

Analysis of the Ways in which Community Participation Influence Sustainability of Government Funded Water Projects in Semi Arid Areas: A Case Study of Nzambani Area in Kitui County in Kenya

Dennis Kiprotich

Msc in Development studies student, Jomo Kenyatta University of Agriculture and Technology, Social Sciences and Humanities.
Email:dkiprotich44@yahoo.com

Lawrence Njoroge

(Professor in Development studies)
Jomo Kenyatta University of Agriculture and Technology, Social Sciences and Humanities Department

DOI Link: <http://dx.doi.org/10.6007/IJARBSS/v4-i5/856>

Published Date: 19 May 2014

Abstract

The purpose of this study was to analyze the ways in which community participation do influence sustainability of government funded water projects in Nzambani area which is a semi arid area in Kitui county in Kenya. The design used was mixed method design and the sampling technique was stratified sampling since four areas in Nzambani namely; Katoteni, Kwa Mai, Kavalula and Kyambenzi were analyzed. The sample size used was 185 respondents of whom 170 were the local community members who filled the questionnaire whereas 15 were members of water management committee in the area who were interviewed. The study revealed out that participation influence sustainability in the following discussed ways. First is that it promotes community contributions as indicated by 84.1% of the respondents .Secondly, is through effective representation of men and women as shown by 70% of the respondents. Decision making is also another way in which sustainability is influenced as a result of participation as indicated by 64.7% of the respondents. Furthermore, the results from the interview also affirmed that sustainability is also possible through the above ways. The study recommended that there is need for governments and other actors dealing with water projects in semi arid areas to continue creating a conducive environment through which community participation will be fostered so that sustainability can be assured.

Key words: Community participation, sustainability, water projects, contributions, decision making, representation

1.0 Introduction

1.1 Background of the study

Sustainability as pointed out by Sugden (2003) has been one of the most used and abused words in the development vocabulary. Sustainability as understood is heavily attributed to the U.N. World Commission on Environment and Development report of 1987 means being in a position to meet the needs of the present generations without compromising the ability of future generations to meet their own needs. In addition to this, when projects continue to produce a continuous flow of intended outputs, benefits or services throughout a long period of time as designed, then that is seen as sustainability. (Kaliba and Norman, 2004)

Koffi Annan's statement "Water for People, Water for Life" as captured by (UNESCO 2003) shows high importance of water in improving the human condition as well as the environmental conditions of landscapes increasingly dominated by humanity. According to UNDP Report (2006), people need water as surely as they need oxygen: without it life could not exist

Today, some 1.1 billion people in developing countries have inadequate access to water. The idea of water as a human right reflects these underlying concerns. Water is a fundamental human right and thus safeguarding human right to water is an end in itself and a means for giving substance to the wider rights in the Universal Declaration of Human Rights and other legally binding instruments Such as the right to life, to education, to health care and to enough housing as documented by UNDP Report (2006). This explains why the Millennium Development Goals provide a benchmark for measuring progress in enhancing human's right to water resource (UNDP, 2006).

In Africa there is lack of access to safe supply of water as indicated by 51% of the people in these countries (Adams, 1994) .This is supported by World Bank report (2004) which shows that at least 44% of the population in sub-Saharan Africa representing 320 million people does not have access to clean reliable water supplies. Those without access to safe water lives in rural areas and especially ASALs where the consequent poverty and ill health disproportionately affect women and children. (DFID) (2001). To avert this situation, various development agencies; governments and non-government agencies initiate several water projects in marginalized areas especially in arid and semi arid lands (ASALS).

In Kenya water scarcity is still a major challenge that still faces the ASALs. Many inhabitants have been having problems in accessing safe water for their day to day life (KNDPM, 2004). In Kenya ASALs areas form 80% of the country's land mass and is occupied by 25% of the country's population. The biggest areas that constitute the ASALs in Kenya include areas of northern and eastern regions of Kenya. (Government of Kenya, 2004).

Every year, many a lot of money is invested by national governments in project implementation, however, even though there is ever increasing efforts to tackle the problem; many still fail to maintain the flow of expected benefits over their intended lifetimes.

