European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.9, No.17, 2017

Factors Influencing Effective Community Participation in Water Projects: A Survey of Water Mission Funded Projects in West Pokot County-Kenya

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Abstract
The purpose of the study was to investigate the factors influencing effective community participation on water project. The study was guided by The following objective; to establish the effect of socio-economic factors on effective community participation The study was guided by community participation theory. The study employed a descriptive survey research design. The target population for the study included management committee and the local community members.The sample size for the study comprised of 164 community members and eighteen management committee members. The study used stratified random sampling technique and purposive sampling. Data was collected using semi-structured questionnaires and interview schedule. Data was analyzed using Statistical Package for Social Sciences. It is assumed that the findings of the study would significantly contribute towards rural development by acting as a benchmark for identifying loopholes and corrective measures at policy level on water projects to achieve the Millennium Development Goal of provision of safe and clean water to all by the year 2030. The study findings indicated that socio-economic factors influenced effective community participation of funded water projects in West Pokot.The study findings showed that a significant number of the respondents 57.8 percent agreed thatlanguage barrier during project discussion forums hindered effective community participation, 63.8 percent agreed that nomadism among the Pokots affected effective community participation, 61.8 percent agreed that education level of the community members determined the level of community participation, 74.4 percent agreed that there was proper and effective community leadership that promoted community participation, 71.0 percent agreed that majority of the active community members were economically challenged and 85.8 percent agreed that water project had positively transformed health, water and sanitation practices in the region while 81.8 percent agreed that the level of community awareness on the importance of water projects influenced effective community participation. Results from testing the hypothesis indicated that p-value of 0.000and the null hypothesis was rejected. Pearson Correlation coefficient (r-value) is 0.544, which represented a positive but average relationship between socio-economic factors and effective community participation. Therefore, the study concluded that socio-economic factors had a significant effect on effective community participation in water funded projects in West Pokot.The study found out socio-economic
Keywords: Community Participation, Socio-economic factors.

1.0 Introduction

Water is a natural resource that is necessary for sustenance of life, ecological systems and a key resource to social and economic development. Governments, Non-governmental organizations, local and international organizations from all over the world have implemented water projects to promote safe rural water supply and sanitation over the years. However, in most project areas there is lack of sustainability of these water infrastructures and water supply systems as most of the communities don't own the projects (Harvey and Reed, 2007).

Recent figures of operational failure rates from different African countries range from 30 to 60% (Blackman, 2003). In Kenya, it's a common phenomenon to observe non-functional water systems just a few years after implementation e.g. lack of adequate protection such as fencing of waterpans, vandalism of solar pumping systems for boreholes, non-operational shallow well hand pumps and wind mills. The main issue in water supply in developing countries is gauging the willingness of community members to manage their water sources and infrastructures through contribution of time and resources. Contribution of more time and resources to the protection, operation and maintenance of rural water supply is a key action towards achieving sustainability of water supply infrastructures.

According to Harvey and Reed (2007) community involvement strongly influences the sustainability of projects. Community members' contribution might take the form of labour, money, material, equipment, participation in decision making, and expression of demand for water, selection of the technology and project site, and selection of management structures within the community. In Chile, the most basic reforms in water institutions have occurred as part of the political changes during the 1980s when the new Constitution of 1980

and the Water Code of 1981 were adopted. The major driving force for these initial reforms was the ideological orientation of the military government of the 1980s. In recent years, however, fiscal and macroeconomic necessities are adding more pressures for reforms within water sector.The institutional changes in the water sector of Sri Lanka are not as extensive and substantive as in the other countries of our sample. But still the reform experience of this country provides interesting insights and lessons on the theory and practice of water institutional reforms.

Project approaches to development remain a vitalinstrument by development agencies to reach and assistpoor communities in the developing world. Developmentinterventions in the past have tended to focus onresource and knowledge transfer to beneficiarycommunities through the 'top-down' approach (FAO,2001). Several decades of development funding havedemonstrated the failures of the 'top-down' approach toreach and benefit the rural poor. This realization has led to the adoption of the'bottom-up' approach to development. However, despitethe recent upsurge in the 'bottom-up' approach todevelopment, project beneficiaries are still not fullyparticipating in the identification, planning, implementationand monitoring and evaluation of projects that aremeant to improve their lot (Blackman, 2003).

