

**FACTORS AFFECTING SUSTAINABILITY OF DONOR FUNDED WATER
AND SANITATION PROJECTS. A CASE STUDY OF TANA NORTH WATER
AND SANITATION PROJECT.**

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**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF MANAGEMENT
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DECLARATION

This Research Project report is my original work and has not been presented for a degree in any other University.

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DEDICATION

First and foremost, I Thank Almighty God for His provision and protection everywhere and in every way. This Research Project is dedicated to my dear family specially my wife Tume and my daughter Thansa. I also remember my friends and colleagues for their guidance and support.

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I wish to acknowledge my Supervisor Dr. Leonard Wambua for being patient and providing guidance through-out the process of writing this research project. My acknowledgement goes to Management University of Africa for granting me a chance to undertake a degree course in their Institution.

ABSTRACT

The research project sought to find out factors affecting sustainability of donor funded water and sanitation projects. With the indigenous knowledge and technical know-how on water points construction, administration, operation and maintenance fading at the emergence of free hand out propagated by foreign aid. Kenya ought to emphasis on full participation of beneficiary on their project to restore skills, acquire ownership and moreover sustainability. The goal of the research was to know the extent of stakeholder engagements by the project, understand sustainability measures to put in place, political good will gained, to check availability of funds for development and effect of management skills in the project. Community contribution and political challenges encountered were investigated. Target population was employees of TWSP situated in Tana North Sub-County. All 34 staff were picked for study since the population is too small for sampling. The researcher adopted census. Description of Census is the practice of procedurally obtaining and jotting or recording data concerning the groups of a given people or inhabitants/populace. A questionnaire was administered as an instrument for data collection. Data was picked and measured in order to answer research tests. The Statistical Packages for Social Sciences (SPSS) was administered to carry out the analysis of the data and the findings presented in tables and charts. In budgeting and implementing of it's project the government of Kenya does not prioritize sanitation and water project across rural-remote countryside of Kenya. Even, in instances it carried out, common citizen are not thoroughly engaged. Therefore, leaving a huge sustainability discrepancy. Researcher recommends fully participation, involvement and inclusion of beneficiary in order to yield ownership and ultimately sustainability.

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ACRONYMS AND ABBREVIATIONS

| | | |
|--------|---|---|
| ADB | : | Africa Development Bank |
| DFI | : | Development Finance International |
| EAC | : | East Africa Community |
| IFAD | : | International Fund for Agricultural Development |
| INGOs | : | International Non-Governmental Organizations |
| NGOs | : | Non-Governmental Organizations |
| OECD | : | Organization for Economic Co-operation and Development |
| PRA | : | Participatory Rural Appraisal |
| SDD | : | Social Dimensions of Development |
| SDG | : | Sustainable Development Goal |
| SPSS | : | Statistical Package for Social Sciences |
| TWSP | : | Tana north Water and Sanitation Project |
| UNDP | : | United Nation Development Program |
| UNICEF | : | United Nation Children’s Fund |
| UN | : | United Nations |
| US\$ | : | United States Dollar |
| WASH | : | Water and Sanitation Hygiene |
| WSP | : | Water and Sanitation Program |

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The chapter contains background of the study, statement of the problem, objectives of the study and research questions related to sustainable development.

1.1 Background

In universal standard Kenya is rated among progressive countries in terms of economic growth, here at home, a lot more needs to be done by alleviating poverty and improving livelihood of many weak and feeble families both in the informal settlement of cities and rural country side. It was estimated that half of the projected 43 million citizens live from hand to mouth; means below poverty line or cannot afford the required nutrition for the daily meal. Poverty, food insecurity and high illiteracy rate are severe in the country, majorly in rural areas, that is acutely contributed by prolonged and persistent dry period. Environmental degradation especially poor water management, severe soil erosion, declining soil fertility and land depletion is main contributor to extreme and abject poverty in rural Kenya (IFAD,2016).

Understanding of the problem, suggest lack of sustainable development means low quality of life and low standard of living. The absence of sustainable development has toll on individuals and family's wellbeing. The marks, signs and symptoms of it are high rate of illiteracy, low life expectancy, poor or no infrastructure, starvation, high dependency on relief aid for survival in terms of food and water hence creating dependency syndrome.

These robs people of freedom of choice, binds with shackles of servitude, denies means and ways of self-sustenance(UNDP,2013).

Universal acceptable values of development are life-sustenance, esteem and freedom. Life-sustenance implies protection against defenselessness, access to food and drink, prolonged life and nutrition. All human beings should be accorded esteem. Every individual has right to dignity, respect, honour and recognition which translates to esteem. True and real development presents people with freedom. Sustainable development free human beings from servitude. The ancient proverb ‘we do not inherit the earth from our ancestors; we borrow it from our children’. The proverb shows that the ancestors handed over the earth to this generation in good order, though much progress on development has not been achieved during those centuries (Todaro& Smith, 2009).

Assumptions on genesis of the problem are emergence of globalization, living for today, poor transition from tradition to modern era, unawareness. Emergence of globalization has it shares of contribution to poor sustainable development. With civilization; begun competition for wealth, the fittest won and the weakest fall-out. The greed that engulfed high and mighty while scrambling for resources to create wealth, blinded the civilized world to foresaw the unsustainability of development that lied ahead (Hodge et al, 2013).

Majority of population affected by unsustainable development live in underdeveloped countries around the world. Most of whom live from hand to mouth; with no job security. They are so engrossed into the toil of each day with no chance and with no opportunity of planning for future (Fields, 2011).

When the modern era set in, those lagging behind today were not inducted into new period. Thus, their caravan had left tradition era yet it has not arrived in modern era just trapped in transition period. Wallowing in transition period has created ignorance among underdevelopment population of the world(UNDP,2013). Successive authorities in affected states have not created necessary awareness to prepare its citizen for modern era. Authority's negligence is partly to blame for unsustainable development that befall their respective states (Mugwiji, 2016).

The United Nations World commission on environment and development in 1987 defines sustainable development to be 'satisfying the wants and desires of the current generation while at the same time not interfering with the capability of the off-springs to satisfy desires and wants using the same resource' (Brundtland Commission, 1987). The developing world had kept the record of steady change and progress over the past century. Though, the record set is admirable, about 800million people were choked and stuck in absolute poverty, resulting in malnutrition, high illiteracy, disease, squalid, and filthy surroundings, high infant mortality rate, and low life expectancy. These deplorable state is below any reasonable definition of human decency and respect (Chambers, 1983).

Foreign aid to a tune of over 80% finances the budget of several Africa countries of development projects. Much of what finances agriculture, education and health comes from' international donors. This kind of trend has plunge these countries into dependency syndrome. Africa for sure is endowed with resources but devoid of good governance. Africa's leadership is so poor that cannot provide it's citizen even with basic necessities for survival. The basic needs includes; food, shelter, clothe, heal, clean air and ability to defend oneself. Without it one has very little chance of long term survival. It is shameful

that as a continent we continuously depend on handouts even for basic needs (Boateng,2012).

Sustainability always has long term impact on environmental, social, economic, political well-being of society in general. The lack of it brings all vices known in human history. The challenges of acute and abject poverty, high rate of illiteracy level, poor and zero access to health facilities and medical care. Others are food insecurity, tribal conflicts, recurrent and persistent drought and marginalization had stretched the ever-widening gap of poverty between the have and the have-not in rural areas. Even in the new era of devolution the fund intended for development seems to have sunk into bottomless pit of corruption and despondency (Shepherd, et al, 2014).

1.1.1 Tana North Water and Sanitation Project (TWSP)

It is a donor funded project. According to their project document, Tana north water and sanitation project (TWSP) overall goal is to improve livelihood. The project has two components namely Health and sanitation and water development. The methodology of the project is community based. It emphasis that community is the owner and implementer of the project while the project supports with skills and resources where it is lacking. The target group are people living within sixty-kilometer radius of Tana north sub-county. The project plans to phase out in a period of ten to fifteen years.

This research will find out factors affecting sustainable development on Donor funded Water and Sanitation Projects.

1.2 Statement of the problem

Sustainability of donor funded water and sanitation projects and availability of funds to execute it is huge relief to the suffering world. Kenya's staggering 47million population of which 37 percent make use of unprotected, polluted sources of water including; small ponds, dry river basin shallow wells and seasonal or permanent rivers, at the same time 70 percent of Kenyan citizen use dilapidated and unrecommended sanitation practices. Among others, these shortcomings and deplorable circumstance were particularly available in the country side and informal settlement of the cities. As for Kenya water service providers only 9 are functional and operational while the remaining 46 are non-operational. Therefore, the task of finding better solutions to water needs are left to the people themselves. (water.org, 2017).

Political good will can fill the gap by prioritizing water and sanitation needs. The gap analysis contrasts Kenya's practically available water resources with current and projected water demands. Available water supply consists of total surface water runoff and groundwater recharge, distribution and conveyance losses and the amount of surface water required to maintain environmental flows. Based on current water demand and national development plans, it is estimated that Kenya could face a 31 percent gap between water demand and practically available water supply by 2030 (2030 Water Resource group, 2015).

The case study emphasizes the vitalness of stakeholder engagements in the water and sanitation project. About water projects in Kwale county the author narrates that there was lack of proper community participation in all the stages within the project life cycle, high poverty levels within the project area hinders revenue collections, inadequate

awareness over the water sector reforms in rural areas with politics and socio-cultural ethics playing key roles within community based water supply projects. The author concludes that the lack of adequate community participation in all the stages has led to lack of positive attention towards the challenges facing it. The high poverty levels within the semi-arid regions of Kenya has also affected water supply development in these areas (Mdoe, 2011).

For a nation to meet its objectives and goals, sustainable development is crucial. Sustainability of Donor Projects should also be realized through all pillars; environment protection, social, economic and political. Sustainability of water project is achieved through full participation and contribution which results in ownership. To have target beneficiary participate in the project has become an uphill task. Relief aid is meant to alleviate the suffering of the people affected by prolonged drought through humanitarian action in arid and semi-arid of Kenya. Though it was intended for good purpose, it has breed new challenge such as ‘dependency syndrome’. The challenges of water project like Tana north water and sanitation project is facing include; demand for incentives, lack of skills to handle equipment and tasks by target group. These delays project progress, further hindering the achievement of expected results within anticipated timeframe.

Factors affecting donor funded project to achieve sustainable development is critical development problem. The research seeks to address the problem through the proposed task.

1.3 Objectives

The general objective is to establish factors affecting sustainable development of donor funded water and sanitation projects.

1.3.1 Specific Objectives

- i). To examine the effects of stakeholder's engagements on sustainability of TWSP Water and sanitation Project
- ii). To determine the challenges faced by TWSP in ensuring the sustainability of water and sanitation project
- iii). To determine the role of funding in ensuring sustainability of TWSP water and sanitation project
- iv). To explore the effect of political good will on the sustainability of TWSP water and sanitation project
- v). To determine the role of management skills in ensuring sustainability of TWSP water and sanitation project

1.4 Research Questions

The following questions were formulated to achieve the stated objectives.

