, consequences and challenges of any mitigation and preparedness initiative. The study concluded that it is necessary to take people's involvement further into policy and strategy. In South Africa, participatory development has become a central theme in the broad field of social development as a model for addressing and balancing the injustices of the past (Raniga & Simpson, 2002). In Kenya, the Government of Kenya(GoK) has tried to embrace communities to get involved in developing their local areas (GoK, 2006). GoK has embraced participatory development as a strategy to empower disadvantaged communities to take control of their own lives through creating partnerships with donors and local communities. GoK's focus on participation and partnerships is an indication of political goodwill towards the development of human capacity through approaches to development that emphasizes participation.

1.1.1 Spring Protection

A spring is formed when natural pressure forces groundwater above the land surface. This can occur at a distinct point or over a large seepage area. Spring Protection is a widely used technique in

developing countries to provide safe, reliable and relatively inexpensive water supply. The ground is usually an excellent filter for removing bacterial particles and chemical contamination so springs are an ideal source of water supply therefore water from protected springs is safe to drink. Springs are protected to increase spring water yield and reliability, protect the spring from pollution as well as water contamination during water draining by users. It also facilitates improved access to the spring (Cornwall, 2002). In most cases before a spring is protected, locals usually put up with muddy holes with steep slippery banks, where filling containers is extremely difficult, the water is usually contaminated and therefore not safe for drinking. Furthermore, unprotected springs are mostly affected by spring encroachment and water conflict brought by shortage of water.

1.2 Statement of the Problem

Participatory development has been shown to be effective in making physical improvements more sustainable in the long run, particularly where public amenities are concerned for example water and sanitation or public facilities. Akpomuvie (2010) established that projects identified, planned, executed and managed by the community themselves outlived those imposed by a benefactor with little or no community participation. Chikati (2009) indicated that without community buy-in, a project may never get off the ground or will not be accepted once it is completed.

World Bank has been supporting the notion of participatory development for over a decade, arguing that development projects are more sustainable, effective and successful when beneficiaries have a role in the way projects are chosen, planned, implemented, and evaluated (World Bank, 2004). Therefore in order to manage affairs of a community everyone in the community must feel that he/she is involved and partaking in the experience. However, in developing countries particularly, management by expatriates and government officials has led to frequent failure of development projects to meet, or sustain, their objectives. The case is not any different in Bomet Central Sub County. The County government and several donor agencies have invested heavily in protecting springs with the aim of providing safe and clean water to the local community, increasing the water yield and reliability and improving access to the springs but despite the benefits that the protected spring offer the local

community, a number of the springs have been rejected, abandoned or vandalized. The foregoing elicited the undertaking of this study to investigate why the local community is rejecting, abandoning or vandalizing the springs which were meant to enhance their lives.

1.3 Purpose of the Study

The purpose of this study was to determine the influence of participatory development on the sustainability of spring protection projects in Bomet Central Sub-County.

1.4 Objectives of the Study

The study was guided by the following objectives:

i. To examine the extent to which participatory needs assessment influences sustainability of spring protection projects in Bomet Central Sub-County
ii. To establish the degree to which participatory project planning influences sustainability of spring protection projects in Bomet Central Sub-County.
iii. To ascertain the extent to which participatory project implementation influences sustainability of spring protection projects in Bomet Central Sub-County.
iv. To establish the degree to which participatory monitoring and evaluation influences sustainability of spring protection projects in Bomet Central Sub-County.

1.5 Research Questions

The study sought to answer the following Research Questions:

i. To what extent does participatory needs assessment influence sustainability of spring protection projects in Bomet Central Sub-County?
ii. To what degree does participatory project planning influence sustainability of spring protection projects in Bomet Central Sub-County?
iii. To what extent does participatory project implementation influence sustainability of spring protection projects in Bomet Central Sub-County?
iv. To what degree does participatory monitoring and evaluation influence sustainability of spring protection projects in Bomet Central Sub-County?

1.6 Significance of the Study

It is expected that the findings of this study will highlight the possible stages through which holistic involvement of communities in project initiation to completion can be achieved thereby improving the sustainability of community based projects. It is also expected that the findings of the study will provide knowledge on how to involve stakeholders in various project phases and activities. Moreover, the knowledge generated in this study will inform governments (county and national), development agencies, Project Managers and other stakeholders that local communities are always aware of their local development problems, and given facilitation they are able to look for local solutions to their local problems. Lastly, it is hoped that the findings of the study will increase the existing body of knowledge on participatory development.

1.7 Limitation of the Study

The main challenge experienced in this study was the low literacy levels on the part of respondents. The respondents with low literacy levels were assisted by translating the questions to local dialect. The respondents were suspicious of the purpose to as to which the study was being carried out. The respondent's fears were mitigated through assurance that the information provided would be purposely used for the study and would be handled with confidentiality.

1.8 Delimitation of the Study

This study limited itself to the protected springs in Bomet Central Sub-County, in Bomet County of Kenya.The study was also be delimited to the influence of participatory development on the sustainability of spring protection projects in Bomet Central Sub-County.

1.9 Basic Assumptions of the Study

The study assumed that the respondents gave correct and truthful information that the study sought to achieve and that the data collected was a true representation of the target population.

1.10 Definition of Significant Terms Used in the Study

Community: Refers to a social group of any size and whose members reside in a specific locality, share government and often has a common culture and historical heritage

Community participation: Refers to a process by which people are enabled to become actively and genuinely involved in defining the issues of concern to them, in making decisions about factors that affect their lives, in formulating and implementing policies in planning, developing and delivering services and taking action to achieve a change

Donor Agency Refers to an organization that provides financial assistance to developing countries with the aim of reducing poverty and changing lives.

Household All persons living under one roof, the members of a household are related by blood or law, they constitute a family.

Participatory Development: Active involvement of local community in the planning, development, implementation, and evaluation of community development projects, activities, and policies that affect them.

Project Is development interventions, which are designed to achieve certain specific objectives within a budget and within a specific period

Project Sustainability Is the process of maintaining the outcomes, goals and products of a project long after the primary donor funding is withdrawn.

Spring Is a water point that the rural population uses to get water for household use and is shared by the community residing where the spring is found.

Spring Protection: Are activities that are undertaken to ensure that a water resource is conserved for sustainable use.

1.11 Organization of the Study

The study is mainly organized into five chapters. Chapter one deals with the background of the study covering areas such as the problem statement, research questions and objectives, significance of the study, delimitations of the study, limitations to the study, assumptions of the study and operational definition of significant terms.

Chapter two contains a comprehensive literature review encompassing participatory needs assessment and identification, participatory project design and implementation, participatory project implementation and participatory project implementation. This chapter also looks at the theoretical framework or the study and the conceptual framework.

Chapter three gives the methodology adopted for the study which includes research design to be used, the target population, sampling procedure, research instruments, data collection procedures and methods of data analysis and ethical Issues considered in the study

Chapter four contains the presentation and interpretation of findings arising from data analysis using the techniques described in chapter three. Discussions of the findings are also discussed here. These findings are presented in the form of tables accompanied by explanations underneath. Chapter five contains summary of the findings, conclusion and the research recommendations. A section for suggested areas for further studies arising from the study findings and its contribution to the body of knowledge is also included.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The ability of participatory development to fulfill its promise rests in part on the manner in which it is undertaken. Effective participation needs to be undertaken in a manner that is cognizant of: the mode of participation, the participants to be involved, the manner in which they should be involved and the institutional structure within which local people operate. Participation thus involves a shift in power over the process of development away from those who have traditionally defined the nature of the problem and how it may be addressed (governments, outside donors) to the people immediately impacted by the issue. Participatory development involves a transformation of the traditional development approach towards the enhancement of the capabilities of the local people and communities to define and address their own needs and aspirations (Chikati, 2009).

This chapter looks at key concepts and issues building on the influence of participatory development on the sustainability of community spring projects. The section attempts to present a critical review of the available literature on the subject of research by focusing on past reviews and results from other researchers who have carried out their research in the same field of study. The theoretical and conceptual framework models are also presented after the review of literature. The last section gives summary of the study by highlighting the main ideas and issues relating to the study.

2.2 Influence of Participatory Needs assessment on sustainability of Spring Protection Projects

A needs assessment is a systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions or "wants". The discrepancy between the current condition and wanted condition must be measured to appropriately identify the need. The need can be a desire to improve current performance or to correct a deficiency (Kilzik, 2010). According to Fulgham and Shaughessey (2008) needs assessment can be an effective tool to clarify problems and identify appropriate interventions or solutions.

A needs assessment is a part of project planning process, often used for improvement in individuals, projects, organizations, or communities (Gordon, 2004). Lee & Reeves (2009) pointed out that needs assessment is an effective tool to clarify problems and identify appropriate interventions or solutions within a community. They added that by clearly identifying the problem, finite resources can be directed towards developing and implementing a feasible and applicable solution. Needs assessments are only effective when they are ends-focused and provide concrete evidence that can be used to determine which of the possible means-to-the-ends are most effective and efficient for achieving the desired results which is needed in designing a project. Gilbert (1998) suggested that only when we know what people really want can we develop an effective project.