Even whenan element of 'participation' is built into projects, it is alltoo often largely in terms of local investment of labor andnot in real decision-making. Beneficiary communities areonly informed after plans have been made and that this isdone through formal meetings where the officers justifytheir plans but modification is not considered (APO,2002). Limited community participation in the implementationand management of projects means that theprojects have few chances of sustainability. Lack of reliable data on effective communityparticipation in development projects constitutes a majorconstraint to rural development practitioners such aspolicy-makers, planners and managers. This frequentlyleads to incorrect assessment of the development needsof rural people hence, making it difficult for governmentsand development agencies to properly measure progressachieved by development projects in improving livelihoodsof rural communities (Karki, 2001).This often leads to poor performance of the projects and eventual failure. Recognizing the central role ofcommunities in the project cycle, it is important for projectdonors/sponsors.

Africa has been found to have the lowest total water supply coverage compared to other continents in the world. In Africa and other developing countries national and regional governments, local and international NGOs and other concerned organizations invest large sums every year for the implementation of rural water supply projects (Blackman, 2003). Despite the continuous efforts of community based water project in ensuring access to clean drinking water for all the commodity is still not enough for the ever-growing human population. Most of the water projects fail to achieve the intended objective of providing communities with safe water soon after the funders close the project. In order to make the investment in water supplies more effective, failure rates of these systems should be reduced.

In Africa, there is increasing demand for greater inclusion in local decision making, especially in water management. However, few countries have the appropriate institutions and mechanisms in place to ensure more effective local participation. Community water supply systems such as hand-pumps, water points and piped water points are considered as the most viable systems for peri-urban water supply. Data from Rural Water Supply Network (RWSN) shows that in a sample of 20 sub-Saharan countries the average for non-functionality rate is 36% (Kilasi, 2014).

In Kenya, Water is critical to the socio-economic development of the people. This is because of its importance to all sectors of the economy, but especially agriculture (which uses over 80% of the developed water resources)(Matiza-Chiuta, Johnson and Hirji, 2002). Kenya is classified at a water scarce category of 647m3 per capita against the global benchmark of 1000m3, an opportune time to implement this Strategy. It is estimated that 41 per cent of the Kenyan population lives without access to safe drinking water, relying on unprotected wells, springs or informal water providers. Sixty-nine per cent of the total populations do not have access to basic sanitation. Kenya's population is projected to grow for the next few decades. Given these realities, Kenya will also need to tackle issues related to water crisis (WHO/UNICEF, 2010).

The water resources management system was changed from administrative basis to catchment basis in line with the principles of IWRM (GOK, 2015).

In Kenya, Boru (2012) conducted a study on determinants of community ownership of water projects in Kenya, a case of central division, Isiolo County. The study revealed that community involvement in site selection for water facilities, provision of labour, locally available materials, cash contribution, and selection of the management type influences community ownership of water projects. The study also concluded that there is a significant and inverse relationship between distance from the water source and ownership of water projects. The far the water points from the community the higher the likelihood that the facility will not be used or taken care of. The established that technology used, ease of operation and maintenance, cost, availability of spare parts influences community ownership of water projects. Boru recommends further studies to be done in other parts of Isiolo County on factors influencing community ownership of water projects.

Ochelle (2012) did a study on factors influencing sustainability of community water projects in Kenya,

a case of water projects in Mulala division, Makueni County.The study concluded that community participation during conception, design, implementation, operation and maintenance of water projects influences sustainability of communal water projects. Community participation ensures that projects designed borrow from opinions of end users. This factor influences community ownership of water projects and enhances their willingness to effectively manage these projects after construction. The study also concluded that availability of funds, and technology used influences sustainability of communal water projects.

