THE INVOLVEMENT OF PUPILS IN SUSTAINING WATER SANITATION AND HYGIENE (WASH) PROJECTS IN KISUMU WEST DISTRICT SCHOOLS KENYA

BY

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A RESEARCH PROJECT SUBMITED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN PROJECT MONITORING AND EVALUATION

SCHOOL OF PLANNING AND ARCHITECTURE

MASENO UNIVERSITY

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ABSTRACT

The concept of stakeholder participation was embraced in response to inadequacies in community development planning of 1950s and 1960s, which mainly adopted top-down approach in decision making. In recent years, development agencies especially governments and donor communities have embraced this concept in their WASH programmes through their policies of decentralization, privatization and transparent governance. This was informed by the fact that it played a major role in sustaining community projects. In Kisumu West District however studies conducted on sustainable measures on Water, Sanitation and Health (WASH) facilities by SWASHPLUS in 2004 indicated that only 5 schools out of 55 that were piloted were in usable, accessible and hygienic condition, this indicates that a high percentage of the structures had become dysfunctional within a period less than ten years which is below the expected life span of such structures. This study therefore investigated the extent of the interaction between the pupils and overall planning of WASH projects with a view to establishing whether this contributes to the fast rate at which the water and sanitation infrastructure degenerates, the study concluded that pupil participation in WASH projects was still wanting and needed to be extended to include issues beyond behavior practice where a majority of pupils take part, the study recommended that it is important that pupils be involved from project initiation to designing and technology down to monitoring and evaluation of their usage in order to ensure that they sustain. The objective of this study therefore was to assess the role of pupils in sustaining WASH projects: Examine the role of pupils in planning process, asses the role of pupils in implementation and management process as well as examining the role of pupils in monitoring and evaluation of the usage of these facilities. Study population involved pupils, teachers and key informants. A total of 67 schools having 19005 pupils, 547 teachers were used as well as CBOS and relevant government agencies. Students size was determined by Cole's formula, while there selection was done by probability sampling. School sizes was obtained by one third rule as established by Elsevies, selection of teachers was by convenience sampling while CBO's was by saturated sampling. Primary data was obtained through questionnaires, in depth interviews and direct observation. Secondary data was obtained from already available resources. All the data was analyzed continuously. Descriptive techniques was used to represent qualitative data while quantitative data was be analyzed by use of SPSS .The findings was given in form of a report.

INTRODUCTION

1.1 Background to the Study

The limited success of many WASH development initiatives has been attributed to failure to involve beneficiaries in their planning and implementation (Cernea 1991, FAO 1990, Hinchcliffe *et al* 1995] the main emphasis in the 1980s was therefore to popularize participation and on ways to involve citizens in WASH development projects and programmes since most programs by and large were top-down decision making, compartmentalized along disciplines and more importantly unsustainable (Karky, 2001).

Development agencies especially governments and donor communities have embraced this concept in water and sanitation and health programmes in schools, this is informed by the great role that this concept has played in sustaining these projects and as (Grantees *et. al.*2011), observes when we understand the needs and preferences of beneficiaries, the more likely we are to deliver something sustainable.

Globally the call for participation of beneficiaries in WASH management has been embraced because of its success in enabling them to be in usable and hygienic conditions for a long time. It is envisaged that the beneficiaries (pupils], decide their priorities, take responsibility for running the project and maintain the drive to sustain them (Plan International 2008]

In Kenya the government has adopted this concept to the Water and Sanitation project in schools albeit very minimal. They have largely focused on construction of wash facilities in schools putting emphasis on infrastructure development with less focus on the contributions of the beneficiaries in their planning through to implementation.

This has led to poor state off existing school infrastructure due to inadequate maintenance resulting to poor water, sanitation and hygiene facilities and practices. All these have been blamed on passive engagement of beneficiaries in the planning, implementation, management and monitoring of these projects. In KisumuWest District there has been collaborative interventions involving the government and nongovernmental organizations and beneficiaries, there role has been to scale up the WASH progrmmes in schools to increase equitable and sustainable access to, and use of safe water and basic sanitation services, and promote improved hygiene (UNICEF 2011). However the role of pupils who are the key stakeholders in sustaining these projects has not been clearly defined.

This study therefore focuses on how the extent pupil participation in planning of WASH interventions in Kisumu West district primary schools enables them to be in sustainable conditions in the long term, in a county where a survey conducted in 2008 on the sustainability of WASH programmes showed only 5 out of the 55 schools piloted as being in usable, accessible hygienic conditions despite the pupils intervention (SWASHPLUS 2004).

The goal of this study was to assess the role of pupils in sustaining wash projects within primary schools in Kisumu West District

1.2 Statement of the Problem

Sustaining WASH programmes in schools continues to remain a major challenge worldwide. In Kenya primary schools and a large number of non-formal schools offering primary school curriculum have poor water and sanitation infrastructure (MoE 2010). These has further been worsened by the introduction of Free Primary Education (FPE) in 2003,which resulted in a rapid increase in the number of children

in primary schools and placing severe strain on the existing infrastructure and facilities. Improved hygiene practices are essential if transmission routes of water- and sanitation-related diseases are to be cut. Diseases such as diarrhea, parasitic worm infections, skin and eye diseases, need to be tackled by making improvements to water and sanitation facilities. Poor maintenance of these facilities therefore can be a major barrier to improving access to primary education in this country according to UNICEF publication of 2011. WASH interventions in Kenya in 2006 and 2007 reveals problems with maintenance of school WASH infrastructure, leading to low enrolment, high absenteeism and dropout rates (IRC, 2010).

In Kisumu West District a study conducted in 2008 on the sustainability of safe water systems intervention in 55 pilot schools shows that only 5 schools were deemed to have been in usable, accessible and hygienic conditions (SWASHPLUS, 2011) the infrastructure is usually in inconsistent use and poorly maintained. Water points most of the times always have their taps destroyed or are always without water due to leakages, latrines on the other hand are always left in dirty and unmaintained conditions this is mainly because most school WASH programs focus on top- bottom approach of planning ignoring the contribution of the beneficiary stake holders in the planning, implementation through to monitoring and evaluation of the usage of these facilities. There is need therefore to assess the role played by beneficiaries with a view to ascertain the extent to which their contribution aids in sustaining the life of these projects.

1.3 Objectives

The main objective of the study is to assess extent of the pupil's involvement in sustaining WASH projects within primary schools in, Kisumu West District. The specific objectives are

i.   To examine the role of pupils in planning process of WASH projects.

ii. To assess the role of pupils in implementation process of WASH projects.

iii. To examine the role of pupils in management process of WASH projects.

iv. To examine the role of pupils in Monitoring and Evaluation process of WASH projects.

1.4 Research Questions

i.   How does the role of pupils in planning process sustain WASH projects?

ii. How does the role of pupils in implementation process sustain WASH projects?

iii. To what extent does the management process by pupils influence sustainable WASH projects?

iv. How does the role of pupils in Monitoring and Evaluation of the usage of water and sanitation facilities ensure their infrastructural sustainability?

1.5 Justification of Study

The state of school WASH infrastructure remains in deplorable conditions; this is despite the intervention measures by both the government and nongovernmental organizations, through their huge financial investments. A research carried out by SWASHPLUS in 2011 shows that only 5 out of 55 WASH facilities which were constructed 4 years ago through PLAN Kenya are in usable and hygienic conditions within Kisumu West District primary schools. The study therefore intends to find out

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the extent of beneficiary involvement in the whole project cycle with the aim of establishing if these roles can aid in sustaining the life of these projects long after these donors have pulled out. It also intends to bring out the need for beneficiary participation in WASH development projects which is underscored in various writings, the study also intends to link top- down approaches of planning where beneficiary participation in their planning is ignored, to their failure to sustain. Sustainable WASH enables the infrastructure to be in a condition that is usable accessible and hygienic.