It is important to carry out a needs assessment before planning development work, whether we think we know what the needs are or not (Lee & Reeves, 2009). Gilbert (1998) added that for successful project completion and sustainability of projects, the projects goals and targets must be tied to community needs and expectations. This must however be well communicated to all projects stakeholders. According to Sharma, Lanum & Balcazar (2000) the goals of a needs assessment are to identify the assets of a community and determine potential concerns that it faces. A needs assessment therefore becomes crucial in the initial stages of a project. A needs analysis is focused on identifying the possible barriers to successful program intervention in a community and possibly finding solutions to these challenges.

According to Rossi & Lipsey (2004), community level needs assessment is beneficial and crucial to any planned intervention on behalf of communities facing difficulties with regard to some community issue. They stress that a community level needs assessment will assist the practitioner to determine the nature and scope of a problem at which an intervention might be aimed, with the aim of finding out what possible interventions might be successful in alleviating the problem. They further indicate that community needs assessment will uncover which members of the community are most likely to benefit from a planned intervention and who might not be and it will give direction to planners in terms of where resources need to be allocated for the intervention so that they are not wasted.

Rossi & Lipsey (2004) recommend that Community level needs assessments should include the community at all stages of planning, and should consider all people that might be affected by the planned intervention, including children, the elderly and the mentally ill. Community development project starts with the identification of a need or the realization that there is a need (Mwangi, 2005). This concurs with a study carried out in Nigeria by Maldavuand (2003) which indicated that the Governments should not presume that they know what will benefit the poor better than the poor themselves. Maduagwu (2000) further indicates that projects should be embarked upon because people need them not because contractors are pushing for them. Citizens should clarify their own needs and priorities. Kerote (2007) stated that needs assessment will not only confirm the need for change, but also clarify the scope of the problem at hand and the resource base available.

2.3 Influence of Participatory Project Planning on Sustainability of Spring Protection Projects

Participatory Planning as stated by Olthelen (1999) is the initial step in the definition of a common agenda for development by a local community and an external entity or entities. Over the period, this initial step is expected to evolve for the parties concerned towards a self-sustaining development planning process at the local level. Thomas & Kurian (2003), state that the purpose of participatory planning is to create a platform for learning rather than plunging directly into problem solving. The process is expected to enhance: Identification of the felt needs of the people, Bringing forth consensus, empowerment of local disadvantaged groups and integration of local knowledge systems into project design, It's a two-way learning process between the project team and local people, it seeks for political commitment and support and accountability in local governance.

According to Laura (2000) community participation processes at the planning stage include identification of stakeholders, establishing of systems that allow for engagement with stakeholders by public officials, and development of a wide range of participatory mechanisms. Chambers (2002) highlights the value of engagement with stakeholders by stating that Stakeholders are individuals who belong to various identified 'communities' and whose lives are affected by specific policies and programs, and/or those who have basic rights as citizens to express their views on public issues and actions. If planning is to be effective, then a good plan

should be formulated and made operative with all parties concerned: the people to be assisted, the local public, governmental organizations, private organizations, field organizations/ trade unions. Their participation in the planning process is a prerequisite, for without their active involvement little can be achieved (GTZ, 1997).

Hamdi & Geothert (1997) stressed the need for active and meaningful involvement of community members in activities of their communities. They identified the following levels of participation*:* Passive participation- is the least participatory of the four approaches. Primary stakeholders of a project participate by being informed about what is going to happen or has already happened. People's feedback is minimal or non- existent, and their participation is assessed through methods like head counting and contribution to the discussion (sometimes referred to as participation by information). Participation by consultation- is an extractive process, whereby stakeholders provide answers to questions posed by outside researchers or experts. Input is not limited to meetings but can be provided at different points in time. In the final analysis, however, this consultative process keeps all the decision making power in the hands of external professionals who are under no obligation to incorporate stakeholders' input. Participation by collaboration-forms groups of primary stakeholders to participate in the discussion and analysis of predetermined objectives set by the project. This level of participation does not usually result in dramatic changes in what should be accomplished, which is often already determined. Empowerment participation-is where primary stakeholders are capable and willing to initiate the process and take part in the analysis. This leads to joint decision making about what should be achieved and how. Ownership and control of the process rest in the hands of the primary stakeholders (Hamdi & Geothert, 1997).

Ray (2000) and Rietbergen (2001) labeled participatory planning as the new paradigm in development planning geared towards a general approach that can be defined on a general set of principles, notably the willingness to involve local people in development decisions that will affect their lives. This approach has gained momentum in the field of development planning over the years and continues to do so. Contemporary development scholars such as Chambers (1983,1992,1997), Arnstein (1969), Uphoff (1987), have played a leading role in ensuring that participatory planning approach gains more momentum and credence.

They advocate for people's involvement in all development activities because they believe that the key objectives of any development cannot be fully achieved unless people meaningfully participate in it (Mohammad, 2010).

2.4 Influence of participatory Project Implementation on Sustainability of Spring Protection Projects

Participatory project Implementation is the step where all the proper planned activities are put into action. It entails creating of a customizable framework in conjunction with the local community that helps to set up and manage project implementation stages. Customization of project implementation process framework lets leverage the use of standards, policies and procedures and ensures that beneficiary' expectations and aspirations are properly outlined (Viera & Pena, 1997). When project implementation process is structured, customized and organized, project implementation can start off.

Participatory development involves partaking, sharing and a times owning a project by people. It is also referred to as either a process or a means towards an objective. As a process it denotes individual's involvement in the group activities. As a goal driven concept it encompasses the social interactions which characterize a group as well as their contribution towards a desired end result (Piccotto, 1992). Adams & Rietbergen (1994) and World Bank (1994,1995) defined it as a process through which stakeholders influenced and share control over development initiatives, decisions and resources that affect them.

Chambers (1997) defined participation in development as sharing of tasks and responsibilities in the planning, construction and management of a project However, the practicability of this strategy will be a wild dream if it cannot be institutionalized. Hence, a need for some devices such as engaging in Memorandum of Understanding (MOU) and the implementation committees to help foster people's participation in project execution. It is the involvement of the intended beneficiaries that can help in the sustainability of projects in the community (Umesi, 2005).

The people of the community will identify with the projects they have initiated and may even want their completion with vested interest. It is the aim of the government to improve the

quality of people's life in the community. But the governments and corporate organizations similarly involved in community development without knowing the needs and preferences of the community, the aim of such project(s) is often not realized (Gozie, 2007). They just have to involve the people of the community right from the onset in decision making, implementation, monitoring and evaluation of the benefits of the projects. Authentic engagements of MOU and people's participation are indispensable in order to make the intended beneficiaries self-reliant in the meeting of their basic needs and the making of the process of their project development self-sustainable (Ohwahwa, 2009).

The concept of having a memorandum of understanding (MOU) as an integral part of the execution of projects for stake holding communities has been lauded as a welcome development by those involved in nation building at various levels and as a step in the right direction (Brown, Udensi, Daasi & Igbara, 2013). To take the development paradigm through the MOU framework to a higher level, there is the need for a monitoring mechanism to ensure the realization of the objectives of MOU. T he establishment of MOU and implementation committee is a sinequanon for sustainable project development in various communities in Nigeria. Thus, the implementation committee is to be established in order to serve as a backbone of sorts for MOU article realization during project cycle.

2.5 Influence of Participatory Project Monitoring and Evaluation on Sustainability of Spring Protection Projects

According to Marisil & Joflin (2000) Participatory monitoring and evaluation (PM&E) is part of a wider historical process which has emerged over the last20 years of using participatory research in development. PM&E draws from various participatory research traditions, including participatory action research (PAR) spearheaded by the work of Paolo freire (l972), fals-Borda (l985), and others; participatory learning and action (including Rapid Rural Appraisal (RRA) and later Participatory Rural Appraisal (PRA) drawing on the work of Robert Chambers (l997) and many others; and farming systems research (FSR) or farming participatory research (FPR) developed by Amanor (l990), farrington & Martin (l988) and others.

Monitoring and evaluation can help organizations extract relevant information from past and ongoing activities that can be used as the basis for programmatic fine-tuning, reorientation and

future planning. Without effective planning, monitoring and evaluation, it would be impossible to judge if work is going in the right direction, whether progress and success can be claimed, and how future efforts might be improved (UNDP, 2002). An evaluation also yields other critical information about impact, cost-effectiveness, and future potential. Both monitoring and evaluation make use of information gathered to assess the status of programs at any given time, and serve as a basis for reviewing and revising project plans, making sound decisions, and meeting donor funding requirements.