According to Gebrehiwot (2006), sustainability of water projects could originate from the projectenvironment, culture, lack of training and lack of sufficient resources and management related issues. Obtaining sufficient knowledge ofthe factors, which influence sustainability of water projects, has the potential to positively influencesustainability of the water projects. Despite the government and non-governmental organizations making good efforts to supply water to citizens, it has not been able to cover all areas especially rural areas. Consequently, it has become necessary for communities to organize themselves and launch community water projects to ensure they bring water closer to their homes (WHO/UNICEF, 2010).

The lack of effective structures for community participation has been a major constraint. Community participation in their own projects has not yet attained the acceptable levels that qualify to imply full participation (Gicheru, 2012).

iii. To determine the effect of socio-economic factors on effective community participation of funded water projects in West Pokot.

2.0 Effect of Socio-Economic Factors on Community Participation

To achieve any desired outcome, research has suggested that the community must be actively involved; stepping in to the community requires an attitude of 'do it with the people' which entails doing things with them not doing things for them or to them (Anderson & McFarlane, 2010). Anderson and McFarlane (2010) are of the argument that when things are done for people or to people the emotional commitment is limited thus the significance of participatory development. There are various factors that will determine the participation of any given community and they include:Economic level of the community- depending on the scarcity of resources and the unlimited wants of the society, the poorer the community the more they will participate in the donor funded projects since there is vested personal interest resulting eventually to high level of ownership to projects (Boyes & Melvin, 2010).

Geographical location- the locality of the community whether it be urban or rural will determine the participation level; urban population tend to be more exposed and learn very fast which is the opposite of rural, being slow learners and they tend to look at development projects with a lot of suspicion leading to minimal participation (World Bank, 2010). A community that has good leadership and governance always looks out for transparency and honesty; a sense of ownership is brought out since the community through empowerment will demand democracy (Stanfield, 2009). Population coverage- depending on the magnitude of any donor funded project, participation is dependent on how well the community is integrated as groups or individual. Project management should ensure that they have a well laid down strategy in case the population coverage grows beyond or is below the expected figure argued Levy and Lemeshow (2011).

The concept of community project ownership is viewed as a basis for project success. The World Bank (2010) defines participation as a process through which stakeholders' influence and share control over development initiatives, and the decisions and resources which affect them. The concept of community participation originated about 40 years ago, from the community development movement of the late colonial era in parts of Africa and Asia. To colonial administrators, community development was a means of improving local welfare, training people in local administration and extending government control through local self-help activities.However, during this era, the policy failed to achieve many of its aims primarily due to the bureaucratic top-down approach adopted by the colonial administrations.

Once people are involved in a project in some way, maintaining ongoing commitment can become the next challenge. Action research can be a very useful way of dealing with problems such as this. By working through strategies and evaluating their effectiveness in terms of building and maintaining participation on an ongoing basis, a project team can come up with solutions that work best in the local situation. Thwala (2001) asserts that public participation in the planning and management of developmental projects is crucial to their lasting success. However, communities have had little say in the provision of water and in decision making processes in South Africa.

A privileged minority dominates access to water resources while the majority of the population enjoys little or no water security.But the fact that it is so often used to indicate different things or that it conceals what is often no more than a tokenistic acknowledgment of local preferences, should not in turn mean that it is rejected. Like the concept of sustainable development, it is better to see the term ownership as a principle to which organizations and individuals working in development with local people should aspire. Though imperfectly realized, it is an ideal against which practical efforts should be constantly measured. This objective should be

realized through a process of empowerment which gives the poor control over their lives and increases their ability to mobilize sufficient development resources.

Community participation creates an enabling environment for sustainability by allowing users not only to select the level of services for which they are willing to pay, but also to make choices and commit resources in support of the choices made by the community (Sara and Katz, 2008).

As summarized by Yacoob and Walker (2001), the concept of community participation has undergone dramatic perceptual changes over the past 30 years. Between the 1960s and 1980s, the success of community participation was measured as the amount of labor or up-front contribution by communities during project construction. Now, community participation means that communities are actively involved in project development activities, through making appropriate labor, time and financial contributions to both the initial and long-term operation and management of the projects.