The determinant factors for the sustainability of water projects include among others community participation. However, its influence on sustainability of water projects has not been well envisaged by many governments and often ignored yet this has the potential of increasing the sustainability of water projects (Gebrehiwot, 2006), Bland (2008), Nikkah and Redzman (2009), Ijjaz (2006). Due to this limited understanding, most of water projects have

failed since if this could be taken into account then the issue of community participation could be enhanced because of its significant influence on sustainability of water projects.

This then formed the basis of this study where the researcher was interested in looking at the influence of this factor (community participation) towards sustainability of water projects. Nzambani location is an area in Kitui County. The water projects in the area includes: Katoteni water project, Kwa Mai water project, Kyambezi water project and Kavalula water projects.

1.2 Objective

The main objective of this study was to analyze the ways in which community participation influence sustainability of government funded water projects in Nzambani area.

1.3 Research question

In what ways in does community participation influence sustainability of government water projects in Nzambani area?

2.0 LITERATURE REVIEW

2.1 Community participation

The idea that communities should be actively involved in the provision of water supply has become widely recognized as critical to the long-term sustainability of any water supply system (Narayan 1995; Wijk-Sijbesma 2001, and Garande and Dagg; 2005). The primacy of community participation has become a central idea within contemporary development theory and practice (World Bank 1996; Rietbergen- McCracken and Narayan 1998; Kumar 2002).

Community participation has been identified as a primary determinant of project sustainability and its relationship to project effectiveness has been estimated both qualitatively (Lund 1990; Lombardo 1998) and quantitatively (Narayan 1995; Mayoux 2005). Participation by community members in the identification, design, implementation and especially management stages can be understood in terms of the need and motivation of the community, as well as an indicator of community structure and cohesion.

Mulwa (2003) echoes that community development initiatives fail because of the lack of true participation of the communities in them. Mulwa (2003) suggest genuine participation practice which will not only seek to involve the beneficiary communities in project design and implementation but more importantly the process which seek to link people's felt needs with the project goals and objectives. This will go in a long way in ensuring local ownership and the sustainability of project benefits long after their implementation. According to Mulwa "active participation in community development essentially involves components such as needs assessment, prioritization of own needs (Making informed choices), action planning, implementation, monitoring, evaluation and sharing of benefits and loss".

Sara and Katz (1998) notes that community participation creates an enabling environment for sustainability by allowing users, as a group to select the level of services for which they are willing to pay, to guide key investment and management decisions, and also to make choices and commit resources in support of these choices.

Several authors like Narayan, 1995; Yacoob and Walker, 1991; Common, Warner and Yohalem, 1990; and Wright, 1997 points out the importance of community participation in local projects that are initiated by various development agencies. Community participation creates a platform for the communities to make decision regarding projects; it enhances their control of projects, facilitates community contribution, representation, creates a sense of

responsibility of communities in their projects, gives them authority over their initiatives and enhances informed choice of projects which are all critical in enhancing sustainability of projects.

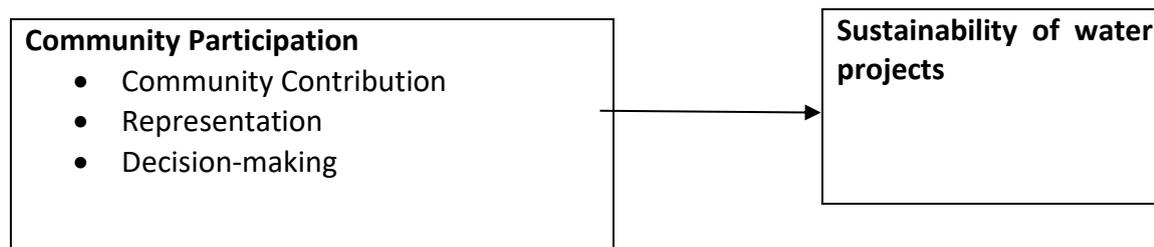
According to Nikkhah and Redzuan (2009), it is impossible to achieve community development without participation and involvement of the community in particular projects. They emphasize on participation as a means as well as an end. Participation as an end ensures people is directly involved in the project and they can take the control of decision that affects their lives.