Participatory monitoring and evaluation provides an opportunity for development projects to focus better on their ultimate goal of improving poor people's lives by broadening involvement in identifying and analyzing change, a clearer picture can be gained of what is really happening on the ground. It allows people to celebrate successes, and learn from failures and for those involved, it can also be an empowering process, since it puts them in charge, helps develop skills, and shows that their views count. Primary stakeholders in community based projects are the local community that will be affected or may be affected by the project. The stakeholders must be involved in the background studies and also in the project Planning, monitoring and evaluation as early as possible (Naliaka, 2011).

Forss & Carlsson (1997) indicated that the growing need for efficiency, cost effective and results mean it is essential that the stakeholders have skills which enable them to perform to their best. The Principles of effective participatory Monitoring & Evaluation rely on monitoring and evaluation being preceded by an effective planning procedure. Participatory M&E is a process of individual and collective learning and capacity development through which people become more aware and conscious of their strengths and weaknesses, their wider social realities, and their visions and perspectives of development outcomes. This learning process creates conditions conducive to change and action and emphasizes varying degrees of participation (from low to high) of different types of stakeholders in initiating, defining the parameters for, and conducting Monitoring & Evaluation.

M&E is also a social process of negotiation between people's different needs, expectations and world views (Estrella, 1997). It is a highly political process which addresses issues of equity, power and social transformation. Monitoring & Evaluation can also be defined as a flexible process, continuously evolving and adapting to the program specific circumstances and needs. M&E of projects or programs that have been developed on an ad-hoc or unsystematic way becomes immensely more complicated and unreliable than building M&E on more stringent or formalized planning.

The growing interest within the international aid community in participatory approach to development programming emanates from lessons learned from past. It was found that participation of the program stakeholders, central level decision makers, local level implementers and communities affected by the program design, implementation, monitoring and evaluation, improves program quality and helps address local development needs. It increases the sense of national and local ownership of program activities and ultimately promotes the likelihood that the program and their activities and their impact would be sustainable (Pasteur & Blauert, 2000)

The breadth and degree of stakeholder participation feasible in M&E activities will depend in part on the kind of participation achieved in the program, or in the case of assessment, in the national and local processes. Nonetheless, M&E activities can be used to open greater participation (Pasteur & Blauert, 2000). The introduction in UNFPA of the result based approach to program management calls for strengthening of partnerships, participation and team work at all levels and stages of the program process. Therefore, effort should be made to move away from the conventional to more participatory approaches to M & E (UNDP, 2002).

In May 2000, an IFAD workshop on impact achievement stated, that participation means more than just beneficiary contribution to project execution, rather that it should encompass all stakeholders and be formalized at all stages of the project cycle. This clearly includes Monitoring & Evaluation systems. So, developing participatory M&E systems means that, once the basics of M&E are understood, participatory M&E is defined and ways are worked out to introduce it (UNICEF, 1990). This is done by providing key stakeholders in this case the local community with the information needed to guide the project strategy towards

achieving the goal and objectives; provide early warning of problematic activities and processes that need corrective action; help empower primary stakeholders by creating opportunities for them to reflect critically on the project's direction and help decide on improvements; build understanding and capacity amongst those involved in the project; motivate and stimulate learning amongst those committed to making the project a success and assess progress and so enable accountability requirements to be met. However, exactly what programs stakeholders are involved in Monitoring & Evaluation varies according to purpose of M&E and general institutional receptiveness to the use of participatory approaches. In each instance, program managers should decide which group of stakeholders should be involved, to what extent and how (UNICEF, 1990)

Broughton & Hampshire (1997) highlighted that for Monitoring & Evaluation system to be able to maximize its potential as a learning mechanism, both its development and use processes need to be of a participatory nature, i.e., they need to involve different stakeholders as well as their diverse concerns. Broadly speaking, any organizational activity involves different actors, who are likely to have diverse interests and stakes with regard to Monitoring & Evaluation systems. For instance, a social organization might expect that using a Monitoring & Evaluation system will create learning that will help improve its ongoing and/or future undertakings, allowing it to improve its relative standing/ competitiveness vis-à-vis donors and increase its ability to secure additional funding to sustain its organizational activities; whilst donors might expect that the setting up of M&E systems within projects or interventions supported by them will allow them to find out whether projects are being implemented according to the terms and conditions agreed and whether their resources are being used to obtain the expected outcomes and impacts.

Local people are increasingly acting as full partners in project initiatives, rather than passive beneficiaries. Most projects aim to strengthen self-reliant development, so seek local participation in project design and implementation and assessment of the findings. If project Monitoring & Evaluation builds on existing communication and learning processes, it can enhance and enrich this budget (Zaki, 2000).

2.6 Sustainability

IFAD (2007-2010) define sustainability as a means providing long-term solutions to community needs that the beneficiaries can maintain after grant funding ends. Here are six steps that can make your project sustainable: Assess community needs-Have local sponsors conduct a thorough assessment to identify a community need that the sponsors can address in a way that fits beneficiaries' values and culture. Involve multiple community partners in the planning process. Use local materials – Purchase equipment and technology from local sources when possible. Be sure that spare parts are readily available. Involve community members in the selection of technology and equipment, and train them to operate, maintain, and repair it on their own. Identify a local funding source – Confirm the existence of a local funding source to support a project's long-term operation, maintenance and repair. Compensate the project's suppliers and vendors appropriately so they will have an incentive to continue providing services. *Provide* training, education, and outreach –By providing training, education, and community outreach you will strengthen beneficiaries' ability to meet project objectives. Confirm that there is a plan in place to transfer knowledge to new beneficiaries. Collaborate with local agencies and organizations to supply needed expertise. Motivate beneficiaries to take ownership-Provide incentives for beneficiaries and project participants to continue their support. Identify individuals willing to lead beneficiaries in sustaining project outcomes. Prepare the community to assume ownership of the project once grant funds are expended. Monitor and evaluate-Develop clear and measurable project objectives, and identify methods for collecting project data. Establish baseline data that can be used to demonstrate significant change for at least three years (IFAD, 2007-2010)

2.7 Theoretical Framework

According to Kombo & Tromp (2006), theoretical framework refers to a collection of interrelated ideas based on theories attempting to clarify why things are the way they are based on theories, introducing new view of their search problem, allowing understanding realm of the problem, helping to conceptualize topic in its entirety and to acknowledge problem from a wider perspective for objectivity. This study will theoretically depend on the Community Action Planning (CAP) model, developed by (Hamdi & Goethert, 1997). Community Action Model (CAP) is an approach that empowers communities to design, implement and manage their own

development programs. Its key characteristic is that it is participatory, community based, problem driven and fast. Community participation is at the core of CAP and its focus is building coalitions and partnerships thus participation occurs when people and organizations are convinced that their interests will be better served in partnerships than without them.

The CAP model will be adopted for the study because it sets a clear guideline on effective community participation in development projects. The model focuses on who participates in a Community based development effort and at what level. Effective development plans must clearly state those who will participate and because inviting every person is difficult to manage so it is always better to design a strategy that will ensure a fair representation of everyone (Arcila, 2008). The central claim of the model is that communities and their groups should be responsible for the initiation, planning, design, implementation and maintenance of development projects in their environments. Community participation serves as a framework which explains that residences of a community must be made to participate in any development project in their environment. As community residents know their problems more than any other outside consultant or government. Therefore getting their input and having them to help decide the design of the project brings a sense of ownership and success of the project (World Bank, 1999-2001).

Hamdi & Goethert (1997) identified stages of participation as follows: *Research Stage* is where the development problem is accurately defined. All relevant stakeholders can be involved in this process. The research around the development problem can include studying previous experiences, individual and community knowledge and attitudes, existing policies and other relevant contextual information related to socio-economic conditions, culture, spirituality and gender. *Design Stage* defines the actual activities. A participatory approach helps to secure the ownership and commitment of the communities involved. Active participation by local citizens and other stakeholders aims to enhance both the quality and relevance of the suggested interventions. *Implementation Stage* is when the planned intervention is implemented. Participation at this stage increases commitment, relevance and sustainability. *Evaluation Stage* participation ensures that the most significant changes are voiced, brought to common attention and assessed. For a meaningful evaluation, indicators and measurements should be defined in a

participatory process at the very beginning of the initiative involving all relevant stakeholders (Hamdi & Goethert, 1997).

2.8 Conceptual framework

According to Mugenda & Mugenda, (2003), conceptual framework involves forming ideas about relationships between variables in the study and showing these relationships diagrammatically. This study will adopt the conceptual framework shown in figure 2.