As noted by McCommon, Warner and Yahalem (2000) community participation alone does not guarantee sustainability. Whereas community participation emphasizes beneficiaries' participation in the decision-making process, community management refers to the capabilities and willingness of communities to take charge, influence and determine the nature of the project. Community participation and management create both desires and capabilities within communities to influence and control the goods and services to be produced by the project during its life cycle. Following Wright (1997), Narayan (1995b), Yacoob and Walker (1991), and McCommon, Warner and Yohalem (1990) indicators of community participation and management can be summarized as follows:

Participation in decision making: All aspects related to project development andimplementation have to be based on community preferences. The community has tocommunicate their needs and decide what is best for them. Issues such as projectdesign, community contributions, external assistance, and user fees or tariffs haveto be decided upon by the community or beneficiaries of the project. For water andsanitation programs, involvement of women in all stages of decision making is ofparamount importance. Women constitute the major group of beneficiaries of waterand sanitation programs. Thus, they need to be involved as equal partners and not asa special group of beneficiaries.

Informed choice. Communities must be informed on the available options oravailable alternatives and associated costs. Informed choice helps communities tomake decisions concerning community capabilities to manage the project. Community contribution: Communities should willingly contribute to thedevelopment and operation of the project if they are to feel that they own the project.Contributions such as monetary investment, material equipment, labor, and generalparticipation in project related committees and meetings should be voluntary.Coercive contributions create hostility towards the project.

Representation: Water managers should represent the diversity within thecommunity. They should be elected democratically representing all communitymembers. Women representation as an important group should be clear. Responsibility: The community should be ready take on the ownership and attendantobligations of the project. They should understand that the project belongs to themand its survival or collapse depends on community investments (i.e., in terms ofhuman, physical and financial capital). Roles of each stakeholder should be clearlydefined in order to avoid confusion in management or creating false expectationsamong community members.

Authority: The community has a legitimate right to make decisions regarding theproject on behalf of the users. Interference from the donor or government should beminimal and occur only when requested by the community or when intervention isin the interests of the beneficiaries. Control: The community is able to carry out major decisions and determine theoutcome of the decisions. Donors or government agents can be involved in decisionmaking through consultation.

These indicators may not be exhaustive and may mean different things to different authors, but represent the fundamentals of community participation and management for demand responsive water and sanitation programs. The indicators provide the basis of communities' satisfaction and community empowerment. They create a sense of community ownership, self-reliance and advancement within communities, and they strengthen community organizational and management skills, mobilize resources from all stake holders, and help in determining the long-run sustainability of the project.

3.0 METHOD

This study employed a descriptive survey research design. This study was conducted in West Pokot County.Thus, the target population for the study comprised of the 11,000 local community members who are using the funded water projects and 18 management committee of the funded water projects. the sample size for the local community comprised of 164 study participants. A questionnaire was the main tool used for collecting data and other information relevant to the study. multiple linear regression model that was used in the study. The items scale were ordinal from a low of 1- strongly disagree to a high of 5 – strongly agree.

4.0 Results and Discussion

The study findings indicated that socio-economic factors influenced effective community participation of funded water projects in West Pokot.The study findings showed that a significant number of the respondents 57.8 percent agreed thatlanguage barrier during project discussion forums hindered effective community participation, 63.8 percent agreed that nomadism among the Pokots affected effective community participation, 61.8 percent agreed that education level of the community members determined the level of community participation, 74.4 percent agreed that there was proper and effective community leadership that promoted community participation, 71.0 percent agreed that majority of the active community members were economically challenged and 85.8 percent agreed that water project had positively transformed health, water and sanitation practices in the region while 81.8 percent agreed that the level of community awareness on the importance of water projects influenced effective community participation.