Yacoob and Walker (1991) indicate that perceptions on community participation have changed dramatically over the years. In the past community participation was largely confined to labor and other contributions by communities during project construction. This has changed and community participation also involves capabilities and willingness of communities to take charge, influence and determine the nature of project during its life cycle to ensure long lasting impacts. According to Dungumaro and Madulu (2003), the level of involvement of communities in water projects is still low in most developing countries.

2.2 Conceptual Framework

Independent variable

Dependent Variable



3.0 METHODOLOGY

The researcher used mixed method research design as a design as popularized by Creswell (2009). The reason was that this design allowed the use of qualitative and quantitative approaches in analyzing data and thus provided an in-depth understanding of the phenomena being investigated. The target population for this research was beneficiaries of water projects who consisted of local community members and water management committees Nzambani area. The sample size used was 170 local community members who filled the questionnaires and 15 water management committees who were interviewed.

Stratified sampling technique was used to ensure that all the key areas where water projects were located were adequately represented in the study. Questionnaires were used to collect information and were closed ended. In addition to the questionnaire, structured interviews were also used because it allowed for face-to-face contact with the respondents thus enabling provision of in-depth data which is in line with (Lindlof and Taylor, 2002) and (Mugenda and Mugenda, 2009). SPSS tool was used in analysis of data. The data was analyzed quantitatively and qualitatively and descriptive statistics will be used to analyze, present and interpret data. The

3.1 Operational definition of variables

Objective To examine the ways in which community participation influence sustainability of water projects in Nzambani

Variable community participation

Indicators-community participation, representation and Decision making

Measurement Nominal

Data collection instrument: Questionnaire and interview guide

Source of data community members and water management committees

4.0 FINDINGS OF THE STUDY

Of the 170 respondents who filled the questionnaire, 143 respondents who were the majority represented by 84.1% participated in the projects initiated in their areas. Only 27 respondents who were the least did not participate at all in the projects implemented in there area. Those respondents who participated in identification were 17; those who participated in planning were 33. Majority of the respondents participated in implementation and all stages as indicated by 46 and 47 respondents respectively.

Table 4.1 whether you made decisions as a result of participation

	Frequency	Percent
Yes	110	64.7
No	60	35.3
Total	170	100

From the table it is evident that majority of respondents indicated that they were able to make decisions as a result of their participation as shown by a frequency of 110 with a percentage of 64.7. Those who said no were 60 in number representing 35.5 percent.

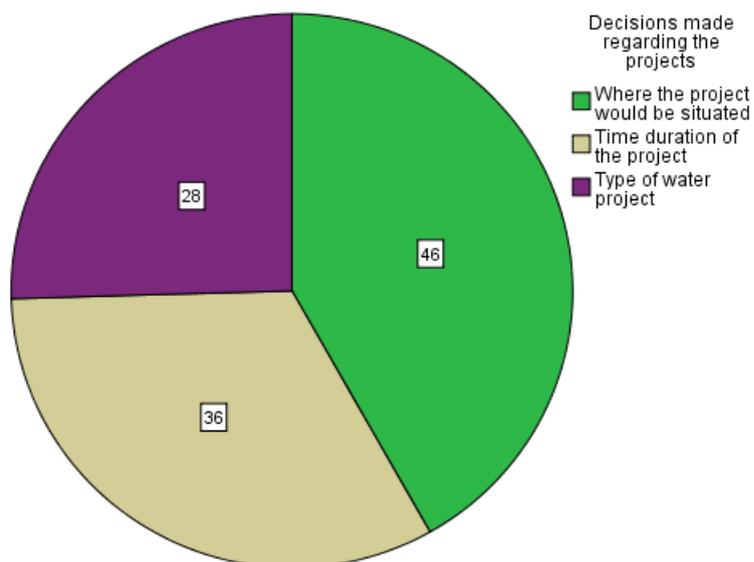


Figure 4.1 Decisions made by respondents regarding the project.

From the figure majority of the respondents made decisions regarding the suite of the project as shown by a frequency of 46 whereas only 28 respondents being the least suggested that they made decisions on type of water project.