- i). what is the effect of stakeholder's engagements on sustainability of TWSP water and sanitation project?
- ii). What challenges does TWSP face on ensuring sustainability of TWSP water and sanitation projects?
- iii). How does the role of funding ensure sustainability of TWSP water and sanitation projects?

iv). what is the effect of political good will on the sustainability of TWSP water and sanitation project?

v). How can one determine the role of management skills in ensuring sustainability of TWSP water and sanitation project?

1.5 Justification or Significance of Study

1.5.1 Policy Makers in Kenya

The research will be useful to those mandated with enacting political, management, financial and administrative mechanisms to achieve explicit goals in Kenya.

This research should make contribution to policy makers especially those mandated with sustainable development in rural Kenya.

1.5.2 Development Agencies in Kenya

Development agencies focusing on donor funded water and sanitation projects should find this research useful in understanding sustainable development.

Government agencies, donor funded projects and community-based organizations should know the challenges encountered by such projects in Kenya.

1.5.3 Kenyan citizen

The larger Kenyans will understand and get to know the importance of such information that concerns sustainable development on donor funded projects. This information will in its own way contribute to the vision 2030 that all Kenyans are looking up to.

1.6 Scope

The study is carried out in the year 2017. The study focus will be Tana north Water and Sanitation Project situated in rural area of Tana north sub-county.

The target population are employees of TWSP project based in rural area of Tana north sub-county. The choice of TWSP was because of organization policy and practice to improve livelihoods of community which points towards sustainable development.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews theoretical literature and empirical literature, discusses summary and research gaps. In the chapter are also conceptual framework and operationalization of the variables.

2.1 Theoretical Literature Review

The 21st era or century has a slogan for continuity also called Sustainability. This straddles the present and the future justice, equity, health and making wealth the indicator for societal evolution where natural environment and culture attainments are well kept in preserved manner for the coming age. It changed perception of scholars mainly because it involves on the very basic and vital things in life that defines our hopes and fears. As a result, in the past 150 years determination for economic development and growth, political sanity and equity of social life has been a major concern (Dyllicket'al, 2002). The anxiety on ability of ecosystem continuity is connected to the present chief shortcomings mankind is facing. Though a huge effort was made in the past decades on major trio problems facing humanity, a consensus between politicians, NGOs and business leaders was realized in 1992 Earth Summit in Rio, that the three problems are weaved and cannot be solved as stand alone. (Dyllicket'al, 2002).

Satisfying basic wants and desires is beyond just economic growth of a nation, but implies a guarantee that the majority poor receive their wealth contribution portion to ignite, maintain and continue development momentum. Broad decision making means wider citizen participation in decision made to be guided by political systems locally and

internationally. For the purpose of sustainability, the world wealthy class adapt ways of life within the means of ecological system – in terms of energy use and resources that are non-renewable. Higher population suppress already limited resource, undermining the living conditions, as such sustainability of development realization requires that population proportion be adjusted to potential ecosystem production for harmony (Brundtland Commission, 1987).

2.1.1 Theory of Sustainability

The phrase sustainability of development had gotten wider attention in numerous domains: in scientific discourses, in daily life practices, in international negotiations, in local policy measures, in marketing, in business. Even though the term “sustainability” has saturated the arena of both science and society, the work on theories of sustainable development has attracted lesser attention from scholars and researchers in different field. Which means that documents on theories of sustainable development is almost non-existence. (Judith et al 2015).

Jennifer et al 2007 of the Portland State University recorded that theories such as ‘Early community development model’,” Popular sustainability theory’ ‘ideal’ scientific model as evolving sustainability theories.

2.1.2 Early community development model

Allen & David, (2007), states that environment, society and economy are studied as separate disciplines. According Allen et al, the trio forms circles of influence in sustainable development theory.

Basiago,(1999), confirms that by ‘integrating’ and ‘interlinking’ economic, social and environmental ‘sustainability’ negative synergies can be halted, positive synergies nurtured, and real development actualized. Economic, social, and environmental ‘sustainability’ form elements of a dynamic system. For ‘sustainable development’ to flourish the quest for it cannot be done in isolation.

Basiago explains theories on economic, social and environmental sustainability as follows:

2.1.2 Economic sustainability in development theory

‘Economic sustainability’ suggests satisfactory production process that meets the present consumption demand without sabotaging the needs for future. The ‘sustainability’ that ‘economic sustainability’ thrives for is the ‘sustainability’ of the economic system itself (Basiago,1999).

2.1.3 Social sustainability in development theory

In the most basic words, ‘social sustainability’ is explained as a process of societal corporation that improves livelihood. It can also be said that ‘social sustainability’ forms a connection between societal circumstances such as poverty and environmental decay.

The theory of ‘social sustainability’ assumes that the alleviation of poverty need does not involve environmental decline. The purpose of ‘social sustainability’ is to alleviate poverty inside the existing resource base of a society (Basiago,1999).

2.1.4 Environmental sustainability in development theory

‘Environmental sustainability’ necessitates continuing natural capital as an economy feeder termed as ‘the sources’ and an extractor termed as ‘the sinks’ of economic product

termed as ‘the wastes’ or refuse. At the ‘source site’, produce rates, of resources, must be kept within rejuvenation rates. To allow the capacity of the environment to assimilate refuse, at the ‘sink site’, waste discharges from industrial production must be controlled (Basiago,1999).

2.2 Empirical Literature Review

2.2.1 Stakeholders engagements

Generally accepted vital human development actions are drinking clean water, proper sanitation and good hygiene practices. Accordingly, in 2010 the UN General Assembly approved a resolution acknowledging use of safe water for drinking and sanitation facility as a right for every individual human being. As well Kenya in its new constitution recognized water and sanitation as a human right. Impacts stimulated by use of water supply and sanitation services on the wellbeing of the population, is nearly related with poverty alleviation and affects national development in terms of costs of health service, productivity and achievement of education. Retarded progress and problems associated with lack or poor access to water and sanitation services and particularly zero progress with sanitation will consequently pose negative impact on environment and water quality(UNDP,2013). Water being a human right, an active participation in the process of decision making enables them to embrace the water project as their own, and thus, makes them willing to go an extra-mile to ensure success (Ogendi& Isaac, 2009).

Public policy making is trending away from the old ‘top -down hierarchical model’ , which exercise sovereign control on the individuals and civil society, to a model that is more transparent and holistic which involves public, non-state actors (community based organizations, private sector and not-for-profit organizations). The changes that the Water

sector had undergone, has resulted in multi-level, polycentric governance replacing the traditional role of 'government 'as the single decision-making authority. This transition recognizes the important role that stakeholders play by contributing to water management from their different institutional settings (OECD, 2015).

World Bank, (1995), report states that for target group to influence decisions concerning the type of service to be provided, participate in project implementation, and give their contribution of cash, labor and materials, majority of projects has to set up water management committee or water users associations. Continuity of community participation in operation and maintenance of systems is required, though this is more difficult and experience is minimal. Discovery of workable structures calls for adequate time allocation during project design phase. To match what community members are comfortable with, institutional arrangements need to be adjusted for flexibility purposes in order to accommodate and adopt community level project design. Community members involvement and inclusion gives beneficiaries freedom to propose changes during the period of project implementation in terms of by-laws or rules, and routine procedures, structures of management, responsibilities assignments between alternative organizations or firms, or service type to be rendered. Beneficiary community's choice and freedom over the type and level of water and sanitation service they want, based on their needs, priorities and financial situations means the projects are demand driven. Sufficient information about options, their respective costs, and other implications allows beneficiaries to make informed decision (World Bank, 2000).

Majority of people in country side or rural setting, vulnerable men and women turn their hands to a number of things: the scale enterprise owners survive on a range of petty

business work, which may include small-subsistent farming. More than often, most people, engage in periodic movement to meet farming demand is a regular and frequent action taken out of despair by few or whole family (Chambers, 1983). Anywhere, businesses owned, other daily work produce low output hence scanty earnings: cultivating food producing plants along available and affordable farm space; unskilled worker in farming period; homestead labour and petty activities; semi-contract job in common facilities; catching fish, wild poaching, collecting, sifting even foraging; livestock husbandry be it for someone else or for themselves which includes; the goats, the sheep, the pigs, the hens, the ducks, the pigeons, the turkeys, the rabbits; the bee-keeping; by their personal or lent, rented, loaned horse, camel, the mule, the donkey, the bullock also the cart, the bicycle cart, handcart, also bicycle for transportation of the sea food, the saleable insects, the people, the vegetables, the crops, the plant produce, the trees , the herbal plants, the locally available roofing covering materials, the firewood, buildings posts; charcoal burning and exchange for money, the rope, the skin products, the woven mats, the nets, the clay pans, the bricks as well peddling; the semi-skilled labour; the metal work, the construction, the carpentry, the covering roof, the asking for alms; also stealing. They have to, to survive (Chambers, 1983). Therefore, target group should be given space to participate in finding solution to suffering that encounters them.

2.2.2 Funding Adequacy

Dig Deep, (2017), explains hard work and challenges that comes with funding for projects such as water and sanitation. By whatever means it is worth noting to hold someone a hand and help climb out of the ditch of poverty and despondency. No one is an island we all need each other's support in times of need. Service to humanity entails helping the

needy and saving the lives. It was estimated that 10million population of rural Kenya have no access to safe water. The water sources are unprotected, polluted and often transmit infections and diseases. School aged girls and boys spend hours of the day in search of water, therefore interrupting their education which will contribute illiteracy. Mostly, homestead in the rural areas have no pit latrines and sanitation facilities. Therefore, giving towards this noble task be private organization, individuals, government or foreign aid will solve the situation. Such donation will assist in construction of water points with safe water for domestic use, construction of toilets and sanitation facilities. These activities will ultimately reduce disease infection, save wasted time and finally alleviate poverty.

Now a day's funds come with a lot of demands and requirement from the back donor, making, financial request an uphill and sometimes unfruitful task. The fundraisers, are creating several means and ways of garnering donation to implement projects (Dig Deep, 2017).

The Kenya government has made applaudable thrive to alleviate poverty and improve well-being of Kenyans in general. Some of the current worthy to note approaches taken include: The Social Dimensions of Development (SDD) programme. The SDD programme launched in 1994 acknowledged that the economic and the institutional reforms of the 1980s minimized the provision of basic needs for the poor, contributed to the loss of jobs, abolishment of purchasing power and reduction/removal of a series of important government aids (Gonzalez, 2017).

The program was developed to cushion the poor against the hostile effects created by the economic reforms of the 1980s. Though the government showed commitment to the SDD programme, by allocating of KShs 5.58 million in the 1994/95 budget, the funds were diverted and a significant amount of the money was spent on unintended non-poverty alleviation projects. Therefore, the poor has not benefited or did not feel its impact and a greater number of needy drifted into poverty (Gonzalez, 2017).