Results from testing the hypothesis indicated that p-value of 0.000and the null hypothesis was rejected. Pearson Correlation coefficient (r-value) is 0.544, which represented a positive but average relationship between socio-economic factors and effective community participation. Therefore, the study concluded that socio-economic factors had a significant effect on effective community participation in water funded projects in West Pokot.The findings of the study were supported by the findings of Boyes and Melvin(2010) who stated that there are various factors that determined the participation of any given community and they include:Economic level of the community- depending on the scarcity of resources and the unlimited wants of the society, the poorer the community the more they will participate in the donor funded projects since there is vested personal interest resulting eventually to high level of ownership to projects. According to Stanfield(2009) a community that has good leadership and governance always looks out for transparency and honesty; a sense of ownership is brought out since the community through empowerment will demand democracy.

Correlation Coefficients

As shown on Table 4.1 below, the p-value was found to be 0.000 which is less than the significant level of 0.05, ($p<0.05$). Therefore, the null hypothesis was rejected while the alternative hypothesis was accepted. The result indicated that Pearson Correlation coefficient (r-value) is 0.544, which represented a positive but average relationship between socio-economic factors and effective community participation. Therefore, the study concluded that socio-economic factors had a significant effect on effective community participation in water funded projects in West Pokot.

Table 4.1: Correlation Matrix

		Socio-economic Factors	Community Participation
Socio-economic Factors	Pearson Correlation	1	.544**
	Sig. (2-tailed)		.000
	N	150	150
Community Participation	Pearson Correlation	.544**	1
	Sig. (2-tailed)	.000	
	N	150	150

5.0 Conclusion and Recommendation

Socio-economic factors influenced effective community participation of funded water projects in West Pokot. The west pokot county government should provide adequate training to enable the community to create awareness of effective community participation on the importance of water projects. They should provide proper and effective community leadership that promotes community participation. Cultural practices like nomadism that hinder effective community participation should also be discouraged to improve the level of community participation. There should be regular meetings to discuss the finances of the projects so as to increases community's knowledge on financial expenditure of the project and increase the level of accountability among the project committee members. This will go a long way in increasing the level of community participation. The community members should be encouraged to embrace education so as to improve the level of literacy in the community as well as increase their level of understanding on the need for community participation in water projects.

References

Amit, R. & Schoemaker, P J H. (1993). Strategic assets and organizational rent, *StrategicManagement Journal,* 14 (1), 33-46.

Asian Productivity Organization (APO) (2002). Participatory Project Cycle Management (PPCM): A Planning Method for Community Development.*Human Resource Management,* vol. 47, no. 1, pp. 15–32

Baiocchi,G, (2005). Militants and citizens- the politics of participatory democracy. Porto Alegre, Stanford, Stanford University press, Vol 3(1), 12-20.

Barney, N.L. (1995). Select the right IS project manager for success. *Personnel Journal Vol*. 6, no. 4, pp 13-18.

Baur P. & Woodhouse, J (2009).Enhancing private sector in rural water supply: An action-oriented study.*The International Journal of Human Resource Management,* vol. 24, no. 8, pp. 1671–1684.

Bhandari, B., & Grant, M. (2007). User satisfaction and sustainability of drinking water schemes in rural communities of Nepal. *Sustainability: Science Practice and Policy,* 3(1), 12-20.

Blackman, R. (2003).*Project Cycle Management.* Tearfund. Teddington, England, vol. 24, no. 8, pp. 1671–1684.

Boru, J.(2012).Determinants of community ownership of water projects in Kenya, a case of central division, Isiolo County.*Unpublished MA Thesis University of Nairobi.*

Brikke, F. (1997). Linking Technology Choice with Operation and Maintenance for Low Cost Water Supply and Sanitation.London: WEDC, *Loughborough University. UK.*Vol. 7, no. 3, pp 113-115

Camisón H., (2005). Patent thickets, licensing and innovative performance.The *International Journal of Human Resource Management,* vol. 24, no. 8, pp. 1671–1684.

Campos, M. (2008). Making sustainable water and sanitation in the Peruvia Andes: anintervention model. *Journal of Water and Health.* Vol. 6, no. 1, pp 2008-2015.

Cernea, M.M &Ayse. K. (1997). Social Assessment for Better Development: Case Studies in Runia and Central Asia. Washington DC. *The International Bank for Reconstruction and Development.*The World Bank. Vol. 5, no. 1, pp 99-111.