Table 4.2 Rating of decisions made

	Poor	Very poor	Good	Very good	Excellent	
Rating of participation in relation site of water project	4	1	28	14	1	
Rating of participation in relation to time duration of project	1	1	26	7	0	
Rating of participation in relation type of water project	1	2	18	6	0	
Total	6	4	72	27	1	110

All respondents who participated in making decisions regarding the project indicated that they never made any decisions regarding cost of the project and sources of finances as this were already determined. Majority of those who participated in making decisions regarding the site of water project rated their participation as good, 14 rated their participation very good. Those who rated their participation as poor were 4 and only 1 respondent rated participation as poor and 1 excellent.

In relation to time duration of the project 26 respondents rated their participation as good, 7 rated it very good while 1 respondent rated participation as poor and another very poor. No respondent indicated participation in decision making in relation to time duration of the project.

In relation to decision on type of water project, 18 respondents representing the majority rated their participation as good, 6 rated very good whereas 2 rated their participation as very poor. Only 1 respondent rated participation as poor while none rated it as excellent.

From this data, it is clear that majority of the respondents irrespective of the decisions made in relation to the project rated their participation as good whereas only 1 respondent rated participation as excellent only when it came to site of the project

Table 4.3 Whether you were able to make contributions as a result of participation

	Frequency	Percent
Yes	143	84.1
No	27	15.9
Total	170	100

The table shows that 143 respondents representing 84.1 percent who were the majority indicated that they made contributions regarding the water project in the area. 27 as represented by 15.9 percent did not make any contributions. Those who said no did not participate at all in the project implemented in their area even offering their labour.

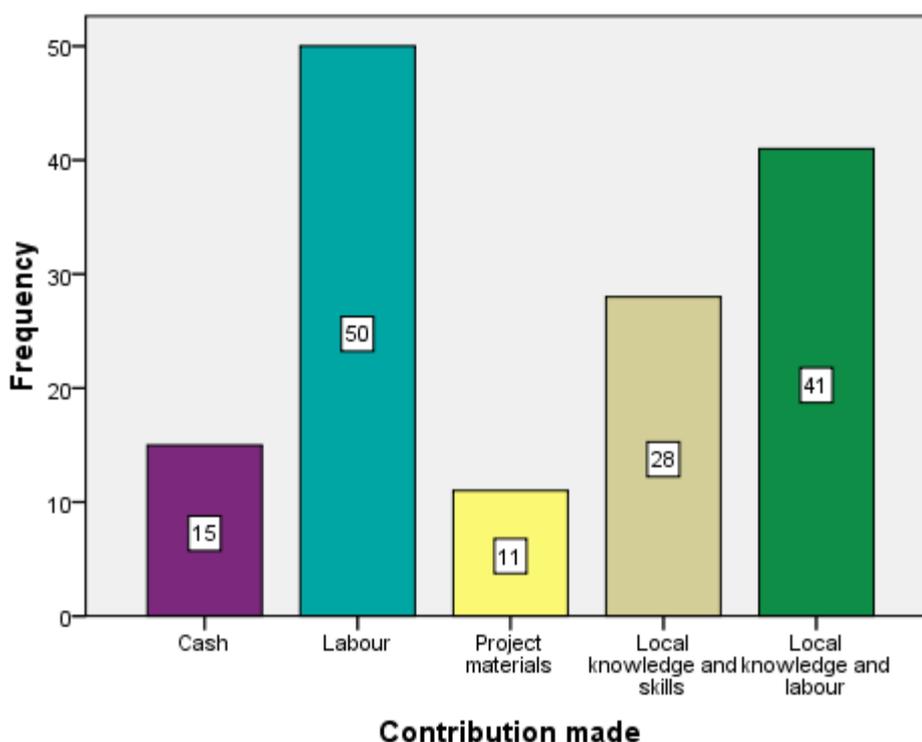


Figure 4.3. Contribution made

From the figure above it clearly indicates that majority of the respondents contributed labour to the project as shown by 50 respondents followed by 41 respondents who had contributed local knowledge and labour. The least contributions to the project were cash and materials as indicated by 15 and 11 respondents respectively

Table 4.4 Rating of contributions to the project

	Poor	Very poor	Good	Very good	Excellent
Rating of contribution of cash to project	12	4	8	2	0
Rating of contribution of labour to project	16	4	13	3	0
Rating of contribution of project materials.	1	1	8	1	0
Rating of contribution of local knowledge and skills	2	1	13	7	0
Rating of contribution of labour and local knowledge	3	1	17	16	10
Total	34	11	59	29	10

143
 Majority of the respondents who indicated their contribution in terms of cash rated their contribution as poor as shown by a frequency of 12, those who rated their contribution as very poor were 4. only 8 and 2 respondents rated their participation as good and very good respectively. In relation to labour 16 said it was poor while 4 said it was very poor. Those who

said their contribution was good and very good respectively were 13 and 3. None rated labour as excellent.