1.6 Scope and limitations of the Study

The study was carried out in kisumu west district Kenya. It has two administrative divisions, Maseno and Kombewa. The 2009 census reports a population of 378872 people with a projection of 472 105 by 2012.The population structure shows that 42% of the population are school going children. Kisumu West District has approximately 67 public schools with a population of 19005 pupils. It is located on the North Eastern shores of Lake Victoria. The site covers an area of 369km^2 with a monitored population of 120, 436 according to kisumu district census report of 2009.

The main study was limited and conducted in 22 schools with WASH projects ongoing; it involved 39O pupils as shown. It also involved teachers within these schools who are in charge of health and sanitation. Information was also obtained from PLAN-international local nongovernmental organization that sponsored most these projects.

Table 1.1: List of Schools under Study and Respective Number of   pupil Respondents

School	Sample size per school
Mawembe Kodero	17
Mbaka Oromo	17
Mkendwa	17
Nametsa	17
Nawa	17
Ndege	18
Nyaduongo	17
Nyakongo	18
Orinde	17
Sanganyinya	17
Sidika	17
Sinyolo	18
St. Alloys Ojola	18
Ochok Kadongo	25
Pith Kabonyo	19
Sunga	17
Thim Bode	17
Tiengre	17
Usoma	17
Kokulo	18
Maliera	18
TOTAL	**390**

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the extent of contribution of beneficiaries in WASH project planning with a view to establishing whether this contribution sustains them in the long term. It examines the role of pupils in the planning process, the role of pupils in the implementation stage, the role played by pupils in management process, it also brings out the role of pupils in monitoring and evaluation of the usage of water and sanitation facilities as well as participatory planning gaps that can be used to advance infrastructural sustainability of WASH project.

2.1.1 Planning Process and the Role of Pupils in Sustaining WASH Projects

WASH in Schools is more than construction of facilities. In addition to sound construction with child-friendly designs, an effective WASH programmes in Schools requires adequate participatory planning and coordination among the stakeholders involved To succeed this is according to Hoben *et al* (1996}. He continues to say that School WASH projects requires a strong focus on participatory planning of the operation, use and maintenance of water and sanitation facilities in the schools while also reaching out to the community and homes. Participatory Planning has lately been adopted since it ensures sustainability of the WASH infrastructure as well as effective behavior change in software activities. When school sanitation and hygiene facilities are absent or poorly maintained and used, schools become a health hazard. During the 1997-98 Cholera epidemics in Uganda, schools rapidly became a place for disease transmission and 560 schools had to be closed. A study done in Cali, Columbia observed that over 40% of the cases of diarrhea among school children were attributed to school transmission rather than transmission in the home. (IRC

2004).Poor health among school children as a result of illnesses associated with water and excreta related diseases plus poor hygiene practices often results in poor attendance rates among children while improvement of water and sanitation facilities in schools increased girls' enrolment by 11-15 % (Cancross1998) A study conducted in Madagascar found that 3.5 million school days are lost each year due to ill health related to poor sanitation. [IRC2004).

WASH project planning process entails project identification and design implementation. Project identification as a stage in strategic planning basically involves needs assessment to find out what beneficiary community needs are and how they benefit. Needs assessment gives beneficiary community an opportunity to prioritize their needs, which leads to a more sustainable development projects.

Various studies carried out indicate that rarely are pupils involved in designing stages of the project. According to Bamberger (1996), projects tend to be identified and designed by donor community in collaboration with central government officials. Under these arrangements, the budgets and timelines are planned in a rigid way, making it difficult for the beneficiaries (pupils) to play significant role. Shah *et.al* (2000), recognizes that there is great omission of beneficiaries by the development organizations in planning stage of WASH project, according to him, many projects in the past have been planned in top-down fashion, with little or no real beneficiary participation in designing and implementing them. Even when an element of participation is built into projects, it is all too often largely in terms of just including local investment of labour and not real decision making.

Using the case of school wash projects in India, authors observe that even these projects specifically intended to benefit schools have often not sustained in the past because of serious project design and implementation weaknesses. Lele (1975) observes that during project design beneficiaries of the project are usually only informed after plans have been made and that this is done through formal meetings where the officers justify their plans, but modification of perhaps design to be in sync with the beneficiaries is not considered.

According to Hoben *et.al* (1996), project ideas too often come from donor staff, rather than from the beneficiaries. They note that project selection is too often influenced by political and bureaucratic pressures that arise at the higher levels of administration rather than local levels. Design requirements have been so complex that many projects are modeled closely on the previous efforts to save time and money regardless of weather they satisfy the needs of the beneficiaries. According to Zazueta (1995) and Hoben *et.al* (1996) the top-down approach adopted by many authoritarian regimes has negative view of beneficiary participation in projects. Zazueta notes that these regimes harbor the assumption that people need to be told how to "participate" in centrally planned strategic development paradigm. According to Kelly (2001), many WASH projects are still top- down, aimed at or run for but not developed with the people. Frequently, project beneficiaries are dragged into taking part in programmes that do not take into account their contribution. The justification for manipulation is often bureaucratic government or agency employees who implement participatory activities and often have little or no understanding of the theory of participatory strategic planning, the government tends to maintain strong control over policy development and then expect implementation to occur with minimal consultation with local people Younis (1997). However experience has shown that

achievement of rational, equitable and sustainable development is difficult without

participation and full support beneficiaries in the designing stages of development

activities Karki (2001).
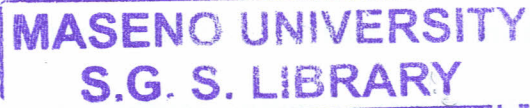
Uphoff (1992), Korten (1980) and Chambers (1997), all argue that alternative people

centered approaches to development that addresses the specific needs of the

beneficiaries than top-down, are needed if programmes are to sustain for long term,

Slocum (1995) explains that central to these alternative approaches is the belief that

project beneficiaries are critical reflection and analysis and that their knowledge is

relevant, necessary and valuable. For the projects to sustain for long term, the pre-

feasibility and design stages as well as implementation should involve all the stake

holders in its qualitative and quantitative research analysis (Orr, 2000).it therefore

follows that beneficiary participation should not be seen merely as an input but as an

underlining operational principle, which should involve all stages of strategic

planning. Participation must be intrinsic to the projects development and not simply

an activity, which is used from time to time to provoke beneficiary's interest.

According to Pollinac et.al. (2005), beneficiary participation in project development

and implementation results in having a feeling of ownership with respect to the

project, they helped create and this ensures their infrastructural sustainability. In the

recent past authors observe that WASH development agencies including Plan-Kenya,

and national governments ,encourage participatory planning, here the beneficiaries

are involved in project at the planning stages this is informed by the fact that

participatory planning has proved to ensure that they sustain in the long run

2.1.2 The Role of Pupils in Management and Implementation WASH Projects

A number of factors influence beneficiary participation in safe handling of project facilities. These include physical factors as (distance of facilities from the users as well as the technology of the design) economic factors as (availability of project facilities to cater for their demands, political factors (e.g. Existence of national political ideologies promoting best practices while handling facilities). Social factors like social stratification as well as ethnic and racial distinctions also influence best practices. Cultural factors e.g. (differential attitude towards authority), historical factors e.g. (the nature beneficiaries previous experience with wash facilities these includes availability of knowledge). Also influences best practices while handling wash facilities Oakley *et al (1997).*

Jakariya (2000) in his study on pupil participation of water projects in India observes that participation in safe projects handling is influenced by educational level, age of respondents as well as level of exposure.