Currently, the major irony of aid is that, though fund flows are growing and players are increasing, relief reduced in relatively many states. One such Country is Kenya: several emerging group of actors are in relief platform of the Country, hence growing donor fatigue is the outcome. Moreover, the country is suffering from donor instability because of donors abrupt cutting of funds. The correlation of Kenya with foreign states is mild; this is because of mix-ups on the functions of relief in the economic development of east African community. The first is that Kenya does not depend mainly on aid (World Bank, 2011). In comparison to above 40 percent in other EAC countries, just 15 percent of foreign aid is included in Kenya's development budget. The second, reason is that finance control tool of Kenya are so fragile to handle donor funds or direct budget. For this reasons, donors devised two ways of channeling their resources either financing a project, that is tying to a specific work for instances rehabilitation or construction of roads or power energy plant, construction of water point or support the government budget, means channeling of cash straight into the Treasury in support of government expenditure via the national budget. The thorn in the flesh for donors is their perception that "corruption with impunity" still exist and flourishes in Kenya, though a public financial management architecture has been greatly improved over time. Thirdly, it is recommended that for the

project outcome to be realized it should be restricted or 'ring-fenced' from government bureaucracy. To achieve numerous benefits the project has to be small and focused. Small project have ability to spur or stimulate innovation and reach isolated communities. when donors provide funding on budget, it is for the benefit of the common man that the donated money is spent on the intended and planned purposes (World Bank, 2011).

Water and sanitation projects funds can be received from many sources. Through a well scrutinized and planned manner, at the capacity of the particular project, donations may be given from four main sources. One is service users. Second, source is taxpayers through the government budget, third is participation by private entity or individual and the fourth is outside source such as NGOs, international lending institution, INGOs and philanthropic organisations. The necessity for exterior financing comes when no other approach – like contribution by the beneficiaries, government allocation or public private partnership would not be possible. Outside funding has definite start and the end that financing for a limited period of time and in accordance to rules, procedures and demands of foreign organizations. To cushion projects from collapsing after the external finances dry up, the issue of long term financial feasibility should be taken into consideration right from planning stage (WSP,2004).

For Sustainable Development Goal targets to be achieved huge input is required in relation to finance and resources. According to the World Bank estimation made globally, the present WASH financing level is just enough to cover the set-up expenses attaining elementary worldwide aquatic, proper sanitation and hygiene services come the year 2030 (UN,2017). To Meet SDG targets like projected achievement of universal and equitable

access to safe and affordable drinking-water for all as stated in (Target 6.1) and also achieving access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations (Target 6.2) will require a large capital investments to the tune of US\$ 114 billion per year, excluding operations and maintenance costs, which are main for sustainable services. The financial constraint of fulfilling the SDGs becomes difficult question on which options and opportunities exist to fill the funding gaps. Just to mention the nature of financing mechanisms, for instance, using a mix of public and private financing, how to multiply financial productivity in infrastructure development, delivery of service and management of asset, and viable approaches to tariff-setting and subsidies that meet the dilemma between cost turnover and affordability from economics and human rights perspectives (UN,2017)

2.2.3. Political good will

Robust political back-up and pledge from the top levels of national and local government are of paramount for sanitation programs to be successful, particularly where party-political and societal sensitivity happens. Political will is a main constraint to implementing sanitation projects and national wide sanitation program success relies mainly on commitment, co-ordination and co-operation of government, local authorities and service providers among other key role players. Some projects, commit political support from county government authorities by entering a formal memorandum of understanding to ensure commitment to the project. A relevant department should be identified from onset to take lead and make sure effective interdepartmental co-ordination and co-operation. (ADB,2015).

The success of water and sanitation projects in Rwanda was attributed to among other things political will from the top and at all levels. Without Political good will even institutional framework, and clear, feasible policies and strategies, alone, cannot underpin Rwanda's success in creating real change in sector of water and sanitation, and particularly the sanitation (DFI,2012).

It is vital to raise your voice and be heard concerning issues that affects your daily life. People make political decisions that affect lives of many. Majority of people perceive politics and laws being made as government owned, though there is some truth in that, it is much more complicated. Each and every law that is enacted have influence and effect on people of all walks of life. Every so often the decisions will affect people negatively. Each vote that is cast will either break people or make people (Mortensen,2016). For instance, in Kenya a lot of funds intended for development, be it water and sanitation or any other project is politically invented. Each political office has huge chunk of fund allocated to it. The fund is then distributed at free will of the politician in charge.

2.2.4. Training/Skills

In Kenya, there is a substantive human resources capacity gap in WASH, which will only widen with population growth and heightened service quality benchmarks and coverage targets introduced with the Strategic Development Goals. A growing need for capacity building in WaSH combined with limited prior evaluation presents both a risk of misdirecting investments in training, and an opportunity to influence training for improved outcomes (Crocker et al, 2016).

Capacity building is an important exercise in water and sanitation project. It will mean the knowledge gained will remain in the community after the project phase-out. Participatory training enhances adoption of skills. Even in areas where high illiteracy levels are evident in the midst of the target group, use of proper teaching tools which includes the training methodology practiced, visual aids or images, dramatization or staging and use of other PRA interactive techniques, improves awareness and effective transfer and dissemination of desired information and skills. The beneficiary community apply similar tools in the water resources management and conservation of the water points. To bring teaching to the local setting and undertaking teaching in local context will mean that project beneficiaries and gatekeepers will receive knowledge directly and that is what remains. When trained beneficiaries can learn and practice administration, maintenance and operation skills (UNICEF, 2009).

In a quest to equip water users with management the ministry of water and irrigation in Kenya developed trainer's manual with help of Non-Governmental Organization(NGO). The manual covers diverse areas of management including governance, legal affairs, human resource management, financial management, water management, environmental health and sanitation and technical operation and maintenance (unicef, 2012). If widely disseminated as far as country side or rural areas and put in good use the knowledge gained will have great impact on the individual's life, household's conditions and environment in general.

2.2.5 Sustainability

Pumping funds into WASH programs have beneficial impact on and give support to improving other fundamental sections connected to public health targeted by the SDGs including education capacity, food nutrition, development of economic, and climate resilience (UN, 2017).

Social development, economic development, health of ecosystem and human survival entirely rely on water for its function. This makes Water agenda central as far as sustainable development is concern. productivity of global population in terms of disease reduction and health improvement depends solely on availability and accessibility to safe water. Therefore, underlines the vitality of water to the world. Water is core to the preservation and production of numerous benefits and services for humanity. Water being a vital link between the climate system, human society and the environment is the top most priority of adaptation for climate change (UN Water, 2015).

Being a limited resource, water is equal to none and fundamental to human life. The renewability of water depends on how well it is managed. Approximately, over 1.7 billion people inhabit in river basins where depletion through use surpasses natural recharge, as a result it is projected that two-thirds of the world's population will live in water-stressed states by 2025. This can cause a huge disadvantage to sustainable development but with proper management and equity, water can play a key empowering role in solidifying the resilience of social, economic and environmental systems in the event of rapid and unpredictable changes (UN Water, 2015).

According to World Economic Experts forum, sustainable development is possible where the goals are shared and pursued collectively and individually. The sustainable development goal includes; Bring poverty to stop for all mankind, eliminate poverty of all forms everywhere, to abolish hunger, attain food security and better nutrition and encourage sustainable agriculture. Safeguard healthy living and encourage well-being for all at all ages, which result in leading long healthy life. Establish education system that is inclusive and equitable that promote long term learning opportunities for all. Attain gender equality and empowerment of all women and girls, ensure that water and sanitation are available and sustainable for all and at the same time under proper management. Accessibility to modern energy that is affordable, reliable and sustainable for all required. Promotion of sustainable, inclusive and sustainable economic growth, that yield full and productive employment and decent work for all individuals (Cann, 2015).

Others are to establish robust infrastructure, encourage inclusiveness for workable industrialization and to nurture innovation, lessen inequality inside and amongst countries, build cities and human settlements inclusive, safe, resilient and sustainable. Production and consumption patterns to be sustainable, urgency measures introduced to curb climate change with its impact. Utilize oceans with conservation and sustainability measures adhered to, defend, regenerate and encourage sustainable utilization of terrestrial ecosystems, use forests sustainably, curb desertification, and stop and reverse land degradation and stop loss of biodiversity. Finally, to encourage peaceful and inclusive societies for sustainable development, accessibility to justice for all and establish effective, answerable. transparent and comprehensive institutions at all levels

and reinforce the ways and means of application and rejuvenate the global corporation or partnership for sustainable development (Cann, 2015)

2.3 Summary and Research gaps

Sustainable development is the self-actualization dream for all society including rural people. From look of the things, sustainability goals seem to be far-fetched for countryside citizen. The remoteness of rural setting, Chronic water shortage, poor sanitation and hygiene, impassable roads, harsh climate and hardship that comes with it usually scare away the researchers. This research fills the gap and contributes to few existing studies. When selling development agendas and initiating projects the authorities do use up-down commands. Development agendas and development project are pushed on target group to swallow ideas not their own through coercion. This research promotes down-up model, if communities participate, contribute, share opinion, have say in the project, then ownership and hence sustainability can be achieved.

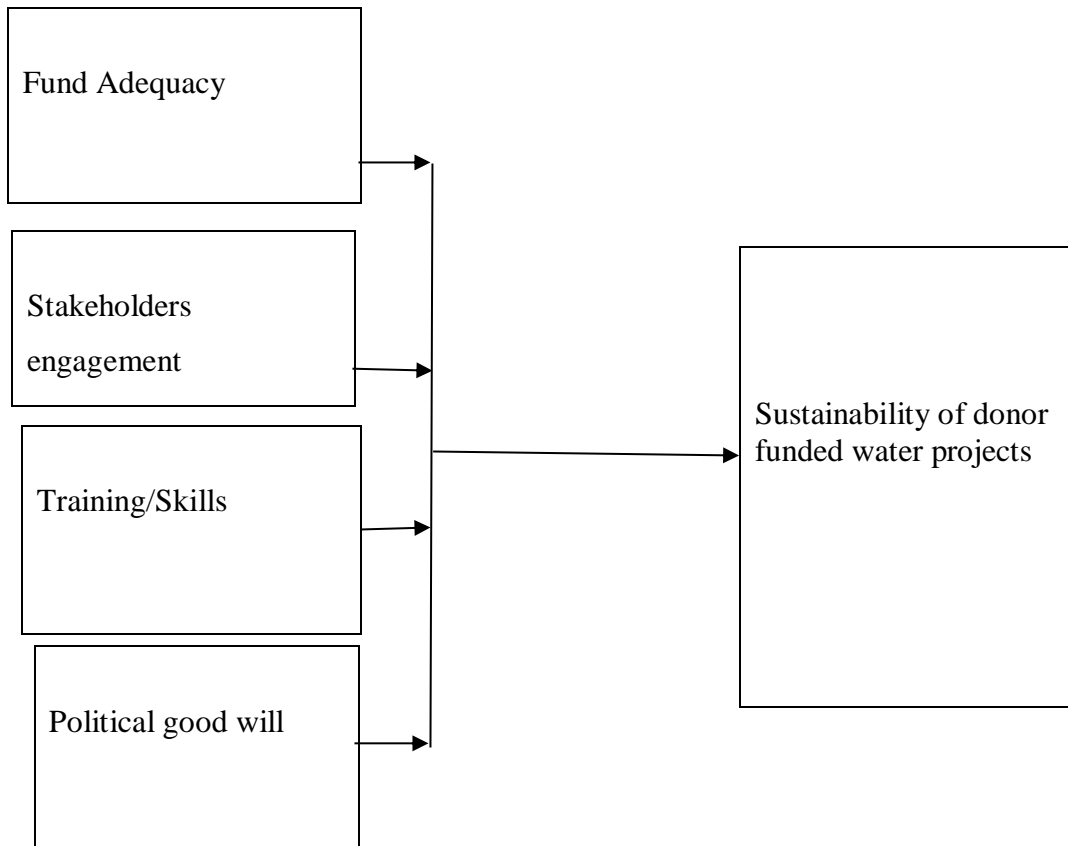
2.4 Conceptual Framework

Framework that is Conceptual reflects researcher's point of view on the problems and provide way-forward for the study. Conceptual framework can be adaptation of a model used in a past study, with adjustments to match the inquiry. Apart from providing the way-forward to the study, via the conceptual framework, the model can be able to reveal the correlation of the diverse concepts that researcher likes to examine, (SOC401).