In relation to contribution to project materials 1 respondent said the contribution was poor, another said it was very poor, 8 said it was good whereas only one individual said it was very good. None rated contribution of project materials as excellent. 13 respondents representing the majority indicated that their contribution of local knowledge and skills regarding their project was good whereas only one individual rated contribution as very poor. In relation to labour and local skills 17 rated contribution as good followed by 16 who said it was very good whereas 1 rated it as very poor. 10 respondents rated their contribution of labour and local knowledge as excellent.

The data therefore shows that majority of the respondents contributed labour to the project as shown by 50 respondents followed by contribution of labour and local knowledge as indicated by 41 respondents. The least contributions made in the project were in the form of project materials and cash as indicated by a frequency of 11 and 15 respectively. Furthermore, it is evident that the rating of contributions to the projects in respect to the above was good as shown by a frequency of 59 whereas the least was 11 with a rating of very poor.

Table 4.5 whether men and women adequately represented

	Frequency	Percent
Yes	119	70
No	51	30
Total	170	100

70 percent indicating 119 respondents shows that the representation of men and women in water project were adequate. 51 respondents felt that there was no adequate representation of men and women in the project.

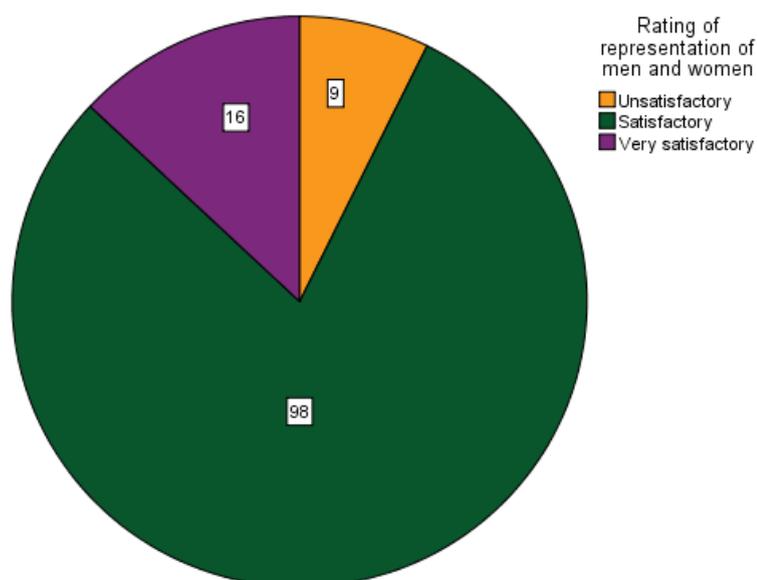


Figure 4.5 Rating of representation of men and women

Figure above indicates that majority of the respondents rated the representation of men and women in project as satisfactory, 16 rated it as very satisfactory while only 9 representing the least respondents felt that representation of men and women in the project were not adequate

157 respondents shown by 92.4 indicated that participation influence sustainability of water projects. Only 13 respondents representing 7.6 percent of the total respondents did not think that participation influence sustainability of water projects. Sustainability through participation was possible through contribution of local materials e.g. cash, satisfactory representation of all community members, increased involvement in decision making.

The interviewed water management committees agreed that people participated in most stages of the project though largely at the implementation stage. They also pointed out that their participation was good in most of the stages that were involved in. However some members noted that the participation of the locals was poor since they did not like the idea of being involved in the project in which they were not actively involved. According to the management committees, the locals were able to make decisions regarding the site of the project, time duration and the type of water project.