2.1.3 Pupils Role in Monitoring and Evaluation of the Usage of WASH Projects

Monitoring and Evaluation should be an ongoing activity in School WASH programmes (Unicef 2010).Properly designed beneficiary Monitoring and Evaluation systems can serve the purposes of influencing infrastructural sustainability Barry (1997). According to him overall WASH Monitoring and Evaluation plans should be determined locally in accordance with particular concepts and condition .M&E constitute an extension of the planning process and, at the same time, should be an area for beneficiary involvement. M&E, therefore, should be carried out locally as it is important to regard beneficiaries as agents who are capable of analyzing their own situations and designing their own solutions, Cernea. M .U (1991). According to

Jewkes. R (1995), most WASH projects usually adopt Conventional M&E which is often based on quantitative, non-participatory surveys designed by evaluators external to the program or project in question. These processes have been increasingly criticized for being "top-down," serving only the interests of donors, and providing little if any opportunities to the beneficiaries Aubel .J (2004) The idea of beneficiary participation in evaluation is now widely accepted, Estrella *et al* (2000), he observes that Involving beneficiaries in WASH project monitoring and evaluation in Schools interventions promotes a sense of ownership, which is a necessary prerequisite for sustainability . Involvement can take the shape of school management committees, parent-teacher associations or primary beneficiaries.

In Sri Lanka, a bottom up approach was introduced for planning, monitoring and evaluation of the usage of water and sanitation facilities in primary schools (Upholff 1992). This approach ensured infrastructural sustainability of the projects. In Kisumu West district pupils are engaged in monitoring and evaluation of the usage as well as operation and maintenance of wash facilities. Using daily structured guides, pupils record latrine cleanliness, provision of water, water treatment, and soap availability. They also Once a week record whether any latrines, water storage vessels, or water sources are in need of repairs or in good condition(plan-Kenya 2006).

2.2 Knowledge Gaps

Literature review reveals that school WASH programmes that report initial successes in improving access may not sustain following the end of programme activities. True project sustainability involves a complex system of inputs and relationships across multiple levels, extending from participatory planning made at an individual level

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upwards toward policy created at the government level. While each new intervention will encompass a slightly different set of necessary components to ensure the continuation of benefits beyond the timeline of the intervention itself, it is likely that certain aspects are vital to almost all projects in the school WASH sector. Literature review reveals that, failure to continue project activities is caused by weaknesses in the participatory planning where pupils as project beneficiaries are passively involved in certain stages of the planning more specifically at the initial stages where strategy formulation and objectives takes place as well as evaluation of the achievements. As schools receiving the WASH interventions do not have control over all aspects of the enabling environment, it is the responsibility of the implementing stakeholders therefore to ensure that beneficiary stake holders are engaged prior up to the end of any project. lessons learned from this knowledge gaps to develop a strategic plan that addresses interventions that beneficiaries are able to sustain for longer periods of time. In order to develop a better understanding of sustainability challenges and successes, beneficiary stakeholders must be involved contributing post-final evaluations that can inform best practices and enhance long term sustainability of these projects.

2.3 Conceptual Framework

The conceptual framework in figure 1 below will guide this study. Sustainable development is increasingly dependent on multi beneficiary involvement in planning. The role of stake holders has to be seen in the context of participatory and integrated approach of the whole project process (Smith, 2001).Participatory planning should generate a learning process
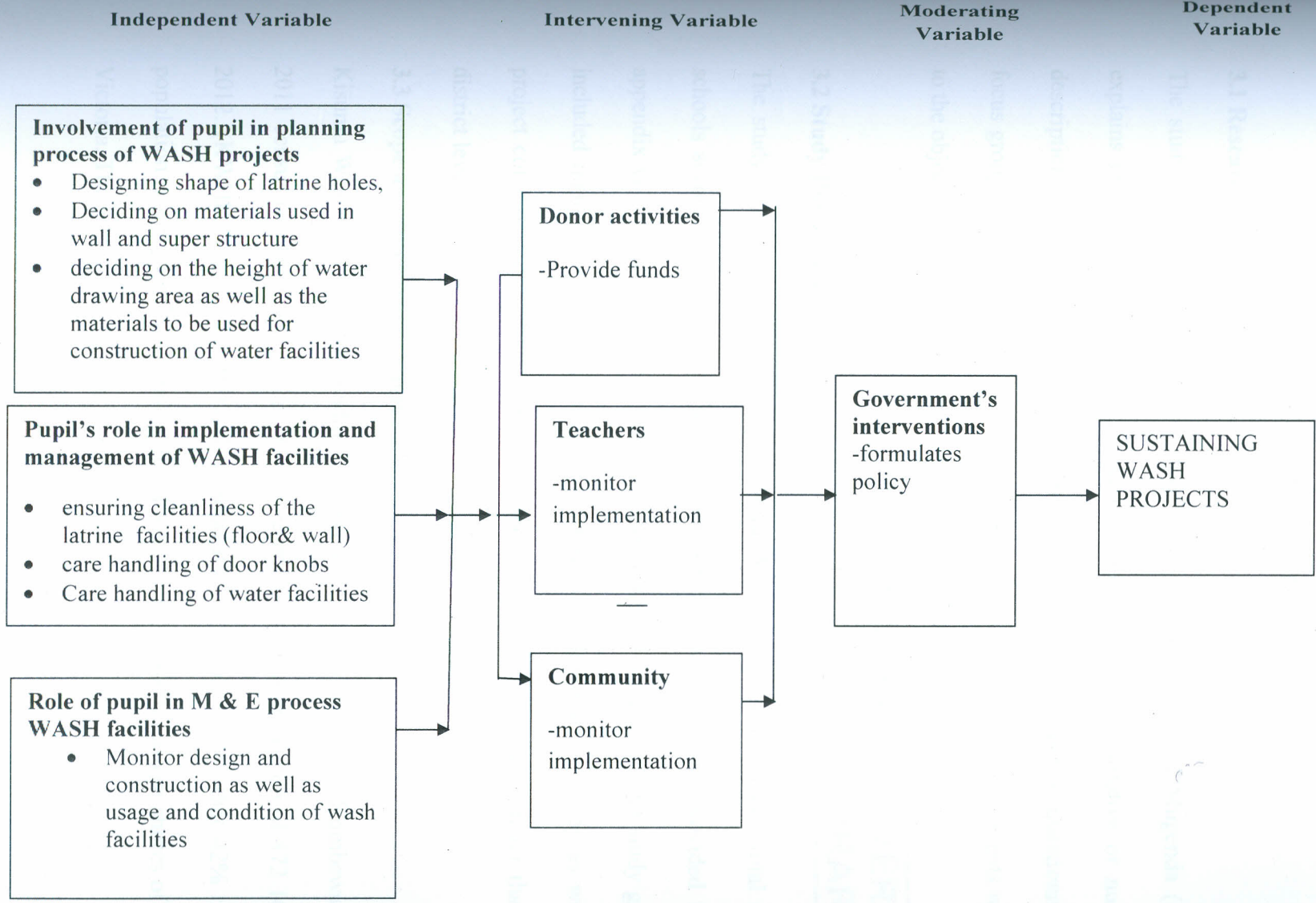
| Independent Variable | Intervening Variable | Moderating Variable | Dependent Variable |

Involvement of pupil in planning process of WASH projects
- Designing shape of latrine holes,
- Deciding on materials used in wall and super structure
- deciding on the height of water drawing area as well as the materials to be used for construction of water facilities

Pupil's role in implementation and management of WASH facilities

- ensuring cleanliness of the latrine facilities (floor& wall)
- care handling of door knobs
- Care handling of water facilities

Role of pupil in M & E process WASH facilities
- Monitor design and construction as well as usage and condition of wash facilities