Figure: 2.1 Conceptual Model

Independent Variable

Dependent Variable



2.5 Operationalization of Variables

Table 2.1 Operationalization of the variables

| Variable Name | Variably Type | Measurement Level | Measurement Indicators | Metric |
|-------------------------|----------------------|--------------------------|--|---|
| Stakeholders engagement | Independent | Qualitative | participation, ownership | Quality of life, stakeholder's satisfaction |
| Funds adequacy | Independent | Quantitative | Number of project completed, Number of beneficiaries | Count, Percentage, |
| Political good will | Independent | Qualitative | Acceptance of the project | Donor satisfaction |
| Training/skills | Independent | Qualitative | Knowledge gained | Quality work performance |

2.6 Chapter Summary

In this chapter theory and empirical literature were reviewed. Research gaps identified.

Variables were arranged into conceptual models and operationalization.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

The chapter provides description of research design, target population, presents sample and sampling technique. Displays data collection procedures and presentation.

3.1 Research Design

Research design provides ligament that cement the research projects together. A design, like manual is used as a guide to assemble the research, to reveal the synergy between and among all major sections of the research work by attempting to answer the central research questions(Trochim,2006).

The research design refers to the general approach that you select to blend the different components of the study in a sound and rational way, thereby, make sure that one will effectually tackle the research problem; it includes the layout for the gathering or collection, measurement, and analysis or examination of data (Trochim 2006 &De Vaus 2001).

The study adoptd exploratory and descriptive survey research design. Exploratory research intends merely to explore the research questions to determine the nature of the problem. It can even assist in investigating the research design, sampling methodology and data collection method (Dudovskiy,2016).

Descriptive research signifies the gathering of data regarding present conditions. Descriptive research is useful in; providing the value of facts, and focusing attention on the most important things to be reported, (Villanueva, 2013).

The study explored the effects of stakeholder's engagements in ensuring sustainability in water projects. It sought to determine challenges encountered by TWSP on ensuring the sustainability of water and sanitation project. The research again determined the role of funding in ensuring sustainability of TWSP water and sanitation projects. Political good will and skills management were examined as well.

3.2 Target Population

Nalzar, (2012), defines target population as a group of individuals who meets the criteria. The target population were employees of Tana north Water and Sanitation Project. Since the study selected Tana north Water and Sanitation Project, the 34 employees formed the target population.

3.3 Sample and sampling technique

The sample size is vital feature of a given study or enquiry where the goal is to make implications about the population from a sample. In general, data collection cost, available resources, and suitability or convenience determines selection of the sample size. (Singh et al, 2014).

The free encyclopedia defines census as the practice of procedurally obtaining and recording data about the members of a certain population. The exclusive benefit of the census is that it represents the entire statistical full picture, down to the smallest geographical units(Corcos,2017). The researcher adopted census to draw findings from the population. The researcher reached whole population with questionnaire. The census was settled because the target population was too small to be sampled.

3.4 Instruments

The researcher used questionnaire. A questionnaire is a research tool comprising of a sequence of questions and other prompts for the aim of collecting information from respondents. Questionnaires have benefits over some other categories of surveys in that they are cheap or affordable, do not demand as much effort from the questioner as compared to verbal or telephone surveys, and it is simple to compile because of standardized answers that it have. (Maria, 2017).

3.5 Pilot study

Instruments tools was subjected to pre-test before the real survey is carried out. This ensured degree of accuracy and formulation of appropriate question to bring out the desired findings at the end of study.

3.5.1 Validity

Validity is degree to which an instrument investigates what it is required to measure and functions as it is designed to perform. As a procedure, validation includes assembling and analyzing data to find out the accurateness of an instrument (Biddix,2009).

The researcher will ensure that the content validity of the research instruments is tested. Content validity answers how well the items developed to operationalize a construct to provide an adequate and representative sample of all the items that might measure the construct of interest (Kimberlin&Winterstein, 2008).

3.5.2 Reliability test

The procedure of developing and validating an instrument is in large part attentive to minimizing mistake or error in the measurement or examination

process(Kimberlin&Winterstein, 2008). The possibilities of errors was reduced by pre-testing instrument tools.

3.6 Procedure for Data collection

Data collection is the procedure of picking and measuring or investigating data on variables of interest, in an existing systematic style that allows one to answer stated research questions, test hypotheses, and evaluate outcomes. The information gathering section of research is obvious to all fields of study consisting physical and social sciences, humanities, business (Krishnamurthi&Karlovsky, 2005)

3.7 Data Analysis and Presentation

Data presentation and analysis forms an important part of all studies done by academicians, commercial sector, industrial companies and marketing activities and even professional practices. It is essential to make use of collected data which is believed to be raw data that must be processed to put to planned use. Data analysis assists in attaching a meaning to data and take a decision or answer the research question. Data analysis begins with the gathering of data followed by sorting or filtering and processing it. Finished or Processed data assists in providing information from it as the raw data is non-comprehensive in nature. Presenting the data comprise the pictorial representation of the data by using graphs, charts. maps and other methods. These methods help in boosting visual aspect to data which makes it much easier and quick to understand (Aggarwal, 2016).

3.8 Ethical Consideration

In research, ethical consideration is a critical aspect. Ethics means norms or standards for conduct or behavior that distinguish between wrong and right. They assist to define or bring out the difference between acceptable and unacceptable conducts. Ethical standards restrict against the fabrication or falsifying of data and therefore, promote the quest of knowledge and truth which is the fundamental goal of research. Ethical behavior is as well essential for collaborative work because it inspires an environment of trust, accountability, and mutual respect among researchers. This is especially vital when considering issues related to data sharing, co-authorship, copyright guidelines, confidentiality, and many other issues. To win the trust of the public, researchers must also adhere to ethical standards in order for the society to support and believe in the research and development. On issues pertaining to human rights, animal welfare, compliance with the law, conflicts of interest, safety, and health standards, the public demands an assurance that researchers followed appropriate procedures and guidelines.(Grand Canyon University,2016).

3.9 Chapter Summary

The chapter reviewed research design, identified target population, instrument tools and data collection procedures was discussed. Further, data analysis and presentation including ethical consideration were presented.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

This chapter focuses on the analysis, presentation and interpretation of the data collected. The Statistical Packages for Social Sciences (SPSS) was used to carry out the analysis of the data and the findings presented in tables and charts. The study sort to establish the factors affecting sustainability of donor-funded water and sanitation projects, specifically the Tana North Water and Sanitation Project (TWSP).

4.1 Presentations of Research Findings

4.1.1 Response Rate

Of the total questionnaires administered, the response rate was 91.2%. The response rate for the current study met the required threshold of Gray's (2008) recommendation and thus, this justifies the study as being reliable since the response rate was above 60%.

4.1.2 General Information

4.1.2.1 Gender

Most of the respondents, 80.6%, were male as shown in table 4.1 below.

Table 4.1 Gender

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid Male | 25 | 80.6 | 80.6 | 80.6 |
| Female | 6 | 19.4 | 19.4 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

The fact that the geographical area of study is Tana North sub-county where women are majorly not allowed to engage in economic activities explains the possibility of the occurrence that most of the respondents to this study were men.

4.1.2.2 Age Bracket

Majority of the respondents, 35.5%, were youths aged between 18 and 30 years, 25.8% between 41 and 50 years, 19.4% between 31 and 40 years, while 19.4% were aged 51 years and above as in table 4.2 below.

Table 4.2 Age Brackets

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------|-----------|---------|---------------|--------------------|
| Valid 18-30 | 11 | 35.5 | 35.5 | 35.5 |
| 31-40 | 6 | 19.4 | 19.4 | 54.8 |
| 41-50 | 8 | 25.8 | 25.8 | 80.6 |
| 50 years and Above | 6 | 19.4 | 19.4 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

The statistics indicate that the responses were most likely not biased since all the respective age brackets were well represented in the responses.

4.1.2.3 Highest Education Level Completed

Majority of the respondents, 41.9%, indicated that their highest education level completed was college/university level with the least, 9.7%, indicating that they held secondary school certificates as their highest level of education completed as in table 4.3 below.

Table 4.3 Highest Education Level Completed

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------|-----------|---------|---------------|--------------------|
| Valid Primary Level | 10 | 32.3 | 32.3 | 32.3 |
| Secondary Level | 3 | 9.7 | 9.7 | 41.9 |
| College/University | 13 | 41.9 | 41.9 | 83.9 |
| Others | 5 | 16.1 | 16.1 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

We also note that a good number, 32.3%, indicated that primary level was the highest education level they had completed. 16.1% of the respondents indicated that they had completed other levels or probably systems of education which could include informal training such as home schooling.

4.1.2.4 Service Area Covered by the TWSP Project in Tana North Sub-county

Most of the respondents, 87.1%, indicated that the TWSP project covered a 60km radius in Tana north sub-county as in table 4.4 below.