Food and Agricultural Organization (1991). Plan of Action for People's Participation in Rural Development: Twenty-Sixth Session,*FAO Conference. Rome.* Vol. 9, pp 9-28.

Fielmua N. (2011). The role of the community ownership and management strategy towards sustainable access to water in Ghana: A case of Nadowli District. *Journal forsustainable development* Vol. 4, No.3, pp 33-56.

Gicheru C.M (2012).*Preparatory water resources assessment study. Isiolo Garbatulla, Merti and Samburu East Districts.* Unpublished Thesis.

GOK (2015).Water Resources Management Authority. Strengthening Regulations. For Sustainable Water Resources Management in Kenya.*Session Paper no. 12.*

Global Water Partnership - GWP (2000a). Towards Water Security: A framework for action. Global Water Partnership. *Stockholm and Harare,* Vol. 4, No.3, pp 33-56

Harvey, P.A. & Reed, R.A. (2007).Community-Managed Water Supplies in Africa: Sustainable or Dispensable? *Community Development Journal.* Vol. 42, no. 3,pp 365-401.

Hoopes, B., Madsen, J. & Walker, H. L. (2003). Global cost benefit analysis of water supply and sanitation interventions,*Journal of Water Health*. Vol. 5, no. 5, pp 481-552.

International Rescue Committee, IRC (2012). Presentation for the first Northern Uganda regional learning forum in Gulu. *Journal of Water Health.* Vol. 10, no. 5, pp 181-252.

Kay, J. K. (2005). Statistics notes: The intra-cluster correlation coefficient in cluster randomization.*British Medical Journal,* vol. 4, no. 316, pp 1455–1460.

Keen, J. J. (2007). Methods of initiating community participation in water supply and sanitation Programs.*Journal on Community Health,* vol. 5, no. 3, pp 26-44.

Khwaja, A. I. (2004).Is Increasing Community Participation Always a Good Thing? *Journal of the European Economic Association,* Vol. 10, no. 5, pp 181-252.

Karki, M (2001). Institutional and Socio-Economic Factors and Enabling Policies for Non-Timber Forest Products-Based Development in North East India. *Paper presented in the Pre-Identification Workshop for NTFP-led development in NE India, organized in IFAD, Rome:* Feb. 22-23.

Kimani, N.(2014). Influence of community participation on performance of Constituency Development funded Rural Borehole Water Project.*Journal of the European Economic Association,* Vol. 10, no. 5, pp 181-252.

Kleeimer, E. (2002). The impact of sustainability: An analysis of the Malawi rural piped scheme program.*World Development.* Vol. 28, pp 929–944.

Kothari, C. R (2007). Research Methodology: Methods and techniques. 2nd Revised Edition. New Delhi.*New Age International Publisher.* Vol. 5, no. 2, pp 23-74.

Matiza-Chiuta, T., Johnson P. and Hirji, R. K. (2002). Water and the economy. Defining and Mainstreaming Environmental Sustainability in Water Resource Management in Southern Africa. SADC,IUCN, SARDC, World Bank:Maseru/Harare/Washington DC.*Journal of the European Economic Association,* Vol. 10, no. 5, pp 181-252.

McCommon, C. (2009).Community Management of Rural Water Supply and Sanitation Services, Washington DC, USA.*Nordic Journal of Political Economy, vol.* 31, pp. 47–73.

McCommon, C., D. Warner, and D. Yohalem. (1990). Community Management of Rural WaterSupply and Sanitation Services.*WASH Tech. Report Number 67*, pp. 467–501.

Mclvor, C. (2008).Community participation in water management, experiences from Zimbabwe.*Personnel*

Psychology, vol. 61, no. 3, pp. 467–501.

Mugenda, M. & Mugenda, G. (2003). Qualitative and Quantitative approaches. Research Methods. *Africa Center for Technology Studies (ACTS) Press.* Nairobi Kenya.