Donor activities

-Provide funds

Teachers

-monitor implementation

Community

-monitor implementation

Government's interventions
-formulates policy

SUSTAINING WASH PROJECTS

Figure 1: Conceptual Framework

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The study adopted cross sectional studies and as Mugenda and Mugenda (1999) explains cross sectional survey design generally provides quantitative or numeric descriptions of some part of the population. Survey methods such as questionnaires, focus group discussions, in depth interviews and direct observation of events related to the objectives were part of this study design.
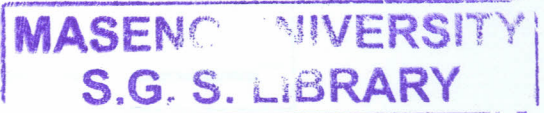
3.2 Study Population

The study was conducted within Kisumu West District which has a total of 67 schools according to statistics from the Ministry of Education and provided for in appendix vi. The schools had a total population of 19005 pupils. Other study groups included members of the teaching staff within the schools under study as well as project collaborators both governmental and nongovernmental (not higher than the district level

3.3 Scope and Area of the Study

Kisumu West District has two administrative divisions, Maseno and Kombewa. The 2011 census reports a population of 378872 people with a projection of 472 105 by 2012. (KWHDSS Census, 2011). The population structure shows that 42% of the population is school going children. It is located on the North Eastern shores of Lake Victoria. The site covers an area of 369km^2
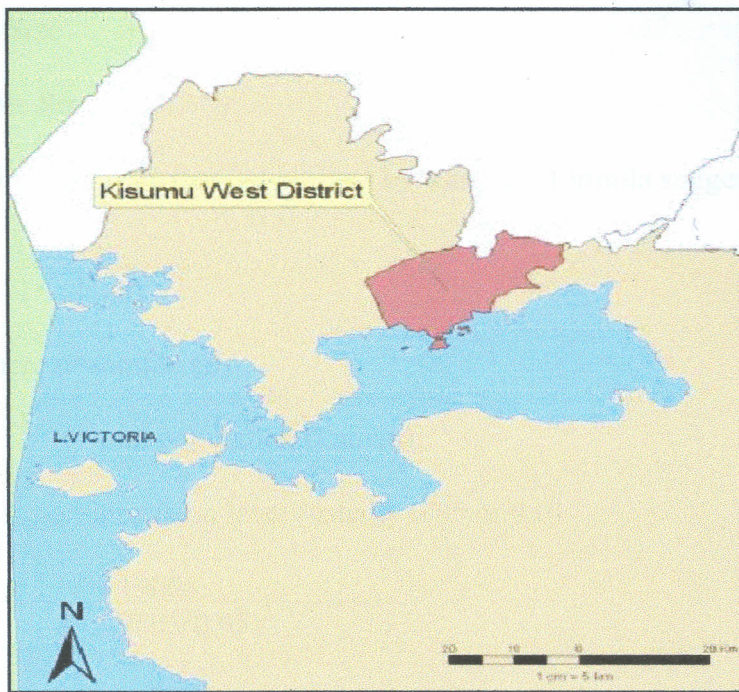
Plate 1: Map of Kisumu West District

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3.3.1 Sample Size

Pupil's Sample Size

Sample size for the pupils was determined by using the formula suggested by Yamane (1967)

$$n = \frac{N}{1+ N(e)^2}$$

Where n=sample size

N=total population (known)

e = precision level (usually 0.05 or 0.01

$$n = \frac{19005}{1+ 19005(0.05)^2}$$

$$= 390$$

Schools under Study

The schools were selected by use of one third rule as established by Elsevier (2010).

1/3 of (67) = 22 schools

Simple random sampling was used in selecting both the schools under study as well as students within these schools; this ensured that every school and or pupil had an equal chance of being selected for the research. It gave the best technique for selecting representative sample as suggested by Kothari (1990).

Convenience sampling was adopted in selecting teachers; this method had the relative advantage of time and money inherent. Moreover the sample being selected at convenience yielded results favorable to the point of view of the research Kothari (1990).

Lastly **convenience sampling** was also used in selecting key informants this included nongovernmental organizations as well as related government agencies.

3.4 Data Collection Methods

3.4.1 Secondary Data

It entailed collection of information from already available resources. This information was sought on how strategic planning had positively or negatively influenced the sustainability of similar projects in these schools.

3.4.2 Primary Data

Primary data entailed collection of information by use of questionnaires, in depth interviews and direct observation

(i) Standard questionnaires: both open ended and structured questionnaires were used as means of obtaining comprehensive primary data from the sampled populations. Standard questionnaires were administered on sampled school pupils and teachers.

(ii) Key informant interviews: this interview was conducted on people or resource persons who had direct and supportive influence on sustaining WASH programme in schools. Included here were ministry of education and non governmental institutions and their participation in various stages of WASH program planning cycle (identification, planning, implementation, monitoring and evaluation

(iv) Observation: This was important in identifying WASH hardware which was in sustainable and hygienic condition versus those that had not with a view to coming up with the data on the challenges facing wash projects in schools

3.5 Analysis and Interpretation

All the information gathered from the study field as in questionnaires, interview and observation reports were analyzed continuously. Descriptive techniques were used to present unquantified issues. Quantitative data on the other hand were processed and analyzed using SPSS .In order to have a comprehensive analysis, the result obtained was presented by use of text, statistical tables and graphs in order to show the interrelationships of various variables as where was necessary to do so. The main relationships were to established to comparing the extent of the role of the pupils in sustaining WASH projects in Kisumu West Primary Schools.

3.6 Validity and Data Collection

The questionnaire and interview schedule was subjected to validity and reliability testing. The data collection instrument was tested in the field as a pilot study to test for the effectiveness in data collection. The pilot study aided in identifying ambiguity of questions and relevance of those questions to the answers sought. Appropriate changes were done where there was need.

3.7 Ethical Considerations

Ethical issues that require permission and clearance were handled with the ministry of Education authority before the study was launched. The work was based on informed consent and confidentiality of the respondent.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Overview

This chapter contains results and discussions on objectives of study on the role of pupils in sustaining WASH projects within primary schools in Kisumu West district

4.2 Respondents Background Information

4.2.1 Respondents Age and Educational level

In conducting this research age of respondents was of great importance, among the factors that influence beneficiary participation in safe handling of WASH project facilitating is maturity and this goes with age. Pupils in upper classes were therefore preferable since they had experience with the facilities. Majority of these respondents were between the ages 13 and 14 years however there were more male respondents compared to their female counterparts, partly contributed to their high dropout rate.

Most respondents were drawn from class 7 and 8 due to the fact that they had been in the schooling system long enough for them to have interacted with these facilities.

Table 4.1: Male Respondents Age

	Age bracket	Respondents
Male	13-15	220
	16-18	20
	18>	0

Source: Survey Data, 2013

Table 4.2: Female Respondents Age

	Age bracket	Respondents
Female	13-15	142
	16-18	8
	18>	0

Source: Survey Data, 2013

4.3 Planning Process

In the first objective of study, the researcher sought to assess the planning process and the role assigned to pupils at this stage here he sought to find out whether these roles if any contribute to sustaining of WASH projects in their schools.