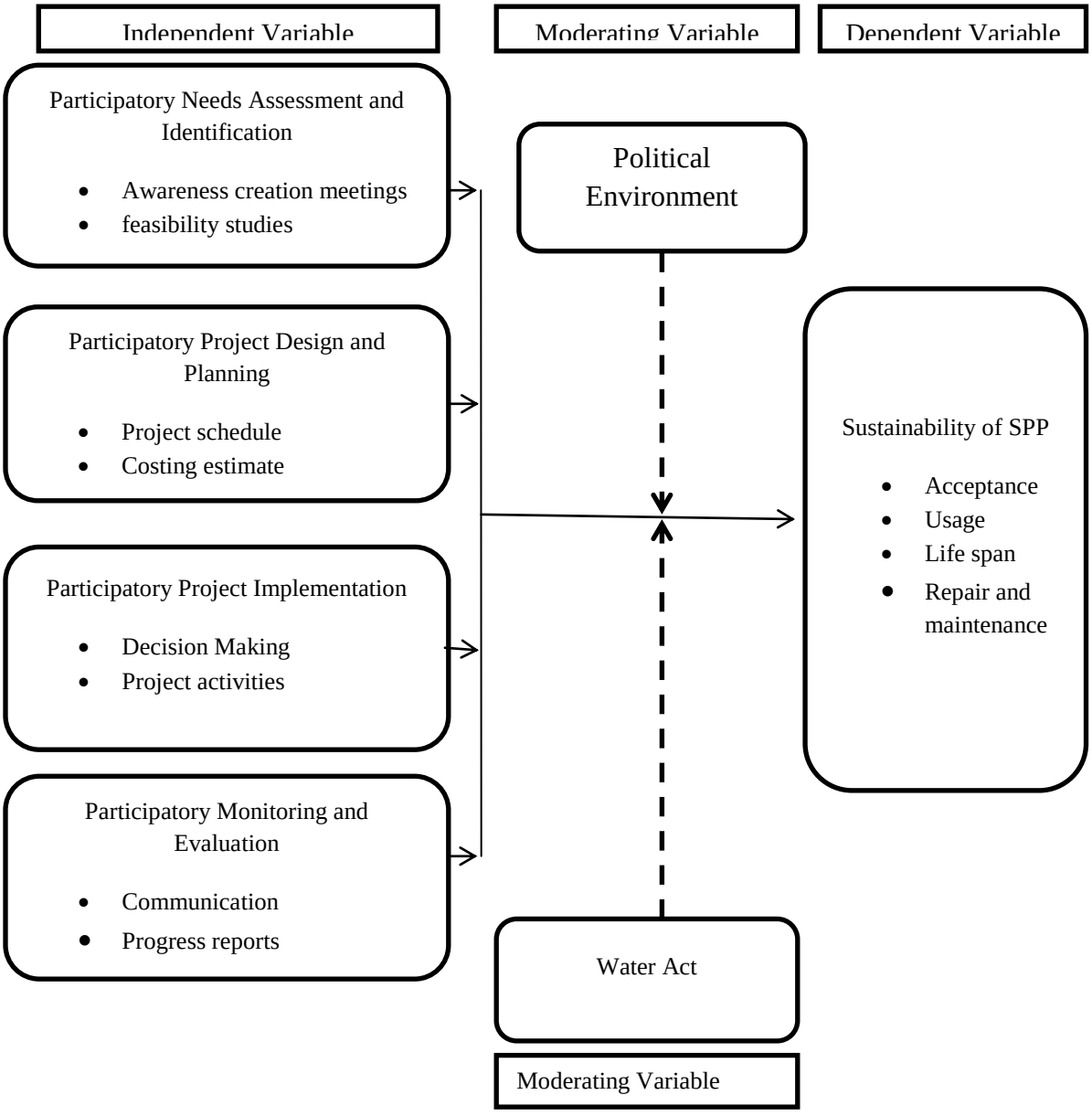

Figure 1.1: Conceptual framework

The four independent variables for the study comprises of community members participation in needs assessment. This happens in situation where their views and opinions are sought regarding which community based projects need to be implemented by an organization working in the community. The second predict or involves the involvement and participation of community members mapping out of the project plan and design. This involves rigorous consultation and involvement of key stakeholders in determining the project lifecycle period, there source needed and mitigation measures to address prior to project commencement. The third predict or involves the activities involved in the implementation of the project. The fourth predictor is the regular and continuous involvement and participation of community members in project monitoring and evaluation process.

All the four independent variables have significant effect on the achieving sustainability of SSP projects forms the main dependent variable. Sustainability of SSP forms the dependent variable however, moderating and intervening variables could interplay on the assumed linear relationship between the two variables although it is assumed that their effect or contributions are kept constant in this study.

2.9 Knowledge Gap

From observations of past studies done in the theoretical literature review, it is very clear that for any project to be sustainable there is need to involve the major stakeholders in the project cycle. It is necessary to involve the beneficiary community right from the initiation, to hand over operation and also in the monitoring and evaluation of the projects. However, there may be gaps in the project cycle as far as community involvement is concerned. Most community members may not have capacity to get really involved in all stages of project cycle. For people to assume responsibility, capacity building is needed right from early stage of project cycle. This study will try to expose the influence of participatory development on sustainability of SPP in Bomet Central Sub-County and the gaps that may be exist, the emerging issues and way forward.

2.10 Summary of Reviewed Literature

This chapter has presented the information related from the topic under study from books, journals, past theses, parliamentary acts online articles and conference presentations. Their view of literature will provide a ground through which the study is compared to what has been done by other researchers in the field of study.

It is important to carry out a needs assessment before planning development work, whether we think we know what the needs are or not (Lee & Reeves, 2009). Gilbert (1998) added that for successful project completion and sustainability of projects, the projects goals and targets must be tied to community needs and expectations. This must however be well communicated to all projects stakeholders. According to Sharma, Lanum & Saurez (2000) the goals of a needs assessment are to identify the assets of a community and determine potential concerns that it faces. A needs assessment therefore becomes crucial in the initial stages of a project. A needs analysis is focused on identifying the possible barriers to successful program intervention in a community and possibly finding solutions to these challenges. For successful needs assessment in the community projects, participation of the local communities should be considered.

According to Laura (2000) community participation processes at the planning stage include identification of stakeholders, establishing of systems that allow for engagement with stakeholders by public officials, and development of a wide range of participatory mechanisms. Chambers (2002) highlights the value of engagement with stakeholders by stating that Stakeholders are individuals who belong to various identified 'communities' and whose lives are affected by specific policies and programs, and/or those who have basic rights as citizens to express their views on public issues and actions. If planning is to be effective, then a good plan should be formulated and made operative with all parties concerned: the people to be assisted, the local public, governmental organizations, private organizations, field organizations/ trade unions. Their participation in the planning process is a prerequisite, for without their active involvement little can be achieved (GTZ, 1997). Thus, this study focused on establishing the influence of participatory development on the sustainability of community spring projects.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives a detailed description of the methods used to carrying out the study. It comprises the research design that was found appropriate for this study followed by the target population from which possible findings from the study were generalized, the sample size and sampling techniques, which gave a representative inference of the population on all major variables. The chapter then identified and described the research instruments that were used in the study, stating their validity and reliability. The section concludes by identifying the methods that were used to analyze the data.

3.2 Research Design

Research Design refers to a plan for collecting and utilizing data so that desired information is obtained with sufficient precision or so that research question can be tested properly (Henon, 1998). This research adopted a descriptive research design. According to Mugenda & Mugenda (2003) a descriptive research determines and reports the way things are and attempts to describe things as possible behavior, attitudes, values and characteristics. Shuttle (2008) asserts that descriptive research design is a scientific method which involves observing and describing the behavior of a subject without influencing it in anyway. This design was found suitable for this study because it presents facts concerning the nature and status of a situation, as it exists at the time of the study. It also brings out relationships and practices that exists, beliefs and processes that are on-going, effects that are being felt or trends that are developing

3.3 Target Population

Target population in statistics is the specific population about which, information is desired (Ngechu, 2004). The target population for the study is 586 households that rely entirely on protected springs as their main source of water in Bomet Central Sub-County.

3.4 Sampling Size and Sampling Procedure

A sample is part of the population that has been procedurally selected to represent the population once the sample has been scientifically taken, the result can be generalized to the entire population. Burns and Groove (2001) refer to sampling as a process of selecting a group of people, events or behavior with which to conduct a study.

3.4.1 Sample size

The purpose of sampling is to secure a representative group (Mugenda, 2008). Burns and Grove (2003), refer to sampling as a process of selecting a group of people, events or behavior with which to conduct a study. The target population for this study comprised of 586 respondents. Sample size determination for heads of households to be selected for the study was based on Krejcie & Morgan (1970) table for sample size determination (Appendix IV). As indicated from this table, a population of 586 respondents corresponds to a sample size of approximately 232. Therefore 232 heads of households were sampled for this study. The determination of sample size was important to the researcher since it brought out credible representation of the population.

3.4.2 Sampling Procedure

The heads of household to participate in the study were selected through systematic random sampling to participate in the study.