Table 4.4 Service Area Covered by the TWSP Project in Tana North Sub-county

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|-----------------------------|-----------|---------|---------------|--------------------|
| Valid Less than 60km Radius | 1 | 3.2 | 3.2 | 3.2 |
| 60km Radius | 27 | 87.1 | 87.1 | 90.3 |
| Over 60km Radius | 3 | 9.7 | 9.7 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

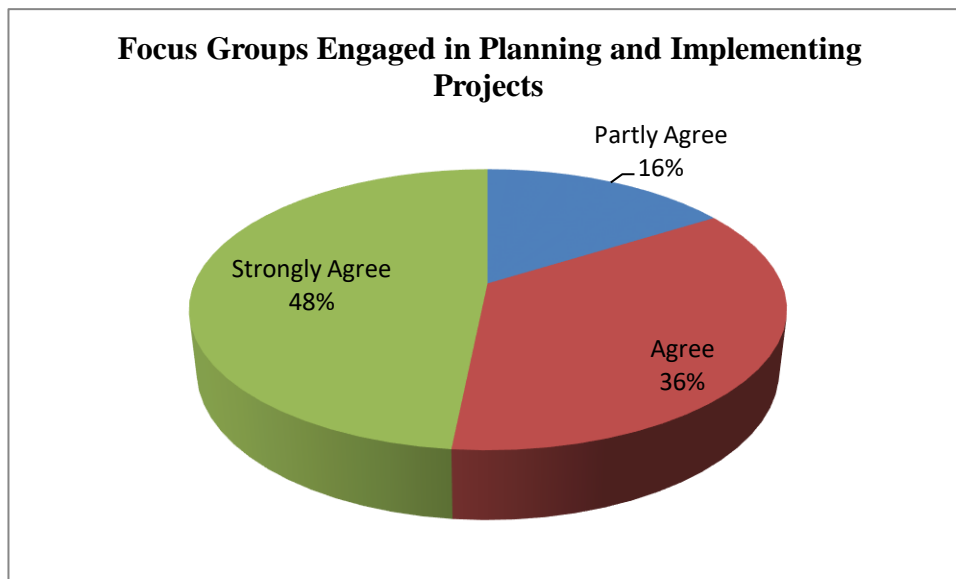
Since only 3.2% of the respondents indicated that the TWSP project covered a radius less than 60km in the Tana North sub-county and 9.7% of them indicated that it covered a radius over 60km, we can conclude that the project covered an approximate 60km radius of the sub-county.

4.1.3 Effects of Stakeholder Engagement on Sustainability of TWSP

4.1.3.1 The Project fully Engages focus groups when Planning and Implementing Projects

Majority of the respondents, 83.9%, indicated that focus groups were engaged in the planning and implementation of TWSP projects as in figure 4.1 below.

Figure 4.1 The Project fully engages focus groups when planning and Implementing Projects

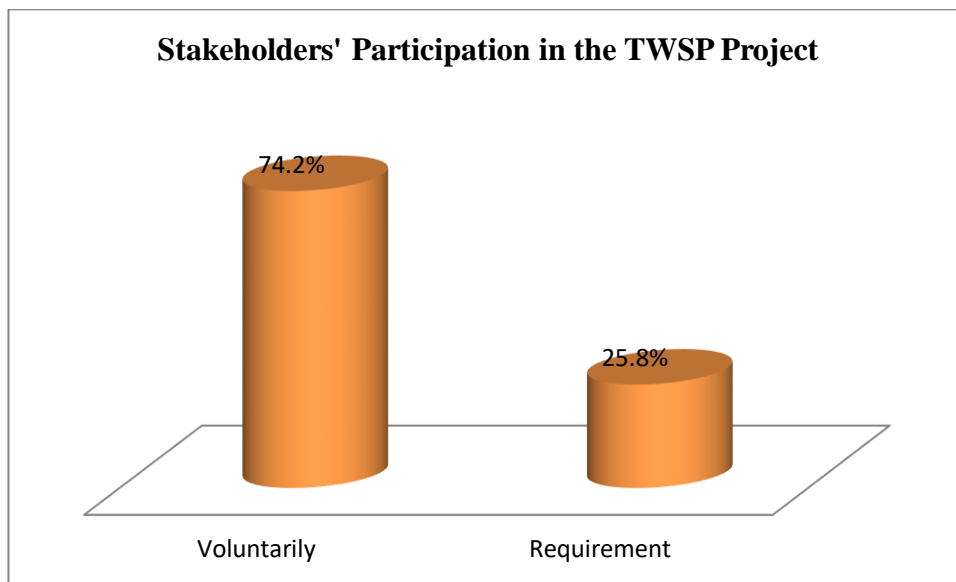


However, 16.1% of them indicated that they were partially engaged in the planning and implementation of TWSP projects.

4.1.3.2 Stakeholders' Participation in the Project is Compulsory

All the respondents indicated that stakeholders participated in the project with 74.2% indicating that they did so voluntarily while 25.8% of them indicated that they were required to do so as in figure 4.2 below.

Figure 4.2 Stakeholders' Participation in the TWSP Project



4.1.3.3 Number of Stakeholders that Received Training during Project Intervention Period

The respondents indicated that the numbers of stakeholders that received training during the TWSP project intervention period were as in table 4.5 below.

Table 4.5 Number of Stakeholders that Received Training during Project Intervention Period

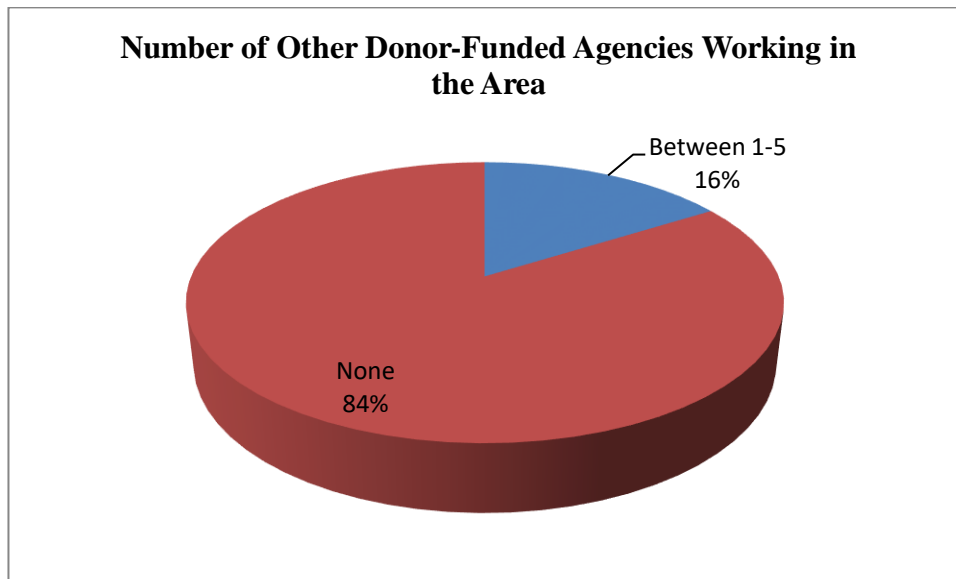
| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------|-----------|---------|---------------|--------------------|
| Valid Between 0-500 | 11 | 35.5 | 35.5 | 35.5 |
| Between 501-1000 | 8 | 25.8 | 25.8 | 61.3 |
| 1001 and Above | 10 | 32.3 | 32.3 | 93.5 |
| None | 2 | 6.5 | 6.5 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

It is highly likely that the differences in recordings of the numbers by the various respondents could be due to the possibility that they received trainings on different periods and thus considered only the numbers they were in when undergoing such trainings. However, 6.5% of the respondents indicated that they received no training whatsoever during the TWSP project intervention period.

4.1.3.4 Number of other Donor-Funded Agencies Working in the Area

83.9% of the respondents indicated that there were no other donor-funded agencies working in the area as shown in figure 4.3 below.

Figure 4.3 Number of other Donor-Funded Agencies Working in the Area



The 16.1% of the respondents who indicated that there were between 1-5 other donor-funded agencies working in the area most probably had knowledge of such operations and also indicate a big likelihood that at least 1-5 other donor-funded agencies were working in the area but probably not in the field of water and sanitation.

4.1.3.5 Target Beneficiaries participated willingly and voluntarily

A good number of the respondents, 38.7%, indicated that the target beneficiaries participated in the TWSP project willingly and voluntarily to a great extent, 25.8% to some extent, while 35.5% of them indicated that target beneficiaries participated in the TWSP project willingly and voluntarily to a small extent as shown in table 4.6 below.

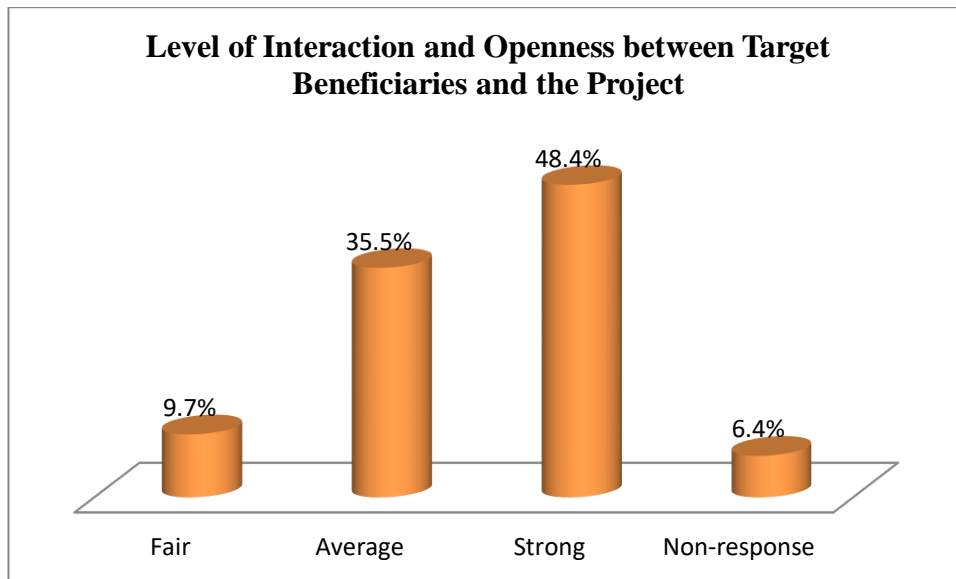
Table 4.6 Target Beneficiaries participated willingly and voluntarily

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|-----------|---------|---------------|--------------------|
| Valid Fairly | 11 | 35.5 | 35.5 | 35.5 |
| Average | 8 | 25.8 | 25.8 | 61.3 |
| Strongly | 12 | 38.7 | 38.7 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

4.1.3.6 Level of interaction and openness between Target Beneficiaries and the Project

6.4% of the respondents did not indicate their response to this. Majority of them, 48.4%, indicated that there was a high level of interaction and openness between target beneficiaries and the TWSP project, 35.5% indicated an average level, while 9.7% indicated that there was a low level of interaction and openness between target beneficiaries and the TWSP project as in figure 4.4 below.

Figure 4.4 Level of interaction and openness between Target Beneficiaries and the Project



4.1.4 Fund Adequacy for Projects Sustainability

4.1.4.1 Community Contributed in Cash or Kind towards their Project

Majority of the respondents, 41.9%, indicated that the community contributed in cash or kind towards their project to some extent. 29.0% of them indicated that the community contributed in cash or kind towards their project to a great extent, 12.9% to a small extent, and 9.7% indicated that the community did not participate at all as in table 4.7 below.