To establish the first objective, respondents were required to identify from a list of tasks that the pupils could be involved in at this stage; they were grouped into needs assessment, site identification and project design and technology

The responses concerning the extent of pupil involvement in planning of WASH projects

Table 4.3: Respondent's response on the extent of pupil participation in planning process. (Figures in %}

| Planning area	Respondents	NI	DI	TOTAL
Needs assessment	Students	99	1	100
	Teachers	100	-	100
	Donors	100	-	100
Site identification	Students	99	1	100
	Teachers	99	1	100
	Donors	100	-	100
Design technology	Students	99.5	1	100
	Teachers	100	-	100
	Donors	100	-	100

Source: survey data, 213

Results above indicated that majority of respondents reported that pupils were not involved in planning stage of WASH projects

4.3.1 Extent of Pupil's Involvement in WASH Project needs assessment

Survey results indicated that 99% of the respondents who were pupils reported that fellow pupils did not participate in needs assessment, almost 100% of respondents who were teachers also admitted that they never involved pupils in

identification of needs; the same response was obtained from the donors who sponsor these projects. This implies that pupils were not only involved but were also not consulted on issues to do with needs assessment at the planning stage of WASH projects
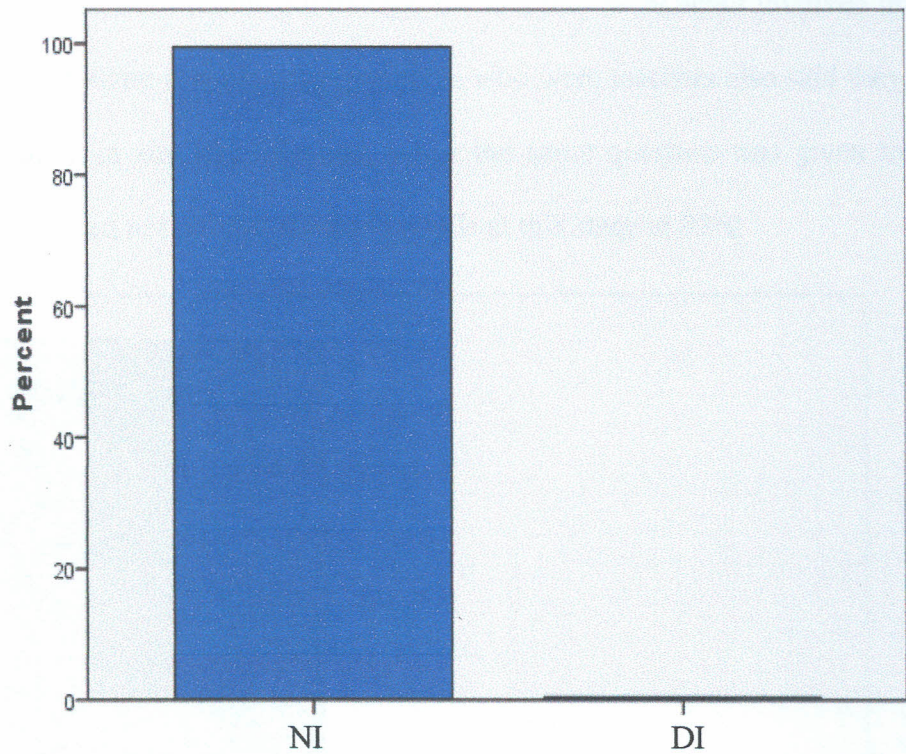
Source: Survey Data, 2013

Figure 4.1: Response from (pupil} respondents on whether fellow pupils were Involved in Needs identification

The above results is in line with Woodford Berger (1996) who says that failure of many development projects occur when beneficiaries are not involved in the needs assessment stage .The researcher holds the view that needs assessment brings in critical reflection and analysis through knowledge. It is this individual accountability of input that makes the projects last for longer. On the contrary, when beneficiaries are not involved in needs assessment, there is little achievement in equitable and sustainable project development rightly observed by Karki (2001).

4.3.2 Extent of Pupil's Involvement in Site Identification

Site identification is very important when coming up with a project, the site should be appropriate in terms of distance and security. The respondents were therefore asked whether pupils were involved in site identification. The survey results indicated that 99% of respondents who were fellow pupils reported that they were never involved in site identification. The same number of respondents who were teachers also said they did not involve pupils in site identification, when the same question was given to donors they also admitted not to have involved pupils at this stage at 99%.
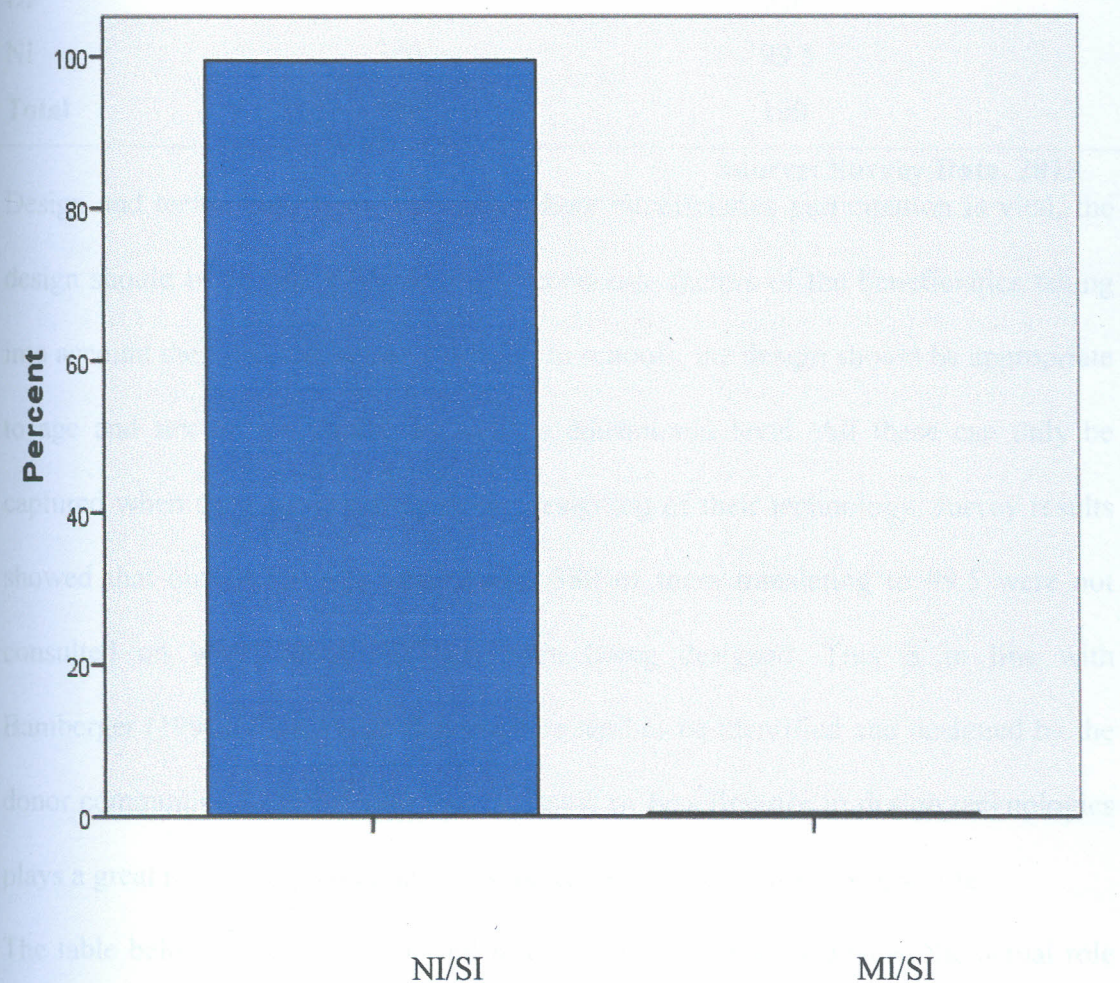

Figure 4.2: Involvements of Pupils in Site Identification
Source: Survey Data, 2013

Site identification is very important when coming up with a project, the site should be appropriate in terms of distance and security and from the results majority of respondents who were pupils admitted having been left out of site identification stage

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4.3.3 Role of Pupils in Project Design and Technology of WASH Facilities

The survey result indicated that 99.5% of respondents who were fellow pupils said they were not consulted on the design technology of these facilities; however half of the respondents were satisfied that the design technology will ensure that the facilities sustain. 100% both teacher and donor respondents admitted that pupils were not involved in design and technology of these projects

Table 4.3: Extent of Pupils role in Designing WASH Facilities

	Frequency	Percentage
DI	10	0.5
NI	380	99.5
Total	390	100

Source: Survey Data, 2013

Design and technology is another area where beneficiaries participation is vital, the design should be in line with the social economic factors of the beneficiaries taking into account their culture, sex and beliefs. In schools, the design should be appropriate to age and sex of the pupils, as well as educational level. All these can only be captured when they are involved in the designing of their technology, survey results showed that out to the 390 respondents 380 of them translating to 99.5 were not consulted on when these facilities were being designed. This is in line with Bamberger (1996) who argues that projects tend to be identified and designed by the donor community; he concludes that omission of beneficiaries in design technologies plays a great role in implementation weakness and hence shorter project life.