3.4.3 Sampling Frame

The sampling frame for this research is depicted on the table 3.2. The exact sample size for each targeted stratum was determined using proportions

Table 3.1: Sampling Frame

Name of Protected Spring	Target population	Sample Size
Ng'omwet Spring	122	48
Chepkoiben Spring	80	32
Mulot Spring	95	38
Tenwek Spring	120	47
Laalet Spring	82	33
Simotwet Spring	87	34
Total	586	232

3.5 Research Instruments

The study adopted questionnaires to give adequate insight into the study. Kothari C.K (2004) states that a questionnaire consists of a number of questions printed and typed in a definite order on a form or set of forms. The questionnaire contained both structured and unstructured questions with 5 sections. The questions were systematic and pre-determined and were presented with exactly the same wording and in the same order to all respondents. Section A of the questionnaire captured questions on demographic characteristics of respondents; Section B had questions on participatory needs assessment. Section C of the questionnaire captured questions on participatory planning, while section D contained questions on participatory implementation. Section E entailed questions on participatory monitoring and evaluation and lastly section F had questions on sustainability.

A Likert scale with the following connotations was used: (1) Strongly Disagree (SD), (2) Disagree (DA), (3) Uncertain (U) (4) Agree (A) and (5) Strongly Agree (SA). The strongly agreed responses were scored at 5 for direct positive responses while those of strongly disagreed responses were scored at 1. Statements in the questionnaire were both affirmative and neutral so as to keep respondents alert while answering them. Each of the sections of the Likert type scale had seven statements.

3.5.1 Pilot Testing of Research Instrument

In conducting the pilot study, the researcher was interested in establishing whether the respondents had understood the questions and thus offered the information required. Mugenda &

Mugenda (2003) argue that conducting a pilot study is important before the main study. The pilot testing was done using 10% of the sample population who were later excluded during data collection stage. This enabled the researcher to conduct reliability tests and familiarize herself with the research environment. This also was important in checking the suitability and the clarity of questions on the instruments designed, relevance of the information being sought, the language used and the content validity of the research instrument.

3.5.2 Validity of Research Instruments

According to Mugenda & Mugenda (2003), Validity is the accuracy and meaningfulness of inferences, which are based on the research results. For a data collection instrument to be considered valid, the content selected and included must be relevant to the need or gap established. The research instruments were tested for validity to ascertain whether they measured the variables under study. According to Borg & Gall (1999), validity of an instrument is improved through expert judgment. As such, the content validity was ascertained by engaging the research supervisor to check and assess the frequency of errors and the accuracy of data expected. The process of validation enabled the researcher to test the suitability of the questions, the adequacy of the instructions provided, the appropriateness of the format and sequence of questions.

3.5.3 Reliability of Research Instruments

Kohl (2005) define reliability as the ability of a test to consistently yield same results when repeated measurements are taken of the same individual under the same conditions. Trial testing of the measuring instruments should be undertaken using a few subjects whose characteristics are similar to those in the sample to ascertain the feasibility of the study (Nkpa, 1997). The reliability of the research questionnaire for this study was determined through test-retest technique. The questionnaire was piloted by taking 10% heads of households in the sample population who were later excluded in the actual data collection process. Reliability coefficient values were computed using Cronbach alpha coefficient method. The results on computation of Cronbach alpha coefficients were as in Table 3.2.

Table 3.2: Cronbach Alpha Coefficient Values

Variable	No Of items	Alpha (α) Value
Participatory needs assessment	7	0.96
Participatory Spring planning and design	7	0.97
Participatory project implementation	7	0.96
Participatory monitoring and evaluation	7	0.96
sustainability	7	0.96

Al the variables had alpha coefficient values greater than 0.7 hence considered reliable.

3.6 Data Collection Procedure

The researcher sought for research permit from National Commission for Science, Technology and Innovation (NACOSTI). Prior to the commencement of data collection, the researcher sent an introductory letter to the identified respondents and request them to participate in the study. Ethical considerations were clearly communicated and adhered to before commencement on the data collection process. The research instruments were clearly communicated to the research assistants in order to gather the required data. Afterwards, 232 questionnaires were administered to heads of households that rely on protected springs as their main source of water. After the data collection, clean up, coding and removal of errors and inconsistencies will be undertaken. The responses were then summarized with percentages, frequency counts and means. Inferences were drawn about a particular population from the responses of the sample population.

3.7 Data Analysis Procedure

According to Polit & Hungler (1997), data analysis means to organize, provide structure and elicit meaning. In this study the questionnaires were adequately checked for credibility and reliability. The primary data collected in this study was coded and tested for completeness and then analyzed using descriptive statistics and inferential statistics and presented using tables Descriptive statistical techniques (frequencies, percentages, means and standard deviation) were employed to analyze field data from questionnaires to assist the interpretation and analysis of data using Statistical Package for Social Sciences (IBM SPSS Version 21).

Inferential statistics, in form of Pearson correlation coefficient were used to check the relationship between participatory development and sustainability spring protection projects in Bomet Central Sub-County.

3.8 Ethical Issues

The ethical concerns in this instance were not only applied to methods and procedures employed but also on the subject matter itself. Respondents' anonymity, confidentiality and privacy were observed during data collection. Permission was sought from Deputy County commissioner to facilitate the collection of data from respondents. The questionnaire was accompanied by a cover letter which described the objectives of the study, and assured the respondents of confidentiality of the information they provided and requested them to be honest in answering the questions. Furthermore, no respondent was coerced into the excise at any level. The study's findings were presented without any manipulation or influence by the researcher in any way.

Table 1.3 Operationalization of Variables

Objective	Indicators	Data Sources	Measurement scale	Tools of Analysis
Extent to which participatory needs assessment impact on sustainability of SPP	• No. of meetings held on awareness creation and attended by community • Community involvement in feasibility studies	Questionnaire	Ordinal Nominal	Means, standard deviations, frequencies and percentages
Degree to which participatory in project design and planning influences sustainability of SPP	• Participation in developing Project Schedule • Community Participation in costing estimate/budget • Community contribution	Questionnaire	Ordinal Nominal	Means, standard deviations ,frequencies and percentages
Extent to which participatory project implementation impact on sustainability of SPP	• Community Participation in Project activities • No. of community involved in sourcing materials	Questionnaire	Ordinal Nominal	Means, standard deviations, frequencies and percentages
Degree to which participatory monitoring and evaluation influences sustainability of SPP	• Involvement in M&E • Communication on project progress	Questionnaire	Ordinal Nominal	Means, standard deviations ,frequencies and percentages
Sustainability of SPP	• Acceptance • Life span • Usage • Contribution to Repair and maintenance	Questionnaire	Ordinal Nominal	Means ,standard deviations, frequencies and percentages

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings from the analysis of the data collected. The findings were in form of both descriptive and inferential statistics. The findings were accompanied by detailed discussions on the various aspects under analysis. Essentially, the presentations of findings were in tandem with the research objectives and the study variables. The study presented the findings and discussions relative to the background information of the respondents. Descriptive statistics were then looked at followed by inferential statistics. The aim of this study was to examine the influence of participatory development on the sustainability of spring protection projects. The objectives of the study were to examine the extent to which participatory needs assessment influences sustainability of spring protection projects in Bomet Central Sub-County, to establish the degree to which participatory project design and planning influences sustainability of spring protection projects, to ascertain the extent to which participatory project implementation influences sustainability of spring protection projects and to establish the degree to which participatory monitoring and evaluation influences sustainability of spring protection projects.

4.2 Response rate

A total of 232 questionnaires were issued to respondents, out of this 226 were filled and returned bringing a response rate of 97.4% which is characterized as an excellent response rate according to Babbie (1990) who suggested that a response rate of 60% is good; 70% is very good.

4.3 The General Characteristics of Respondents

Background information was sought from the respondents with respect to gender, level of formal education and the age bracket. The findings are as discussed below.

4.3.1 Gender of the Respondent

In respect to the gender of the respondents, the following were the findings as in Table 4.1.

Table 4.1: Gender of the respondents

	Frequency	Percent
Male	115	50.9
Female	111	49.1
Total	226	100.0

The table indicated that 50.9% of the respondents were male while 49.1% were female. This indicated an even distribution of the respondents by gender.

4.3.2 Level of Education

The study also sought the educational qualification levels of respondents as presented in Table 4.2.

Table 4.2: Level of education of the respondents

	Frequency	Percent
No Education	20	8.8
Primary	59	26.1
Secondary	109	48.2
Tertiary	38	16.8
Total	226	100.0

The Table indicates that 8.8% of the respondents had no formal education, 26.1% and 48.2% had primary and secondary education respectively while 16.8% had acquired tertiary education. From the table, it was observed that 83% of the respondents had either no education or had just acquired basic education from primary to secondary schools.

Thus it can be said that majority of this respondents lacked specialized training that would be acquired through tertiary education.

4.3.3 Age of the Respondents

The age of the respondents was sought and the findings of the analysis as presented in Table 4.3.