Mukunga, F. M. (2012). Influence of community participation on the performance of Kiserian dam water project, Kajiado county Kenya. *Unpublished MA Thesis- University of Nairobi.*

Mushtaq, A. M. (2004). Community participation in water supply and sanitation schemes around Hyderabad, Pakistan.*Nordic Journal of Political Economy,* vol. 31, pp. 47–73.

Mwakila M. W. (2008).An Assessment of Community Participation in Water Supply and Sanitation Services: The Case of Yombo Dovya and Barabara ya Mwinyi, Water Community Projects, Temeke, Tanzania.*Personnel Psychology,* vol. 61, no. 3, pp. 467–501.

Narayan, D. (1995a). Participatory Evaluation: Tools for Managing Change in Water and Sanitation.*Paper NO. 207, The World Bank,* Washington, D.C., USA.

Ngetich R C. (2009). An assessment of factors influencing sustainability: The case of community water projects in Keekonyokie Central Location of Kajiado District, Kenya.*Unpublished MA Thesis-University of Nairobi*.

Nkongo, D. (2009). Management and regulation for sustainable water supply schemes in rural communities in Tanzania.*The American Economic Review,* vol. 86, no. 2, pp. 263–267.

Ochelle G.O (2012). Factors influencing sustainability of community water projects in Kenya, a case of water projects in Mulala division, Makueni County.*Journal of the European Economic Association,* Vol. 10, no. 5, pp 181-252.

Paul, B. (1987). Community Participation in Development Projects.*World Bank Discussion Paper No. 6,* World Bank, Washington, D.C., USA.

Petersen, K. O. (2006). Water for rural communities. How Kenyan rural communities can create their own water supplies with assistance from the water services trust fund Danish international development agency. *English Press Nairobi*, Kenya.

Pfeffer and Salancik (1978). The dismal science and the endless frontier: How and why economists think about S &T policy: *A guide for further reading.* Available at: http://ideas.repec.org/p/wpa/wuwpit/0411007.html.

Kilasi J. S. (2014).Local Participation in Sustainable Community Water Management in Peri-Urban Areas of Greater Accra Region Ghana. *The American Economic Review,* vol. 86, no. 2, pp. 263–267.

Sekaran, U. (2003). Research methods for business: *A skill-building approach.* 4TH ed. New York: John Wiley.

Tandia T. C. (2006). A ladder of community participation for underdeveloped countries, *Habitat International,* Vol. 20, pp 431–444.

Toole, N. (2002).Community Participation in water projects, *The American Economic Review,* vol. 86, no. 2, pp. 263–267.

Uma, S., & Rodger, B. (2013). Research Methods for Business (6th Edition ed.). Chennai:Printer Trento Srl.*Economics of Education Review,* vol. 30, no. 6, pp. 1118–1122.

Van, S.C. (2008).Gender in water resources management, water supply and sanitation: Roles and realities revisited. *International Research Centre for Water and Sanitation.* Delft, the Netherlands.Personnel Psychology, vol. 61, no. 3, pp. 467–501.

WHO/UNICEF (2010).Progress in Drinking Water and Sanitation: *Special Focus on Sanitation.*Available on:http://www.who. int/water_sanitationhealth/monitoring/jmp2008/en/. Accessed on 16.07.2015.

World Bank, (2010). Project Appraisal Document on a Proposed Credit to the Republic of Ghana For a Sustainable Rural Water & Sanitation Project. May 28, 2010.*The World Bank, Washington, DC.*

Wright, A. M. (1997). Toward a Strategic Sanitation Approach: Improving the Sustainability ofUrban Sanitation in Developing Countries.*UNDP/World Bank Water and Sanitation Program,* Washington D.C., USA.

Yacoob, M. and J. Walker. (1991). Community Management in Water Supply and Sanitation Project: Costs and Implications. *J. Water SRT-Agua* Vol. 40, no. 4, pp30-34.

Zikmund, W. G. (2003). Business research methods (7th ed.). *Mason, OH: Thomson South-Western. Business Journal,* vol. 61, no. 3, pp. 467–501.