5.0 SUMMARY OF MAJOR FINDINGS

In relation to the ways in which community participation influence sustainability of water projects in Nzambani, The study revealed out that participation influence sustainability in the following discussed ways. First is that it promotes community contributions as indicated by 84.1% of the respondents which is in line with the contributions made by (UNICEF, 1999). The other way in which sustainability is influenced is through effective representation of men and women as shown by 70% of the respondents. Decision making is also another way in which sustainability is influence as a result of participation as indicated by 64.7% of the respondents which are in line with what Wright (1997) argued. Water management committees also asserted that decision making influence sustainability of water projects.

6.0 RECOMMENDATION

1. There is need for the government and actors dealing with water projects in semi arid areas to active involvement of the beneficiaries effectively in all the stages of the project not only just at the implementation stage. This will even make it better for sustainability of water projects since community members will be able to make informed choices, contribute positively to the project among other ways. This therefore will create a conducive environment for participation of all the potential beneficiaries

REFERENCES

- Adams W. M. et al., (1994). *Indigenous Farmer-Managed Irrigation in Sonjo*, Tanzania. The Geographical Journal
- Binder D (2008). *Sustainability of Water Service Delivery in Rural Environment: Past Approaches and the Way Forward*. Emerging Markets Group, Ltd.

- Brooks C. P. J., (1996). *Getting the Private Sector Involved in Water-What to Do in the Poorest of Countries?* Public Policy of Private Sector. Washington D.C.: The World Bank.
- DFID (2001). *Addressing the water crisis: Healthier and more productive lives for poor people.* Department for International Development, London.
- Dungumaro E. Madulu N (2003). *Public participation in integrated water resources Experience.* Water International, 18 (1993) 225 – 232.
- Frankfort-Nachmias and David Nachmias (1996). *Research Methods in Social Sciences.* 5th edition. St. Martin's Press Inc. Great Britain.
- Gelar Staya Budhi (2008). *Escalating People's Participation in Rural Development through GO-NGO Collaboration.* Vol.26. No 1 July 2008: 58-70.
- IFAD (2009). *Sustainability of Rural Development Projects: Best Practices and Lessons Learned by IFAD.* Asia.
- Klotz-Young, H. (2012). *The 'green' pillar of sustainability.* SDM, 42(4), 14. Retrieved from <http://search.proquest.com/docview/993892085?accountid=35812> .Learned by IFAD. Asia.
- Manyan H., Offat I. and Kamuzungu T. (2009) .*Access to safe drinking water by rural communities in Zimbabwe: A case of Mundenda village in Mutasa district of Manica land province in Journal of Sustainable Development in Africa* Vol. 11, No.1, 2009). Pennsylvania: Clarion University of Pennsylvania.
- Morrisette, S., & Schraeder, M. (2010). *Leadership development approaches: The Journal for Quality and Participation,* 32(4), 32-24. Spring and summer 2013 Volume 11, Number 1
- Mugenda O. and Mugenda A., (1999). *Research Methods; Quantitative and Qualitative Approaches.* Nairobi, Africa Center for Technology Studies.
- Narayan, D. (1995).*Participatory evaluation: tools for managing change in water and Natural Resource Perspectives.* Overseas Development Institute, London.
- Nikkhah H. A. and Redzuan M (2009). *Participation as a Medium of Empowerment in Community Development.* European Journal of Social Sciences – Volume 11, Number 1 (2009).
- Republic of Kenya (2004). National Policy on Disaster Management, Nairobi, Kenya.
- Rono P. K. And Aboud A. A (2003). *The role of popular participation and community work ethic in rural development: the case of Nandi District, Kenya.* Journal Of Social Development In Africa Vol 18 (2).
- UNICEF (1999) Water Hand Book: Water, Environment and Sanitation Technical Guidelines Series - No. 2.

United Nation Economic and Social Council, Economic Commission for Africa: *Third meeting of the*

Committee on Human Development and Civil Society, 2005, Addis Ababa, Ethiopia.

Wijk-Sijbesma, C. Van (1995). *Gender in Community and Water Supply, Sanitation and Water Resource*

Protection: A Guide to Methods and Techniques. The Hague: IRC International Water and Sanitation

Centre