The table below shows the expected role of each stakeholder against the actual role they play in the planning process of WASH facilities.

Stakeholder	Assigned role	Expected role
Donors	- Provide funds - Design the facilities	- Provide funds - Consult beneficiaries on site and design
Administration	- Provide site - Consulted on design	- Provide site - Consult beneficiaries on project site and design
Beneficiaries (Pupils)	- No clear role assigned	- Consulted on site identification, and Designing technology

Source: field

From the above table it is clear that the beneficiaries were not given any clear role during the planning stages of WASH projects in this division, and this could be one of the reasons why projects were not in sustainable condition.

4.4 Implementation and Management Process

In the second objective of study, the researcher went through the implementation and management process and the role assigned to pupils at this stage, in his research question he sought to find out if these roles contribute to sustaining the life of WASH projects in their schools.

To establish the objective, respondents were required to identify from a list of tasks the extent of pupil's role in implementation and management process; they were grouped into protection and conservation, operation and maintenance as well as communication of safe hygiene practices while using these facilities To understand the role of pupils in the planning and management process of WASH projects, the researcher through a structured questionnaire asked the respondents, whether they were involved in ensuring that the wash facilities are protected, protection ensures that the facilities are safe from external inversion and use by those who were not targeted by the project, it also ensures they are safe from unilateral damage. He also

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sought to find out whether the respondents were involved in operation and maintenance of these facilities, this is because, and WASH in Schools is more than construction of facilities. In addition to sound construction with child-friendly designs, an effective WASH programmes in Schools requires adequate participatory planning and coordination among the stakeholders involved .To succeed, School WASH projects requires a strong focus on participatory planning of the operation, use and maintenance of water and sanitation facilities in the schools ensure that the sustain for long term (IRC 2010) , Lastly the researcher through structured questionnaire sought to find out whether the respondents were trained on best practices while using WASH FACILITIES, these includes training on latrine use as well as safe handling of water facilities.

The responses concerning the role of pupils in implementation and management of these projects

Table 4.4: respondents report on pupil participation in I&M, (figures in %}

I&M area	Respondents	NI	SI	DI	TOTAL
Protection	Pupils	64.1	10	25.6	100
and conservation	Teachers	68	7.5	24.5	100
	Donors	70	13.5	16	100
O&M	Pupils	64.1	-	35.9	100
	Teachers	68	2.5	24.5	100
	Donors	72	20	10	100
Communication of	Pupils	25	1O	65	100
safe hygiene practices	Teachers	15	12	73	100
	Donors	-	-	-	-

Source: survey data, 213

Results indicate that majority of respondents reported that pupils were not involved in implementation and management stage of WASH projects especially in the areas of

protection as well as operation and management of these facilities. However the respondents admitted that pupils were to a large extent engaged in communication of safe hygiene practices.

4.4.1. Level of Involvement of Pupils in Protecting and Conserving WASH Projects in Schools

From the results 64.1% of the respondents who were fellow Pupils and 68% of respondents who were teachers reported that pupils were not engaged at all in protection and conservation of WASH facilities with only 25.6% of respondents saying they were directly involved

Table4.4.1: Extent of Pupils Role in Protecting WASH Projects

	Frequency	Percentage
NI	250	64.1
DI	100	25.6
SI	40	10
`Total	390	100

Source: Survey Data, 2013

From the survey results majority of respondents who were pupils at 64.1% and 68% of respondents who were teachers admitted that pupils were not involved in protecting and conserving WASH facilities, thus they said these facilities are usually in constant use even by those who are not targeted. In instances where they were involved the level could not be to sustain the projects, this result is in line with various studies which indicate that most WASH projects are usually constructed and left in unprotected or uncovered conditions. Latrines most of the time remain unfenced and unlocked making it accessible by those who are not intended, while water facilities have their taps left unlocked leaving water to run out often

4.4.2 Extent of Pupils in Operation and Maintenance of WASH Facilities

The researcher sought to establish the level of pupil's participation in operation and maintenance of these facilities. Results indicate majority of respondents who were pupils at 64.1% and 68% who were teachers reported that pupils were not involved in operation and maintenance of these facilities were not involved, thus WASH infrastructure through our observation remained in unmaintained conditions. The respondents claimed they were not given clear channel of reporting damages or even repairing them. This led to dilapidation and eventual damage.

Table 4.4.2: Extent of Pupils Involvement in O& M

	Frequency	Percentage
DI	140	35.9
NI	250	64.1
Total	**390**	**100**

Source: Survey Data, 2013

The impact of a successful project is defined by the ability of the project to sustain. WASH in schools goes beyond construction of these facilities according to IRC (2010), they require continuous Operation and Maintenance, this ensures that they sustain. From the results majority of respondents said that they were not involved in operation and maintenance at 64.1% while most respondents at 68.2% only took part cleaning the latrines as well as water facilities cleaning is not a solution however, this is because facilities that are not in maintained conditions eventually despair, dilapidate and eventually remain in dysfunctional state. For this the researcher is of the view that even at Operation and Maintenance stage, beneficiaries are still not given more pivotal role. Shah et al (2000) recognize the great emission of beneficiaries by development organization in project implementation as the major

cause of project failures and from the results, it's clear that pupils who are the major beneficiaries are being omitted at implementation stage

4.4.3 Best Practices while using WASH Facilities.

From the research the results indicate that that majority of respondents who were pupils at 65% and 73% of respondents who were teachers admitted that pupils were engaged in communicating safe hygiene practices on how to use and maintain cleanliness of these facilities while 25% of respondents who were pupils admitted that they were not. Most training was gotten from health clubs at 53% while 45% said they learned through classroom teachings. Some 2 % of respondents got latrine training at home. Through these trainings a number of respondents cross examined expressed satisfaction that if implemented will sustain these projects

Plate2: Pupils Drawing Water to Clean Latrines

Table 4.4.3: responses from respondents (pupils} on the extent of their role in Communicating Safe Hygiene and Defecation Practices while using WASH Facilities

	Frequency	Percentage
Yes	165	65
No	98	25
Sometimes	127	1O
Total	**390**	**100**

Source: Survey Data, 2013

The following table shows the assigned role verses the expected role of each stakeholder in implementation and management of WASH projects

Stakeholder	Assigned role	Expected role
Donors	-provides support for operation and maintenance -provides support for protection of these facilities -provides support for best practices while using these facilities	-providing support as well consulting both administration and beneficiaries on management as well as best practices
Administration	-observes O&M - Trains on best practices - ensures protection	-works in partnership with beneficiaries on best ways of implementation and management as well as best practices
Beneficiaries (Pupils)	-no clear role except some training on best practices while sing wash facilities	-involved in protection, operation and maintenance as well a observation of best practices

Source: field

4.5 Monitoring and Evaluation

Monitoring and Evaluation system can serve the purpose of influencing infrastructure sustainability Barry (1997) according to him monitoring and evaluation therefore should be carried out locally as it is important to regard beneficiaries as agents who are capable of analyzing their own situations and designing their own solutions. Project monitoring provides lessons learnt during the project implementation period. By analyzing and reflecting on project performance, the project beneficiaries and stakeholders can make the necessary positive adjustments. Evaluation on the other hand serves to assess the project achievements and impact.