Table 4.3: Age of the respondents

	Frequency	Percent	Cumulative Percent
Below 20	1	.4	.4
20-25	1	.4	.9
26-30	1	.4	1.3
31-35	25	11.1	12.4
36-40	111	49.1	61.5
above 40	87	38.5	100.0
Total	226	100.0	

The Table indicated that about 60% of the respondents were between the age of 30 and 40 years of age. About 30% of the respondents were above 40 years old while slightly above 1% were below 30 years.

4.4 Descriptive statistics

The study sought to establish the means and standard deviations of the responses to give the descriptive statistics of the variables. The results were presented with respect of every study variable and are discussed in this section as below.

4.4.1 Participatory Needs Assessment

In regard to participatory needs assessment, the study sought to establish the views of the respondents as to the indicators of participatory needs assessment. The mean and standard deviation of the responses were established. The findings for the analysis are as indicated in the Table 4.4.

Table 4.4: Participatory Needs Assessment

	N	Min	Max	Mean	Std. Dev
1. I feel that the community is fully involved in spring project needs assessment	226	1	5	2.34	1.491
2. I have attended spring protection awareness creation meetings	226	1	5	2.52	1.193
3. There is a community spring protection committee comprising local community	225	1	5	2.54	1.336
4. Community spring protection committee have final say on matters of spring protection	226	1	5	2.28	1.369
5. Community spring protection committee identify the springs to be protected	226	1	5	2.53	1.317
6. There is a criteria used to identify community springs to be protected	226	1	5	2.52	1.293
7. Participatory needs assessment allows clarification of problems and identification of solutions within the community	226	1	5	2.41	1.357
Valid N (list wise)	225				

The Table indicated that on average, respondents disagreed with the aspects of participatory needs assessment. The responses recorded an average mean of 2 (Disagree) in all the statements. As such the study concluded that the responses indicated that the respondents were not involved in the needs assessment during the initiation of the community projects. The respondents indicated greater disagreement in their responses as they recorded a standard deviation greater than 1 in all the statements. This indicated that the responses were varying greatly from each other thus recording greater standard deviations.

4.4.2 Participatory Spring Planning and Design

The study sought to establish the respondents' views as regards to participatory spring planning and design. The means and standard deviations of the responses were established from the collected data. The findings for the analysis were as indicated in the Table 4.5.

Table 4.5: Participatory Spring Planning and Design

	N	Min	Max	Mean	Std. Dev
1. Community is involved in making decisions on project design	226	1	5	2.35	1.456
2. Community makes decisions on project scale	225	1	5	2.51	1.347
3. Community discusses and agrees on their contribution towards the project	226	1	5	2.57	1.372
4. We make decisions on project usage/access rules	226	1	5	2.50	1.341
5. Ownership and control of the projects lies in the hands of the community	226	1	5	2.42	1.410
6. Community spring protection committee are trained on spring protection	226	1	5	2.45	1.330
7. There has been empowerment of local disadvantaged groups and integration of local knowledge systems into project design	226	1	5	2.48	1.351
Valid N (list wise)	225				

The Table indicated that the respondents disagreed with the aspects of participatory spring planning and design recording a mean of approximately 2 (disagree). As such the researcher observed that the community was not involved in the spring planning and design. The respondents were not in agreement in their responses and as such recorded standard deviations greater than 1 in their responses. All the responses had standard deviation greater than 1.3 indicating very weak cohesiveness in the responses.

4.4.3 Participatory Project Implementation

The study further sought to establish the views of the respondents as regards to participatory project implementation. As such the means and standard deviations of the responses were established to help in drawing conclusions as regards to this matter. The findings for the analysis were as presented in Table 4.6.

Table 4.6: Participatory Project Implementation

	N	Min	Max	Mean	Std. Dev
1. Local community is involved in decision making during spring protection project implementation	226	1	5	2.31	1.452
2. Local community is involved in procurement of materials and resources for spring protection project implementation	226	1	5	2.56	1.343
3. Community members provide labor during implementation of spring protection project.	225	1	5	2.52	1.411
4. I know of spring project activities that the community members are involved in	226	1	5	2.45	1.376
5. All spring implementation activities are shared and agreed upon with the community	226	1	5	2.54	1.458
6. There is transparency in the way project activities are carried out	226	1	5	2.49	1.390
7. I am impressed in the way spring projects are implemented in my location	225	1	5	2.56	1.447
Valid N (list wise)	224				

The Table showed that the respondents disagreed with the aspects of participatory project implementation recording an average mean of 2 (Disagree) in their responses. This indicated that the community was not involved in the project implementation process. Further, the respondents portrayed weak cohesion in their responses as regards to the statements recording standard deviations greater than 1.3 in all the statements.

4.4.4 Participatory Monitoring and Evaluation

The study further established the level of involvement of the community in project monitoring and evaluation process. The mean and standard deviations of the responses were established and the findings of the analysis as in Table 4.7.

Table 4.7: Participatory Monitoring and Evaluation

	N	Min	Max	Mean	Std. Dev.
1. Community members are involved in monitoring of spring protection projects	226	1	5	2.38	1.441
2. Through monitoring and evaluation relevant information is obtained that assist in future planning and fine tuning	226	1	5	2.54	1.269
3. Monitoring and evaluation enables the project to focus better on improving peoples lives in identifying and analyzing change	226	1	5	2.55	1.376
4. I am updated on the progress of spring protection projects aimed at improving the socio-economic well being of people in my location	226	1	5	2.30	1.398
5. Monitoring and evaluation gives us an opportunity to celebrate success together and learn from past mistakes	226	1	5	2.45	1.323
6. Through monitoring and evaluation the community has been able to identify and acquire skills which enable the projects perform to their best	226	1	5	2.54	1.320
7. The community is offered sufficient training in preparation for takeover of the running of the projects after the financiers withdraw	226	1	5	2.46	1.383
Valid N (list wise)	226				

The Table indicated that the respondents disagreed with the aspects of participatory monitoring and evaluation recording means of approximately 2 (Disagree) in their responses. This indicated that the community was also not involved in the project monitoring and evaluation. Greater variations in respondents' responses were observed with all of them recording standard deviations greater than 1.2. This indicated that there was weak cohesion in the responses.

4.4.5 Sustainability

Further, the study sought to establish the views of the respondents as regards sustainability of the spring projects in their community.

The means and standard deviations of the responses were established to help draw some deductions on this aspect. The findings for the analysis were as shown in Table 4.8.

Table 4.8: spring protection project sustainability

	N	Min	Max	Mean	Std. Dev.
1. Spring protection projects in the location meet the aims and aspirations of the people	226	1	5	2.46	1.421
2. We have established local sources of funding to succeed the expiry of grant funds	226	1	5	2.48	1.310
3. The local community's suggestions on improving the spring projects are considered	226	1	5	2.52	1.341
4. Through education and community outreach, the beneficiaries ability to meet project objectives is strengthened	225	1	5	2.48	1.327
5. The local community contribute towards repairs and maintenance of protected springs	226	1	5	2.41	1.424
6. There are well raid down plans to transfer the spring projects to the community after the donor period expires	226	1	5	2.51	1.300
7. The community is offered sufficient training in preparation for takeover of the running of the projects after the financiers withdraw	226	1	5	2.44	1.296
Valid N (list wise)	225				

The respondents disagreed with the aspects of spring project sustainability in the community recording an average mean of approximately 2 (Disagree) in all their responses. This showed that the spring projects experienced challenges in trying to be sustained. The findings further showed that the respondents showed greater variations in their responses recording standard deviations greater than 1.2.

4.5 Test of relationships among variables

In this case data collected was analyzed with the view of establishing the underlying relationships between the various independent variables and the dependent variable. The analysis enabled the study to draw pertinent inferences or conclusions regarding participatory needs assessment, participatory spring planning and design, participatory project implementation, participatory monitoring and evaluation and project sustainability.

All the responses were on a likert scale and thus could viably be consolidated into a composite score of their means in order to infer in their relationships. The analysis was carried out by the use of Pearson product moment Correlation Coefficient.

4.5.1 Effect of Participatory Need Assessment on Spring Protection Project Sustainability

The study sought to establish the relationship between participatory needs assessment and spring project sustainability. As such, all the aspects of participatory needs assessment were computed into composite means as well as those aspects relating to sustainability. Pearson Product Moment Correlation Coefficient was established for the two variables. The findings for the analysis are as presented in Table 4.9.

Table 4.9: Participatory needs assessment and spring protection sustainability

		Participatory Needs Assessment	Sustainability
Participatory Needs Assessment	Pearson Correlation	1	.928**
	Sig. (2-tailed)		.000
	N	226	226
Sustainability	Pearson Correlation	.928**	1
	Sig. (2-tailed)	.000	
	N	226	226

**. Correlation is significant at the 0.01 level (2-tailed).

The Table indicated that participatory needs assessment had a very strong positive significant relationship ($r = .928$, $p<0.01$) with spring project sustainability. As such, a direct relationship between participatory needs assessment and sustainability existed. Thus, to enhance sustainability of spring protection projects in this area, participatory needs assessment should be enhanced. This finding asserts the importance of participation in need assessment in as far as project sustainability and resonates well with the arguments by Gordon (2004) who states that a needs assessment is very crucial while starting projects as it aids in improvement of projects, organizations and communities.