Table 4.7 Community Contributed in Cash or Kind towards their Project

| | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|------------|----|-----------|---------|---------------|--------------------|
| Valid | Not At All | 3 | 9.7 | 10.3 | 10.3 | |
| | Fairly | 4 | 12.9 | 13.8 | 24.1 | |
| | Average | 13 | 41.9 | 44.8 | 69.0 | |
| | Strongly | 9 | 29.0 | 31.0 | 100.0 | |
| | Total | 29 | 93.5 | 100.0 | | |
| Missing | 99 | 2 | 6.5 | | | |
| Total | | 31 | 100.0 | | | |

4.1.4.2 Private Organizations Contributed towards Water and Sanitation Projects

Most of the respondents, 77.4%, indicated that private organizations did not contribute towards water and sanitation projects as shown in table 4.8 below.

Table 4.8 Private Organizations Contributed towards Water and Sanitation Projects

| | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|------------|----|-----------|---------|---------------|--------------------|
| Valid | Not At All | 24 | 77.4 | 88.9 | 88.9 | |
| | Fairly | 1 | 3.2 | 3.7 | 92.6 | |
| | Average | 1 | 3.2 | 3.7 | 96.3 | |
| | Strongly | 1 | 3.2 | 3.7 | 100.0 | |
| | Total | 27 | 87.1 | 100.0 | | |
| Missing | 99 | 4 | 12.9 | | | |
| Total | | 31 | 100.0 | | | |

3.2% of them indicated that private organizations contributed towards water and sanitation projects to a great extent, 3.2% to some extent, while 3.2% indicated that this was the case to a small extent. 12.9% of them did not indicate their responses to this most likely because they did not have knowledge of such private organizations that contributed towards water and sanitation projects.

4.1.4.3 The Government Gave Funding for the Water and Sanitation Project

Most of the respondents, 67.7%, indicated that the Government did not give funding for water and sanitation project as shown in table 4.9 below.

Table 4.9 The Government Gave Funding for the Water and Sanitation Project

| | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|------------|----|-----------|---------|---------------|--------------------|
| Valid | Not At All | 21 | 67.7 | 75.0 | 75.0 | |
| | Fairly | 3 | 9.7 | 10.7 | 85.7 | |
| | Average | 3 | 9.7 | 10.7 | 96.4 | |
| | Strongly | 1 | 3.2 | 3.6 | 100.0 | |
| | Total | 28 | 90.3 | 100.0 | | |
| Missing | 99 | 3 | 9.7 | | | |
| Total | | 31 | 100.0 | | | |

3.2% of them indicated that that the Government gave quite significant funding to the water and sanitation project, 9.7% indicated that the Government funding was a bit significant, while 9.7% indicated that made very little impact to the project. 9.7% of them did not indicate their responses to this most likely because they did not have knowledge

of Government involvement in the water and sanitation project. It may be even where they involved thorough participation, involvement and inclusion of common citizen is not sought, it comes with all it's might do whatever they do and go back to the city. This will have a greater shortcoming on sustainability.

4.1.4.4 Level of Difficulty in Accessing External Funding from International Donors

A significant number of the respondents, 38.7%, indicated that there were no difficulties at all accessing external funding from international donors for water and sanitation projects as in table 4.10 below.

Table 4.10 Level of Difficulty in Accessing External Funding from International Donors

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|------------|-----------|---------|---------------|--------------------|
| Valid | Not At All | 12 | 38.7 | 44.4 | 44.4 |
| | Fairly | 7 | 22.6 | 25.9 | 70.4 |
| | Average | 6 | 19.4 | 22.2 | 92.6 |
| | Strongly | 2 | 6.5 | 7.4 | 100.0 |
| | Total | 27 | 87.1 | 100.0 | |
| Missing | 99 | 4 | 12.9 | | |
| Total | | 31 | 100.0 | | |

Only 6.5% of the respondents indicated that there were some high levels of difficulty in accessing external funding from international donors for water and sanitation projects. 19.4% of them indicated that the level of difficulty was somehow high and 22.6% indicated that the level of difficulty was little or insignificant. 12.9% of them did not

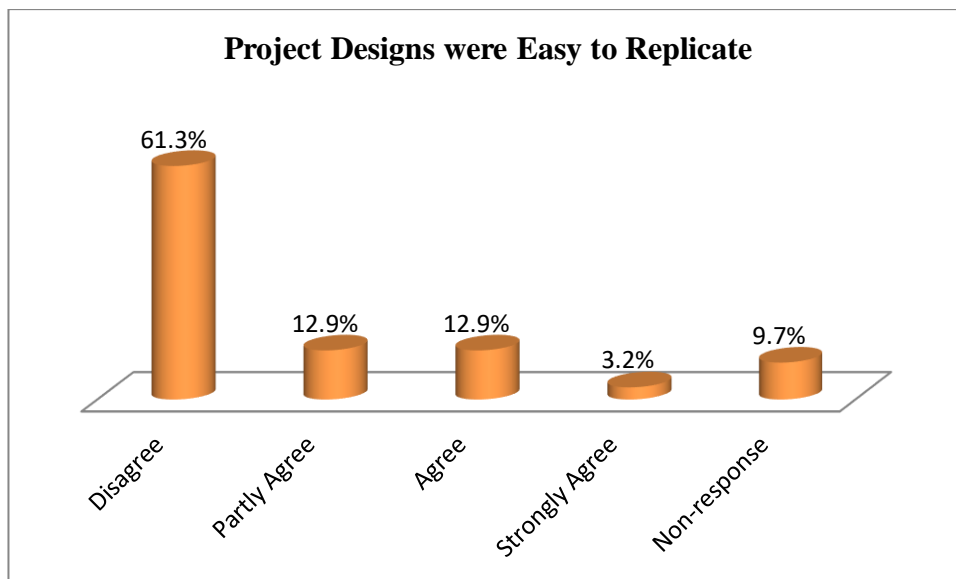
indicate their response to this which most likely indicates that they may not have participated in the processing of sourcing for funds from international donors for water and sanitation projects and were thus not in a position to answer the statement.

4.1.5 Sustainability of Donor-Funded Water and Sanitation Projects

4.1.5.1 Project Designs were easy to replicate

Majority of the respondents, 61.9%, indicated that project designs were not easy to replicate as in figure 4.5 below.

Figure 4.5 Project Designs were easy to replicate



12.9% of the respondents indicated that project designs were fairly easy to replicate, 12.9% indicated that they were quite easy to replicate, while only 3.2% indicated that project designs were very easy to replicate. 9.7% of them did not indicate their response to this.

4.1.5.2 Target Group Gained Capacity to Administer, Maintain and Operate for a Long Time

At least 83.9% of the respondents indicated that the target group had gained capacity to administer, maintain and operate the project for a long time though to different levels of extent as in table 4.11 below.

Table 4.11 Target Group Gained Capacity to Administer, Maintain and Operate for a Long Time

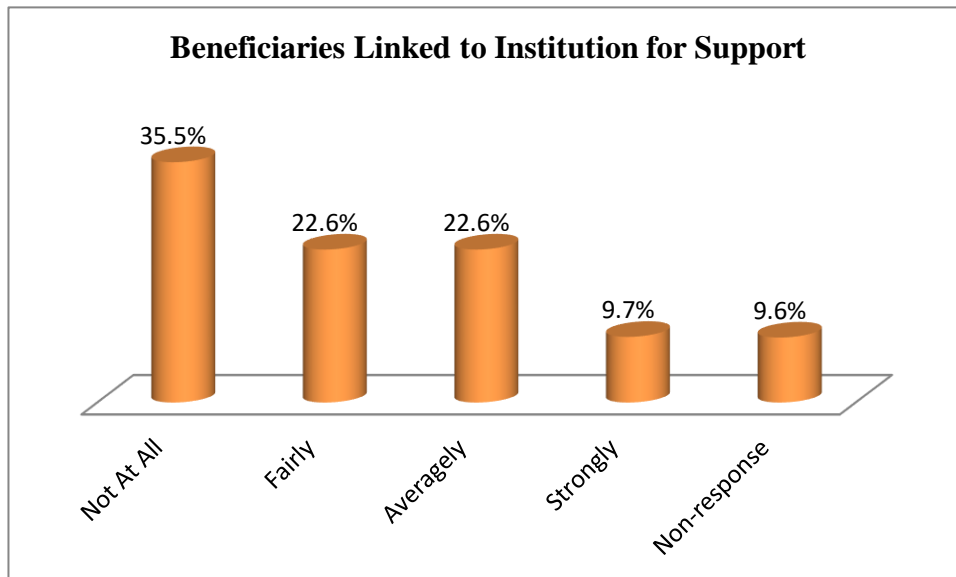
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|----------------|-----------|---------|---------------|--------------------|
| Valid | Disagree | 3 | 9.7 | 10.3 | 10.3 |
| | Partly Agree | 8 | 25.8 | 27.6 | 37.9 |
| | Agree | 10 | 32.3 | 34.5 | 72.4 |
| | Strongly Agree | 8 | 25.8 | 27.6 | 100.0 |
| | Total | 29 | 93.5 | 100.0 | |
| Missing | 99 | 2 | 6.4 | | |
| Total | | 31 | 100.0 | | |

Only 9.7% of the respondents indicated that the target group had not gained capacity to administer, maintain and operate the project for a long time. 6.4% of them did not indicate their response to this.

4.1.5.3 Beneficiaries Linked to Institution for Support

Majority of the respondents, 35.5%, indicated that the beneficiaries of the project did not link to any institution for support as in figure 4.6 below.

Figure 4.6 Beneficiaries Linked to Institution for Support

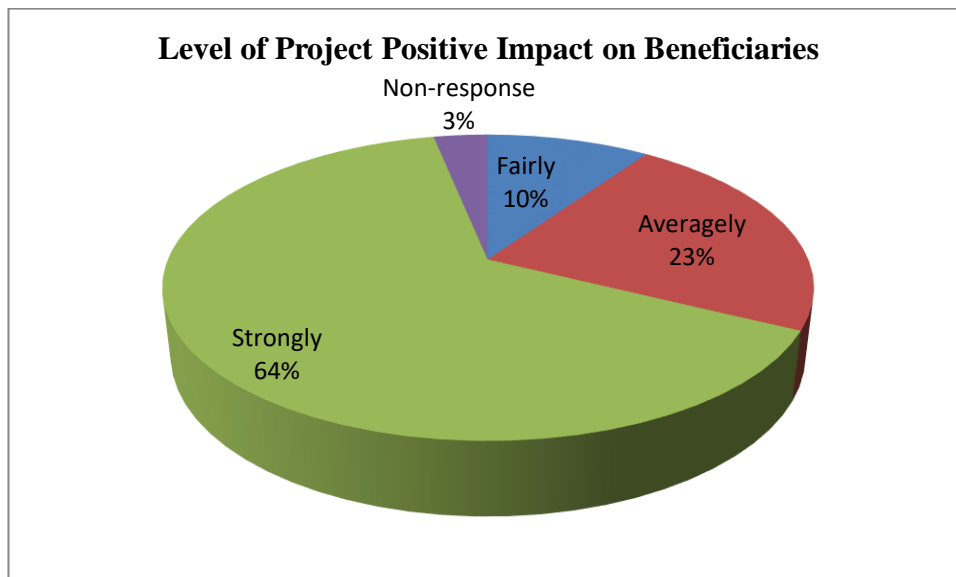


9.6% of the respondents did not indicate their response to this. 9.7% of them indicated that beneficiaries were strongly linked to institutions for support, 22.6% indicated that this was to some significant extent while 22.6% indicated that the beneficiaries were only linked to institutions for support to a small extent.