In regard to school WASH programme Monitoring and Evaluation should be an ongoing activity involving both the donors and the beneficiaries (Unicef 2010). Involving beneficiaries in school interventions according to the researcher should be able to promote a sense of ownership which is a prerequisite for sustainability. In Kisumu West District, the researcher envisages that the pupils be engaged as well in M & E of usage as well as operations and maintenance of WASH facilities,
Monitoring and Evaluation in such case involved use of daily structured guides here pupils are supposed to record latrine cleanliness, provision of water, water treatment and soap availability. According to plan-Kenya (2006) they are also once a week supposed to record whether any latrines, water storage vessels are in good condition, this reports should then be given to the teachers in charge of sanitation.

The researcher sought to find out whether pupils participated in monitoring and evaluation of all stage of WASH facilities he sought to find out whether pupils participated in monitoring the construction stage of these facilities, here the questioner emphasized on whether they did monitor the initial stages of these projects as well as

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the monitoring tools that they used, the researcher also sought to find out whether they did monitor if the design and technology of the facilities is appropriate to their age, sex and culture. The researcher also sought to find out whether the respondents were involved in monitoring best practices while using these facilities as well their operations and maintenance. Lastly, the researcher sought to find out whether the respondents were involved in evaluating the conditions of these facilities to assess if their role aided in sustaining these projects.

The last objective of the study was to examine the monitoring and evaluation stage process and the role played by pupils. in his research question he sought to find out if these roles contribute to sustaining the life of school WASH projects. To establish the objective, the respondents were asked to identify from M&E framework, the level of involvement of pupils the areas covered include monitoring the initial project stages, technology and design as well as behavior and practices. The responses concerning the extent of pupils involvement in M&E of WASH projects is as show below

Table 4.5 Respondents report on the pupil involvement in M&E of WASH projects (figures in %}

Level	M&E area	Respondents	Indicators				
			NI	SI	MI	DI	TOTAL
Input	Materials are of	Pupils	97	-	-	3	100
	standard	Teachers	99	-	-	1	100
	Money	Pupils	100	-	-	-	100
	appropriately spent	Teachers	100	-	-	-	100
Activity	Appropriate design	Pupils	76.9	7.7	-	15.4	100
		Teachers	80	10	-	10	100
Output	Best practices	Pupils	25.6	10	12.8	51.3	100
		Teachers	15	10	21	54	100
	O& M	Pupils	89.7	2.1	2.6	5.1	100
		Teachers	900	0.5	3.5	6	100
Outcome	Conditions	Pupils	89.7	2.6	5.1	2.6	100
		Teacher	90	5	2	3	100

Source: Survey data 2013

Results indicate that majority of respondents reported that pupils were not engaged in monitoring the initial stages of wash projects, however, at the output level, they admitted to have been involved in monitoring the best practices while using these facilities.

4.5.1. Role of Pupils in Monitoring of initial stages WASH projects

The researcher sought to know through the respondents whether pupils participated in monitoring construction of WASH infrastructure, it included identifying weather the materials used are child friendly and of right standard. Majority of respondents at 97% are not involved in monitoring the construction of these materials. Almost 100% of respondents said they were not involved in monitoring how money is spent in the construction of these facilities.

Table 4.5.1: Extent of Pupils role in Monitoring Initial Stages of WASH Facilities

	Frequency	Percentage
Yes	11	3
No	379	97
Total	390	100

Source: Survey Data, 2013

From the results, the pupils were not able to identify whether the materials used for construction are child friendly and are of right standard, finally the WASH plans are appropriate to the age of the pupils. These contravened the norms of M & E which says that it should be an ongoing activity. According to UNICEF (2010), properly designed beneficiary M & E system can serve the purpose of influencing infrastructural sustainability. On the other hand limited success of these projects attribute to failure to include the beneficiaries.

4.5.2 Role of Pupils in Monitoring technologies and Design of WASH facilities

The researcher sought to find out whether the respondents participated in monitoring the design technology of the WASH facilities. The results showed that majority of respondents who were pupils reported that fellow pupils at 76.9% and teachers at 8O% said they were not involved monitoring the design and technology of these WASH facilities, 15.4% said they were deeply involved.

Table 4.5.2: Extent of Pupil's Role in Monitoring the Design Technology of WASH Facilities

	Frequency	Percentage
Yes	60	15.4
No	300	76.9
Sometimes	30	7.7
Total	**390**	**100**

Source: Survey Data, 2013

This result reveals that pupils who are the main beneficiaries still majorly left out at this stage of M & E, however it is important that successful WASH projects require strong participation in monitoring their design technology. Child friendly designs can only be satisfied if pupils themselves participate through their representatives. This result also concurs with various studies. According to Bamberger (1996) pupils are rarely involved in monitoring designing stages of the project. According to him project design and technologies are monitored by the donor community in collaboration with school administration, under these arrangements, the monitoring schedules are done in a rigid way making it difficult for beneficiaries to play significant role. This therefore limits the success or life of there because of how degree of ownership.

4.5.3 Pupils role in Monitoring behavior and practices while using WASH facilities.

Most school water and sanitation programs focus on construction targets, leaving out aspects of behavior change. Best practices leads to improved and consistent use and maintenance of these facilities. Burger S.L. (2000). The researcher through a structured questionnaire asked the respondents to state weather they participated in monitoring at these stages, reasons for participation as well design of monitoring and evaluation tools used. At these stage majority of respondents who were pupils at 51.3% and 54% who were teachers reported that pupils participated monitoring of respondents said they participated in monitoring and evaluation of WASH facilities while 25.6% said they did not participate. Those who did monitor the behavior and practices of fellow pupils admitted doing so in their capacity as prefects in charge of sanitation.

Table 4.5.3: Extent of pupil's role in Monitoring Safe Hygiene and Defecation practices of pupils while using WASH facilities

	Frequency	Percentage
Yes	200	51.3
No	100	25.6
Often	50	12.8
Sometimes	40	10.3
Total	290	100

Source: Survey Data, 2013

4.5.4 Extent of the role of pupils in Monitoring Operation and Maintenance of WASH facilities

Construction of facilities seems to be the main point of School WASH projects, experience shows clearly that mere provision of service could not sustain these

facilities. To sustain these projects a clear monitoring policy and tools ought to be developed to ensure problems related to incorrect use and poor maintenance do not occur (Moojiman & Zomerplaag, 2004). Through a structured questionnaire, the researcher wanted to establish whether the respondents were involved in monitoring the operation and maintenance of WASH facilities in schools. From the results only 10% of the respondents were involved. A majority of respondents who pupils admitted that at 89.7% said they were not involved in monitoring the conditions of this infrastructure.