Further needs assessment is an effective tool to clarify problems and identify appropriate interventions or solutions within a community. Gilbert (1998) suggested that only when we know what people really want can we develop an effective and sustainable project. He further added that for successful project completion and sustainability of projects, the projects goals and targets must be tied to community needs and expectations.

4.5.2 Influence of Participatory Planning on Spring Protection Project Sustainability

The study further sought to establish the influence of participatory spring planning on the sustainability of spring protection project. Therefore, aspects of participatory spring planning were transformed into a composite mean and compared with those of project sustainability. Pearson correlation coefficient was established for the two variables to show the relationship between the two. The findings for the analysis were as represented in the Table 4.10.

Table 4.10: Participatory Spring Planning and Spring Project Sustainability

		Participatory Spring Planning	Sustainability
Participatory Spring Planning	Pearson Correlation	1	.946**
	Sig. (2-tailed)		.000
	N	226	226
Sustainability	Pearson Correlation	.946**	1
	Sig. (2-tailed)	.000	
	N	226	226

**. Correlation is significant at the 0.01 level (2-tailed).

The findings indicated a very strong positive significant relationship ($r = .946$, $p<0.01$) between participatory spring planning and sustainability. Thus, spring protection project sustainability is influenced by participatory spring planning to a greater extent. Thus, to enhance spring project sustainability, participatory spring planning should be enhanced.

The findings were consistent with McGee (2002) who argued that not only would participatory approaches assist project sustainability but that participation would make projects more efficient and effective. Davidson (2005) ascertains that the cornerstone of community-based development initiatives is the active involvement of members of a defined community in at least some aspects of project design and implementation. The findings are in line with GTZ (1997) who observed that participation of all stakeholders in planning process is a prerequisite for without their active involvement little can be achieved. Additionally, the respondents denied involvement in the implementation process of the spring project.

4.5.3 Effect of Participatory Project Implementation on Spring Protection Project Sustainability

The study further sought to establish the relationship between participatory project implementation on spring protection project sustainability within the locality. The composite mean of all the aspects of participatory project implementation was computed and compared with the composite mean of sustainability aspects. Pearson correlation coefficient was established to show the relationship between the two variables. The findings for the analysis were as indicated in Table 4.11.

Table 4.11: participatory project implementation and spring protection sustainability

		Participatory Project Implementation	Sustainability
Participatory Project Implementation	Pearson Correlation	1	.948**
	Sig. (2-tailed)		.000
	N	226	226
Sustainability	Pearson Correlation	.948**	1
	Sig. (2-tailed)	.000	
	N	226	226

**. Correlation is significant at the 0.01 level (2-tailed).

The Table indicated that there is a very strong positive significant relationship ($r = .948$, $p < 0.01$) between participatory project implementation and project sustainability. As such a direct relationship is exhibited between the two. Thus, participatory project implementation significantly influences project sustainability. Therefore, to enhance project sustainability, it is important to improve on participatory project implementation. This is supported by studies done by Bhatnagar & Williams (1992), who found a positive relationship between participation in the implementation and the sustainability of the project. A study by Kleemeier (2000) showed that projects with participatory approaches are more sustainable than projects with little or no participation.

4.5.4 Effect of Participatory Monitoring and Evaluation on Spring Protection Project Sustainability

The study finally sought to establish the relationship between participatory monitoring and evaluation and spring protection project sustainability. As such, the composite mean for the participatory monitoring and evaluation aspects was computed and compared this with composite mean for project sustainability. Pearson correlation coefficient was computed for the two variables to show the relationship between the two. The findings for the analysis were as presented in Table 4.12.

Table 4.12: Participatory Monitoring and Evaluation and Spring Protection Project Sustainability

		Participatory Monitoring And Evaluation	Sustainability
Participatory Monitoring And Evaluation	Pearson Correlation	1	.964**
	Sig. (2-tailed)		.000
	N	226	226
Sustainability	Pearson Correlation	.964**	1
	Sig. (2-tailed)	.000	
	N	226	226

**. Correlation is significant at the 0.01 level (2-tailed).

The Table showed a very strong positive significant relationship ($r = .964$, $p < 0.01$) between participatory monitoring and evaluation and spring protection project sustainability. This indicated a direct relationship between the two thus showing that participatory monitoring and evaluation influences project sustainability. The study observed that project sustainability thus would depend greatly on how participatory monitoring and evaluation is implemented in the community. The findings are in tandem with Pasteur and Blauert (2000) who asserted that participatory monitoring and evaluation increases the sense of national and local ownership of program activities and ultimately promotes the likelihood that the program and their activities and their impact would be sustainable.

The findings also supported Broughton & Hampshire (1997) who pointed out that for monitoring and evaluation system to be able to maximize its potential as a learning mechanism, both its development and use processes need to be of a participatory nature meaning that they need to involve different stakeholders as well as the diverse concerns.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the major findings of the study, discussion of findings, conclusions, recommendations, suggestions for further study and contribution of the study findings to existing body of knowledge. The study sought to establish the influence of participatory development on the sustainability of community spring projects in Bomet Central Sub-County.

5.2 Summary of Findings

The study involved four independent variables which included participatory needs assessment, participatory spring project planning and design, participatory project implementation and participatory monitoring and evaluation. The dependent variable for the study was the sustainability of spring protection projects. A total of 232 questionnaires were issued to respondents, out of this 226 were filled and returned bringing a response rate of 97.4%. 50.9% of the respondents were male while 49.1% were female. This indicated an even distribution of the respondents by gender. The study provided a summary of the findings in tandem with the research objective.

5.2.1 Participatory Needs Assessment and Spring Protection Project Sustainability

Descriptive statistics showed that the respondents disagreed with all the aspects of participatory needs assessment giving a mean of approximately 2 (Disagree) in their responses. This meant that the community didn't feel involved in spring project needs assessment. They did not have an opportunity to attend spring protection awareness meetings. According to Gilbert (1998) for successful project completion and sustainability of projects, the projects goals and targets must be tied to community needs and expectations. As such the community goals were not factored in the undertaking of the spring protection projects.

The respondents showed greater disparities in their responses giving standard deviations greater than 1 in their responses. Inferential statistics indicated that participatory needs assessment had a very strong positive significant relationship ($r=.928$, $p<0.01$) with spring project sustainability. As such, the success and sustainability of the spring project is highly influenced by the level of participation of the community. This goes to affirm the assertion by Maduagwu (2000) who said that projects should be embarked upon because people need them not because contractors are pushing for them. Citizens should clarify their own needs and priorities. Maldavuand (2003) further indicated that the Governments should not presume that they know what will benefit the poor better than the poor themselves.

5.2.2 Participatory Spring Planning and Spring Protection Project Sustainability

The respondents further denied being involved in the spring planning and design. They disagreed with all the aspects of participatory spring planning and design indicating means of approximately 2 (disagree). As such the community was not consulted in making decisions on spring planning and design. Community was not engaged in any discussion to contribute towards the project. Hence the local community was not empowered through integration of their knowledge system into the project design. Inferential statistics indicated a very strong positive significant relationship ($r =.946$, $p<0.01$) between participatory project planning and design and spring project sustainability. This indicated that, community participation in planning and design greatly influence the sustainability of the spring projects. These findings are in tandem with the findings of GTZ, (1997) who observed that participation of all stakeholders in planning process is a prerequisite for without their active involvement, little can be achieved.

5.2.3 Participatory Implementation and Spring Protection Project Sustainability

All the respondents disagreed with the aspects of participatory project implementation giving means of approximately 2 (Disagree). This was an indication of lack of involvement in the implementation process. The respondents further indicated disparities in their responses recording standard deviations greater than 1.3. Inferential statistics portrayed very strong positive significant relationship ($r=.948$, $p<0.01$) between participatory project implementation and project sustainability.

This implies that participatory project implementation is important in the sustainability of the project. Gozie (2007) asserts that governments and corporate organizations involved in community development without knowing the needs and preferences of the community, the aim of such project(s) is often not realized. They just have to involve the people of the community right from the onset in decision making, implementation, monitoring and evaluation of the benefits of the projects. As such participation of the community in the implementation process is very important for the success and sustainability of these projects.