4.1.5.4 Level of Project Positive Impact on Beneficiaries

All the respondents indicated that the TWSP project had positive impact on the beneficiaries but to different extents as in figure 4.7 below.

Figure 4.7 Level of Project Positive Impact on Beneficiaries



Majority of the respondents, 64.5%, indicated that the project had a great level of positive impact on the beneficiaries, 22.6% indicated that it had a high level, while 9.7% indicated that it had some level of positive impact on the beneficiaries. 3.2% of the respondents did not indicate their response to this.

4.1.6 Political Goodwill

4.1.6.1 The Project Gained Political Goodwill

Only 3.2% of the respondents felt that the project had not gained any political goodwill. These may have experienced some difficulty or antagonism from the political elite in the sub-county. They are very likely to have been the project leaders or managers who follow up on approvals for such projects from the county government offices in the region. One of the reasons they might have experienced some difficulty and challenges may have been due to the selfish ambitions or intentions that the political elite sometimes have for their own benefit or for that of their families or financiers for example.

This notwithstanding, majority of the respondents, 45.2%, indicated that the TWSP had gained extremely high political goodwill. 22.6% indicated that the project had gained some significant political goodwill while 29.0% indicated that the project had gained some political goodwill as in table 4.12 below.

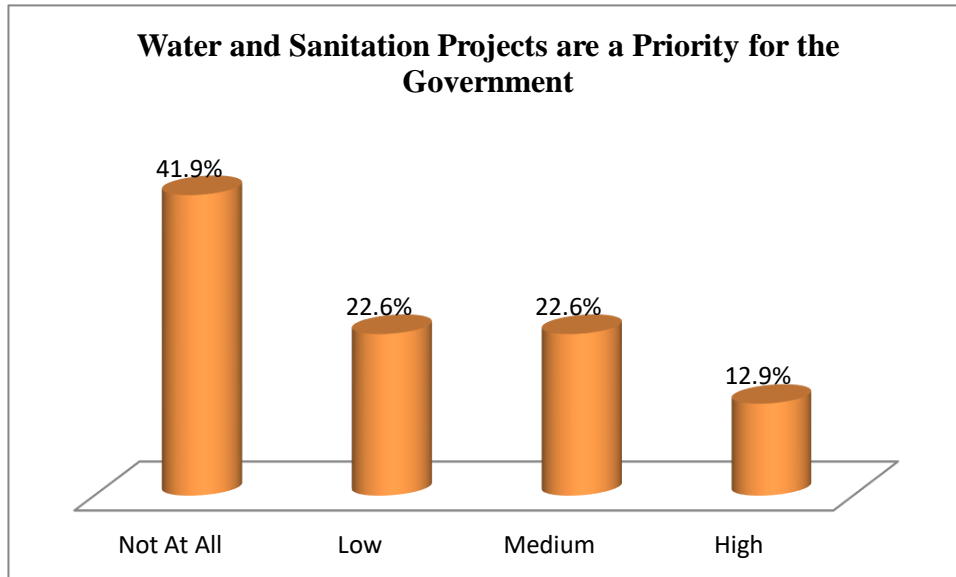
Table 4.12 The Project Gained Political Goodwill

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------|-----------|---------|---------------|--------------------|
| Valid Not At All | 1 | 3.2 | 3.2 | 3.2 |
| Fairly | 9 | 29.0 | 29.0 | 32.3 |
| Average | 7 | 22.6 | 22.6 | 54.8 |
| Strongly | 14 | 45.2 | 45.2 | 100.0 |
| Total | 31 | 100.0 | 100.0 | |

4.1.6.2 Water and Sanitation Projects were a Priority for the Government

Majority of the respondents, 41.9%, indicated that water and sanitation projects were not a priority for the Government as in figure 4.8 below.

Figure 4.8 Water and Sanitation Projects were a Priority for the Government



Only 12.9% indicated that water and sanitation projects were a high priority for the Government. 22.6% indicated that they were an ordinary priority while 22.6% indicated that water and sanitation projects were an insignificant priority to the Government.

4.1.7 The Role of Management Skills in Ensuring Sustainability of TWSP Project

4.1.7.1 The Project Transferred Relevant Skills to the Target Community through Training

Majority of the respondents, 54.8%, indicated that the project had transferred relevant skills to the target community through training to a great extent as in table 4.13 below.

Table 4.13 The Project Transferred Relevant Skills to the Target Community through Training

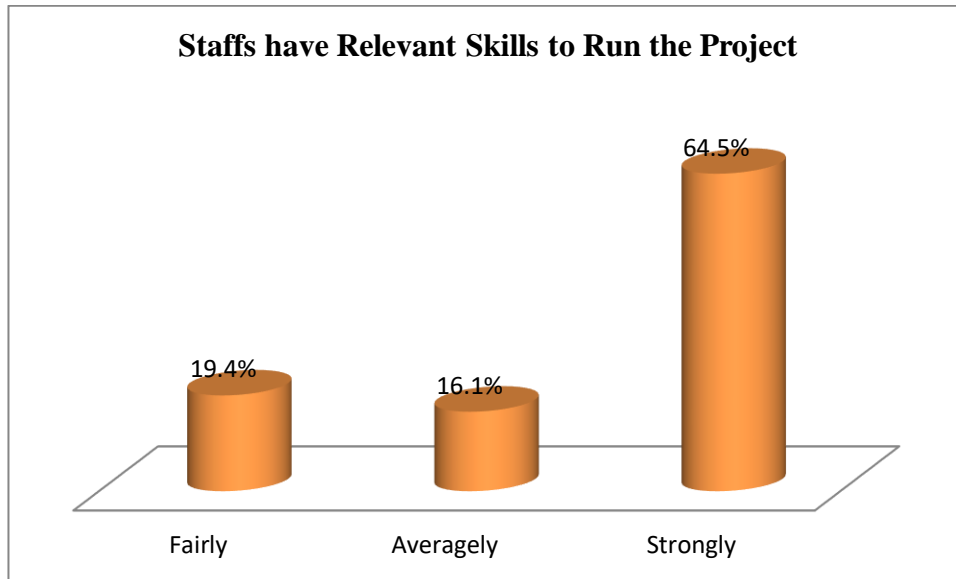
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|----------|-----------|---------|---------------|--------------------|
| Valid | Fairly | 4 | 12.9 | 13.3 | 13.3 |
| | Average | 9 | 29.0 | 30.0 | 43.3 |
| | Strongly | 17 | 54.8 | 56.7 | 100.0 |
| | Total | 30 | 96.8 | 100.0 | |
| Missing | 99 | 1 | 3.2 | | |
| Total | | 31 | 100.0 | | |

29.0% of the respondents indicated that the project had transferred relevant skills to the target community through training to a significant extent and only 12.9% indicated that this was the case to a low extent. 3.2% of the respondents did not indicate their response to this.

4.1.7.2 Staff has Relevant Skills to Run the Project

Majority of the respondents, 64.5%, indicated that the staffs were very well equipped with the relevant skills to run the TWSP project as in figure 4.9 below.

Figure 4.9 Staff has Relevant Skills to Run the Project



16.1% of the respondents indicated that staffs had the necessary relevant skills to run the TWSP project while a significant number, 19.4%, indicated that staffs did not have all the necessary relevant skills to run the TWSP project.

4.1.8 Challenges faced by TWSP in Ensuring the Sustainability of the Water and Sanitation Project

4.1.8.1 Political Challenges facing the Project

16.1% of the respondents indicated that the TWSP project faced no political challenge or interference at all as in table 4.14 below.

Table 4.14 Political Challenges facing the Project

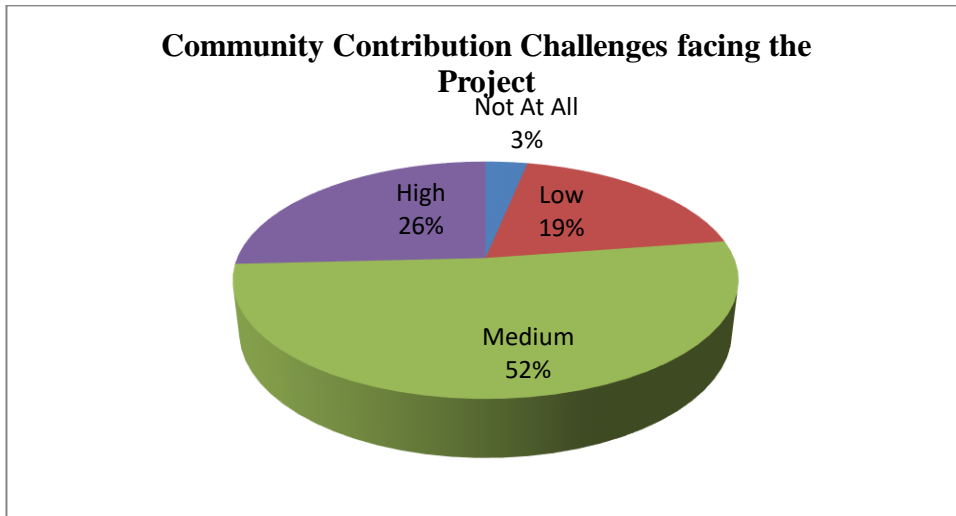
| | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|----|-----------|---------|---------------|--------------------|
| Valid | Not | At | 5 | 16.1 | 16.1 | 16.1 |
| | All | | | | | |
| | Low | | 14 | 45.2 | 45.2 | 61.3 |
| | Medium | | 10 | 32.3 | 32.3 | 93.5 |
| | High | | 2 | 6.5 | 6.5 | 100.0 |
| | Total | | 31 | 100.0 | 100.0 | |

Majority of the respondents, 45.2%, indicated that there were very few political challenges facing the TWSP project. A significant number, 32.3%, indicated that the project faced a number of political challenges. Only 6.5% of them indicated that the project faced many political challenges. Again, these 6.5% respondents are most likely the project coordinators or managers who deal directly with the political elite who might many times have their own interests that are likely to oppose the project and its benefits to the target community.