Table 4.5.4: Extent pupil involvement in Monitoring O&M of WASH facilities

	Frequency	Percentage
Yes	20	5.1
No	350	89.7
Often	10	2.6
Sometimes	8	2.1
Total	390	100

Source: Survey Data, 2013

Construction of facilities seems to be the main point of School WASH projects, experience shows clearly that mere provision of service could not sustain these facilities.).The researcher also sought to find out whether pupils were involved in monitoring O & M of WASH facilities and the contribution of their role in sustaining this projects. in his argument, sustaining projects requires a clear monitoring policy and tools ought to be developed to ensure problems related to misuse and poor maintenance do not occur. His argument is supported by Moojiman and Zomerplaag (2004) who say that construction of facilities cannot be the only focus, but that to sustain the facilities bottoms up and properly designed beneficiary M & E system on O & M is mandatory. However KISUMU WEST district, the results show that an overwhelming 89.7% of respondents were not involved in monitoring O & M of

WASH facilities, in their argument this activities are not carried at all or in some instances they do occur minimally it's this omission that the researcher envisages contribute to inconsistent and poorly maintained state leading to a shorter lifespan of these projects.

4.5.5 Role of Pupils in Evaluating WASH Facilities

Majority of respondents were not involved in evaluating the conditions of these facilities, only 2.6% of the respondents claimed to be evaluating the conditions while 89.7% said they were not involved

Table 4.5.5: Evaluating Infrastructural Conditions of WASH Facilities

	Frequency	Percentage
Yes	10	2.6
No	350	89.7
Often	20	5.1
Sometimes	10	2.6
Total	390	100

Source: Survey Data, 2013

Evaluation serves to assess the project achievements and impact in relation to effectiveness and sustainability. Evaluation serves to assess the project achievements and impact in relation to relevance, efficiency, effectiveness and sustainability according to (Blackman, 2003;CORE, 2006; Twigg,2007;ITAD,2000. However from the results this prove not to be the case. Majority of respondents at 89.7% said they did not evaluate the conditions while only 2.6% said they did.

The following table shows the assigned role verses the expected role of each stakeholder in Monitoring and Evaluation of WASH projects

Stakeholder	Assigned role	Expected role
Donors	Monitors operation and maintenance -Provides support for protection of these facilities -Provides support for best practices while using these facilities	-providing support as well consulting both administration and beneficiaries on monitoring guides as well as best practices
Administration	-Monitors O&M - Monitors best practices - Monitors protection	-continuous M&E of wash facilities
Beneficiaries (Pupils)	-no clear role except some training on monitoring and evaluation of best practices while sing wash facilities	-involved in monitoring protection, operation and maintenance as well as observation of best practices

Source: field

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter covers summary of findings conclusion and recommendation.

5.2 Summary of Findings

The 1st objective was to examine the WASH planning process, and the role assigned to pupils at this stage, it's this role that the researcher concluded contribute to sustaining WASH projects. The planning process here includes site identification, project initiation and design specifications. Here the result revealed that pupils were not involved in these process, at project initiation, 97.2% of the respondents admitted they were never involved, at site identification, 99 % of respondents admitted they were never involved while in design specification 99.5% of respondents admitted that they were never involved.

The second objective was to assess the role of pupils in Implementation and Management process and the role assigned to pupils at this stage, which roles contribute to sustaining WASH projects.

The implementation process here includes protection and conservation of these facilities, operation and maintenance as well as observation of best practices while using these facilities. Here the result revealed that pupils were to allow extent involved in these activities.

From the results majority of respondents at 51.3% admitted they were not involved in protecting and conserving WASH projects while some respondents admitted to have been involved at 48.7%.

In operation and maintenance, pupils' participation still remained low with results showing that 64.1% were not involved and only 35% involved. The research also

showed that majority of respondents at 65% were trained on best practices best practices while using these facilities and mainly done to health and club members. some respondents got the training in classes at 45% while only 2% got training at home, these trainings however failed to be implemented.

The third objective was to examine the Monitoring and Evaluation process and the role assigned to pupils here, it's these roles that aid in sustaining WASH projects. The roles here include monitoring all the stages of the project, from the project site identification through to design technology, best hygiene and defecation practices, and finally Operation and Maintenance. Evaluation and reporting of infrastructural conditions was also part of the findings.

Results showed that they played minimal role in monitoring the initial stages of WASH projects with majority of 97% saying they were not involved in monitoring the construction process of the facilities. Almost 100% said they are not a monitoring how money was spent on purchasing materials for these projects.

At design and technology stage results showed that 76.9% of respondents confirmed that they did not monitor the design and technology to ascertain its appropriateness with the level/age or class of beneficiaries.

Interestingly 51.3% of respondents said they monitored safe hygiene and defecation practices; however they were mostly prefects in charge of sanitation. The conditions of infrastructure also came under study, here 89.7% of respondents said they were not involved in monitoring the Operation and Maintenance of these facilities.

Lastly most respondents claimed they were not involved in evaluating the state or conditions of these facilities.

5.3 Conclusions

The study examined all the planning stages of WASH projects and the role of pupils at each stage. The study established that 97% of respondents who were pupils were not involved in the planning stages of WASH projects. This is in line with Bamberger (1996). He says that most projects tend to be identified and designed by the donor community leaving out the beneficiaries who will implement the projects. According to Shah *et al* (2000) omitting beneficiaries form planning process has made most projects not to sustain in the past. Based on the findings it can be concluded that pupil's participation in planning school WASH project is very low at planning stages.

In the planning and management stage, all the stages were looked at including, protection of WASH facilities, operation and maintenance as well as communicating behavior change. The study revealed that overall 40% of respondents were involved in the implementation and management of WASH facilities with majority of respondents at 65% being involved in communicating behavior change and good practices while using these facilities only 10% and 3% were involved in protection of WASH projects and O& M respectively while 22% were not involved at all in the implementation and management process.

All the stages of Monitoring and Evaluation were undertaken including planning, implementation as well as management. The study revealed that a majority of respondents at 97.1% did not take part in monitoring initial planning stages of WASH projects. However, higher percentages of respondents at 51.3% admitted having been involved in monitoring safe hygiene and defecation practices while using these facilities. These respondents were mostly prefects in charge of sanitation.

5.4 Recommendations

It is the recommendation of this study that WASH projects should actively involve pupils in project identification and site selection, this ensures project ownership from the beginning thereby instilling a sense of ownership and hence sustainability.

Most projects sustain if they are properly implemented and managed. By Involving pupils actively in implementation and management stages i.e. protection, operation and maintenance as well as communicating safe hygiene and defecation practices while using these facilities, entrenches a sense of ownership and responsibility in them Creating a 'school-based indicators' monitoring system at the school level may be one of the means to improve school WASH hardware conditions (IRC and UNICEF, 2007). To sustain project facilities, preconditions and leading indicators that are practical, relevant, and actionable should be identified at project outset. Implementing organizations need to ensure routine monitoring systems are in place and mechanisms exist to identify problems in the system and, more importantly, to solve these problems. Likewise, systems of accountability for school community leadership, government and nongovernmental actors need to be established so that all stakeholders can maintain the components that fall within their sphere of responsibility. It is hoped that upcoming school WASH programmes can use the

The research results show that there is no clear system in place for pupils to monitor progress and the process of utilization of WASH facilities; however other related research shows that there is benefit in using child based approaches in monitoring effectiveness of school WASH. This can be done by developing more vibrant and self monitoring school health clubs (SHCs) and data collection system such as Education

Management Information System (EMIS). Findings suggests that pupil participation can be sustained through enabling a sense of pride by ensuring their efforts are met with improvements in the school's WASH program, although additional research could help determine whether pupils would need additional incentives to continue monitoring in the long term

During the research it was also noted that the school surrounding community were not actively involved in all stages of WASH projects. They only admitted to have been involved only at the initial stages of the project. Community involvement beyond planning stage must therefore be addressed if schools are to sustain WASH projects.

5.5 Recommendation for Further Research

The research result reveals that pupils are to a very low extent actively involved in activities that sustain WASH projects. Research is therefore needed to be carried out to establish factors that limit the role of pupil's participation in sustaining WASH projects.

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