5.2.4 Participatory Monitoring and Evaluation and Spring Protection Project Sustainability

Descriptive statistics indicated that the respondents disagreed with all the aspects of participatory monitoring and evaluation having means of 2 (Disagree). They disagreed that community members are involved in monitoring of spring protection projects. They also disagreed that they are updated on the progress of spring protection projects aimed at improving the socio well being of the people in their location. As such, the community did not feel involved at all in monitoring and evaluation of the projects. Greater disparities were observed with the responses registering standard deviations greater than 1.2. Inferential statistics indicated very strong positive significant relationship ($r=.964$, $p<0.01$) between participatory project monitoring and evaluation and project sustainability. This showed that participation of all stakeholders in monitoring and evaluation process is a prerequisite in the sustainability of the spring projects. This is in agreement with Broughton and Hampshire (1997) who highlighted that for Monitoring & Evaluation system to be able to maximize its potential as a learning mechanism, both its development and use processes need to be of a participatory nature, i.e., they need to involve different stakeholders as well as their diverse concerns.

5.2.5 Spring Protection Project Sustainability

Descriptive statistics indicated that the respondents were in disagreement with all the aspects of sustainability recording means approximately close to 2 (Disagree). The respondents disagreed that spring protection projects meet the aims and aspirations of the people, that they

have established local sources of funding to succeed the expiry of the grant funds and that the suggestions of the local communities are considered. Further they disagreed that the local community contributes towards repairs and maintenance of protected springs, that there are well raid out plans to transfer the spring projects to the community after the donor period expires and that the community is offered sufficient training in preparation for takeover of the running of the projects after the financiers withdraw.

5.3 Conclusions

From the summary of findings, pertinent conclusions concerning the matter under the study were drawn. First and foremost, the study concluded that participatory involvement of the local community in all the stages of the spring protection project is important in ensuring sustainability of the projects. This is based on the inferential statistics that gave a very strong positive and significant relationships between participation in the project cycle and spring project sustainability. Further, the study concluded that failure to involve the local community would result to the failure of the projects. This is in tandem with GTZ, (1997) who observed that participation of all stakeholders in planning process is a prerequisite for without their active involvement, little can be achieved.

5.4 Recommendations

Based on the findings of the study, it was recommended that the government and donor agencies should engage the local communities in the identification and processes of the undertaken projects. This will serve to ensure that the projects do not face eminent collapse after the withdrawal of the sponsorship. As such the project will remain to benefit the community longer. The government should also conduct civic education to sensitize the community on the need for active participation in the community projects. This will enhance the level of community participation in the projects and add to the level of sustainability of

these projects in the community. The government should further offer training services to empower the communities on the handling of these projects so that they can be employed to work in these projects. As such, the face of the community will be reflected in the project and thus elicit further participation of the community.

5.5 Suggestions for Further Studies

On the basis of the findings, the study recommended that future studies should focus on the community attitude towards government initiated projects. This will serve to dig deeper into the reason behind the low level of engagement of the community in the spring protection projects in this locality. Further research should also focus on other factors that affect sustainability of the spring protection projects apart from community participation in the project. This will shed light on other measures that need to be put in place to ensure the sustainability of this community projects. Finally, this research should be conducted in other parts of the country to enable generalization and authentication of the research findings across the country.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Florence Chelangat Rono,

University of Nairobi,

Department of Extra Mural Studies,

Nakuru.

Dear Respondent,

RE: **INFLUENCE OF PARTICIPATORY DEVELOPMENT ON SUSTAINABILITY SPRING PROTECTION PROJECTS.**

I am a postgraduate student at the University of Nairobi, undertaking undertaking a research project on the influence of participatory development on the sustainability of spring protection projects in Bomet Central Sub-County.

You have been selected to participate in this study. The information collected will be treated with outmost confidentiality and it will be used for educational research only. Your participation in the study will be highly appreciated. Thank you in advance.

Yours Sincerely,

Florence Chelangat Rono

L50/71940/2014.

APPENDIX II: QUESTIONNAIRE

This questionnaire is designed to gather research information regarding the influence of participatory development on sustainability of spring protection projects. The questionnaire has six sections. For each section, kindly respond to all items using a tick [ ] or filling in the blanks where appropriate.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

Respondent's Particulars

a) Name (Optional)……..

b) What is your gender

Male	Female

c) What is your level of formal education?

No formal Education	**Primary**	**Secondary**	**Tertiary**

d) Specify your age bracket

Below 20	**20-25**	**26-30**	**31-35**	**36-40**	**40 and above**

SECTION B: PARTICIPATORY NEEDS ASSESSMENTS

2.1 The following are some of activities that are important in Needs Assessment of Community spring protection projects; to what extent do you agree with the following statements? Use the scale below to respond.

(1) Strongly disagree (SD), (2) disagree (D), (3) uncertain (U) (4) agree (A) and (5) Strongly agree (SA).

	Factor	**1**	**2**	**3**	**4**	**5**
1	I feel that the community is fully involved in spring project needs					

	assessment					
2	I have attended spring protection awareness creation meetings					
3	There is a community spring protection committee selected by the local community					
4	The community spring protection committee have final say on matters spring protection					
5	Community spring protection committee identify the springs to be protected					
6	There is a criteria used to identify community springs to be protected					
7	Participatory needs assessment enables clarification of problems and identification of solutions within the community.					

SECTION C: PARTICIPATORY SPRING PLANNINNG AND DESIGN

3.1 The following are some of activities that are important in planning of Community spring protection projects; indicate the extent to which your community members participate in various activities on the scale one to five:

(1) Strongly Disagree (SD), (2) Disagree (D), (3) uncertain (U) (4) Agree (A) and (5) Strongly Agree (SA).

	Factor	**1**	**2**	**3**	**4**	**5**
1	The Community is involved in making decisions on project design					
2	Community makes decisions on project scale (length, capacity)					
3	Community discusses and agrees on their contribution towards the project					
4	We make decisions on project usage/access rules					
5	The ownership and control of the projects lies in the hands of the community					
6	The community spring protection committee are trained on spring protection					
7	There has been empowerment of local disadvantaged groups and integration of local knowledge systems into project design.					

SECTION D: PARTICIPATORY PROJECT IMPLEMENTATION

4.1 Specify to what extent you agree with the following project implementation statements

(1) Strongly Disagree (SD), (2) Disagree (D), (3) uncertain (U) (4) Agree (A) and (5) Strongly Agree (SA).

	Factor	**1**	**2**	**3**	**4**	**5**
1	Local community is involved in decision making during spring protection project implementation					
2	The local community is involved in procurement of materials and resources for spring protection project implementation					
3	Community members provide labor during implementation of spring protection project?					
4	I know of spring project activities that the community members are involved in					
5	All spring implementation activities are shared and agreed with the community					
6	There is transparency in the way project activities are carried out					
7	I am impressed in the way springs projects are implemented in my location					

SECTION E: PARTICIPATORY MONITORING AND EVALUATION

5.1 Specify to what extent you agree with the following statements

(1) Strongly Disagree (SD), (2) Disagree (D), (3) uncertain (U) (4) Agree (A) and (5) Strongly Agree (SA).

	Factor	**1**	**2**	**3**	**4**	**5**
1	Community members are involved in monitoring of spring protection projects					
2	Through monitoring and evaluation relevant information is obtained that assist in future planning and fine tuning					
3	Monitoring and evaluation enables the project to focus better on improving peoples lives in identifying and analyzing change					
4	I am updated on the progress of spring protection projects aimed at					

	improving the socio-economic well being of people in your location					
5	Monitoring and evaluation gives us an opportunity to celebrate success together and learn from past mistakes					
6	Through monitoring and evaluation, the community has been able to identify and acquire skills which enable the projects perform to their best					
7	Through involvement in monitoring and evaluation, the community feels that their views are taken into consideration					

Section F: Spring Project Sustainability

6.1 Specify to what extent you agree with the following statements using the following scale.
(1) Strongly Disagree (SD), (2) Disagree (D), (3) Uncertain (U) (4) Agree (A) and (5) Strongly Agree (SA).

	Factor	**1**	**2**	**3**	**4**	**5**
1	Spring protection projects in the location meet the aims and aspirations of the people					
2	We have established local sources of funding to succeed the expiry of grant funds					
3	The local community's suggestions on improving the spring projects are considered					
4	Through education and community outreach, the beneficiaries ability to meet project objectives is strengthened					
5	The local community contribute towards repairs and maintenance of protected springs					
6	There are well raid plans to transfer the spring projects to the community after the donor period expires					
7	The community is offered sufficient training in preparation for takeover of the running of the projects after the financiers withdraw					

Thank you for your Participation

APPENDIX III: RESEARCH PERMIT

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date: 23rd June, 2015

NACOSTI/P/15/1433/6279

Florence Chelangat Rono
University of Nairobi
P.O Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Influence of participatory development on sustainability of community spring projects in Bomet Central Sub-County,"*** I am pleased to inform you that you have been authorized to undertake research in **Bomet County** for a period ending **6th November, 2015.**

You are advised to report to **the County Commissioner and the County Director of Education, Bomet County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

SAID HUSSEIN
FOR: DIRECTOR-GENERAL/CEO

Copy to

The County Commissioner
Bomet County.

The County Director of Education
Bomet County.

APPENDIX V: MORGAN AND KREJCIE TABLE

Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Source: Krejcie & Morgan, 1970