4.1.8.2 Community Contribution Challenges facing the Project

Majority of the respondents indicated that there were a number of community contribution challenges that faced the project. A significant number of them, 25.8%, indicated that there were many community contribution challenges that faced the project while 19.4% of them indicated that there were few community contribution challenges that faced the project as in figure 4.10 below.

Figure 4.10 Community Contribution Challenges facing the Project

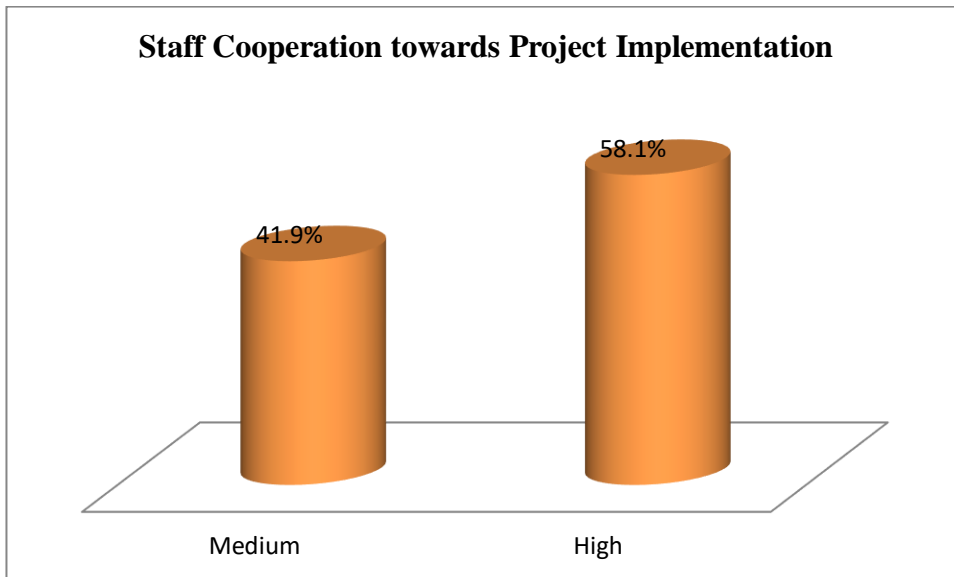


Only 3.2% of the respondents indicated that there were no community contribution challenges facing the project at all.

4.1.8.3 Staff Cooperation toward Project Implementation

All the respondents indicated staff cooperated toward project implementation only to different extents with 41.9% having cooperated to a high degree while 58.1% of the staff cooperated to a very high degree toward project implementation as shown in figure 4.11 below.

Figure 4.11 Staff Cooperation toward Project Implementation



4.2 Limitations of the Study

There were few literatures available for reviews concerning sustainability of donor funded projects in arid and semi-arid - rural areas of Kenya. The researcher noted that there is requirement for further research on subject of sustainability in the mentioned areas of Kenya. Secondly, scarce materials on theories of sustainability of development were experienced. Therefore, underlines the need for theory formulation on sustainability of development by future researchers.

4.3 Chapter Summary

Factors affecting sustainability of donor funded water and sanitation project, specifically Tana Water and Sanitation Project (TWSP) was discussed, analyzed and interpreted. According to the respondents the project engagement with the stakeholders is high. Though the government and private organization funding of water and sanitation is weak, the community contribution and foreign funding keep the project going. Political good will and project management skills was positive.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.0 Introduction

This chapter simply displayed summary of the findings. Recommendation is discussed by including specific activities, strategies for monitoring and evaluation, timelines and persons responsible for implementation of suggestions and recommendation. Finally, hereunder is as well summed up record for objective conclusions and recommendations.

5.1 Summary of Findings

The study found out that TWSP's stakeholder engagement on sustainability of water and sanitation project is highly positive. The stakeholders the project had mainly engaged are direct beneficiaries through participation, training, interaction, involvement and inclusions.

The research revealed that private organization and the government does not take water and sanitation as priority number one in its funding list. Where government of the people does not take the poor plight of its citizen seriously, this points to weak long term sustainability (Vidal, 2012).

Majority of the respondents agreed that the project gained political good will from the political elite. Though the smaller percentage probably directors or managers of the project are of opinion that the project has not gained political good will at all. They might have burnt their fingers in the process of engaging political elite for the approval of agreements or while drumming support for the project planning and implementation for the betterment of grassroot beneficiaries. Political elites might have dragged their feet or

tactically delayed the project progress for their personal vested interest or those of their financiers or supporter(Mudge,2009).

The water and sanitation project faced some level of challenges both on community contribution and political elite. The project survived because the challenges community and political elite posed were scattered across the given rating scale. Therefore, giving the project breathing space to continue with the planning and implementation of the project.

Sustainability is crucial for any given project. Though the project is not easy to replicate or duplicate according to the respondents, all is not lost. The salvage was because the wider target group had gained capacity for administration, maintenance and operation, beneficiaries linked to institutions and high level of positive impact was experienced. Though they cannot duplicate by their own can use connection and network gained and use the skills received from capacity building to solicit for support and fund and implement the project with success. And that for sure is sustainability.

5.2 Recommendations

The researcher give recommendation for more studies on factors affecting donor funded projects especially in arid and semi-arid rural areas of Kenya. Further research should be done on sustainability, engagement of stakeholders, political good will, adequacy of funding for projects and training and skills for management of project programs.

Effect of stakeholder's engagement on sustainability. What stand out from the findings is that stakeholders participation is so well present. To gain ownership and ultimately sustainability of any given project, government and private organization must prioritize target group participation without pay.

Fund adequacy for projects sustainability. Since relying on foreign aid does not ensure sustainability. The government of Kenya to prioritize water and sanitation and make sure that beneficiaries contribute in cash or kind towards their project. Free hand-out to be banned to eliminate dependency syndrome in rural – arid and semi-arid areas especially pastoral community.

Sustainability of water and sanitation projects. The government should enact policy that oblige donors and government agencies to focus on easily replicable projects and affordable in local context.

Political good will for the sustainability of the project. Public service commission invent away of collecting feedback from the projects, private sectors and individual citizens to control and minimize political interference with community project by exposing the vice.

Management skills in ensuring sustainability. Government to make policy that oblige donor projects and government agencies to transfer skills to the beneficiary through capacity building and on job-training. These skills will remain at the grassroots level after project phase out.

5.3 Conclusion

On the first objective that about effect of stakeholder's engagement on sustainability, the writer concludes that it should be a requirement for project beneficiaries to fully participate without incentive or pay to attain full ownership and reduce dependency syndrome.

To promote ownership the beneficiaries should contribute freely towards their project. For sustainability purposes projects should be made to carry-out on-job training and vocational trainings to impart skills that remains at the local level. Higher independent

body to be formed to curb political culprits with authority to prosecute such ragged public officers and restrained from interfering with community projects.

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APPENDIX I. LETTER OF INTRODUCTION

LETTER OF INTRODUCTION

To Whom It May Concern

RE: ACADEMIC RESEARCH ON FACTORS AFFECTING SUSTAINABILITY OF DONOR FUNDED WATER AND SANITATION PROJECTS: A CASE STUDY OF TANA NORTH WATER AND SANITATION PROJECT.

My name is Roba Wako, a student of BDS at Management University of Africa, conducting academic research, as part of requirement in fulfilment for degree of Bachelor of Development Studies of Management University of Africa. I request your permission to spend 20 minutes with you to receive information from you that will help me fulfil the academic requirement. The collected information is purposely for academic and will not be revealed to anyone except the examiners. Your identity will be protected and information provided will be treated as confidential.

Yours' Sincerely,

Roba Wako Tato

ODL-BDS/3/00026/2/2014

APPENDIX II. RESEARCH STUDY QUESTIONIONAIRE

1. What is your gender?
 - Male
 - Female
2. What is your age?
 - Between 18-30
 - Between 31-40
 - Between 41-50
 - 50 years and Above
3. Highest education level completed?
 - Primary level
 - Secondary level
 - College/university
 - Associate Degree
 - Post graduate
 - Others
4. What service area does TWSP Project cover in Tana north Sub-county?
 - Less than 60km radius
 - 60km radius
 - Over 60km radius
5. Effect of stakeholders engagement on sustainability of TWSP Water and Sanitation
 - 5.1. The project fully engage focus groups when planning, implementing projects
(*kindly tick only one box per question*)
 - Disagree
 - Partly agree
 - Agree
 - Strongly Agree
 - 5.2 stakeholder's participation in the project is compulsory?
 - Not at all
 - Voluntarily
 - Requirement
 - 5.3 The number of stakeholders received training during project intervention period
 - Between 0-500
 - Between 501-1,000
 - 1,001 and Above
 - None
 - 5.4. Number of other Donor funded agencies working in the area?
 - Between 1-5
 - Between 6-10
 - 11 and Above

None

5.5. The target beneficiaries were participating willingly and voluntarily

- Not at all
- Fairly
- Averagely
- Strongly

5.6 Level of interaction and openness between target beneficiaries and the Project

- Not at all
- Fair
- Average
- Strong

6. Fund adequacy for projects sustainability (*kindly tick only one box per question*)

6.1 Community contribute in cash or kind towards their project.

- Not at all
- Fairly
- Averagely
- Strongly

6.2 Private organization contribute towards water and sanitation project

- Not at all
- Fairly
- Averagely
- Strongly

6.3 The Government give funding for the water and sanitation project

- Not at all
- Fairly
- Averagely
- Strongly

6.4 Are there difficulty in accessing external fund from international donors

- Not at all
- Fairly
- Averagely
- Strongly

7. Sustainability of Donor funded water and sanitation project (*kindly tick only one box per question*)

7.1 Project designs easy to replicate

- Disagree
- Partly agree
- Agree
- Strongly Agree

7.2 Target group gained capacity to administer, maintain and operate for a long time

- Disagree
- Partly agree
- Agree
- Strongly Agree

7.2 Beneficiaries linked to institution for support

- Not at all
- Fairly
- Averagely
- Strongly

7.3 level of project positive impact on beneficiaries

- Not at all
- Fair
- Average
- Strong

8. political good will

8.1. The project gained political good will

- Not at all
- Fairly
- Averagely
- Strongly

8.2. water and sanitation project is a priority for the government

- Not at all
- low
- medium
- high

9. The role of management skills in ensuring sustainability of TWSP water and sanitation project

9.1 Does project transfer relevant skills to the target community through training?

- Not at all
- Fairly
- Averagely
- Strongly

9.2 Do the staff have relevant skills to run the project

- Not at all
- Fairly
- Averagely
- Strongly

10. challenges faced by TWSP in ensuring the sustainability of water and sanitation project

10.1 How do you rate political challenges the project is facing

- Not at all
- low
- medium
- high

10.2 What do you say about community contribution challenges the project is facing

- Not at all
- low
- medium
- high

10.3 How is staff corporation towards project implementation

- Not at all
- low
- medium
- high